



Ontario

Ministry of  
Consumer and  
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Branch

# The Boundaries Act

The problem of the retracement of curved boundaries is quite often one which perplexes the surveyor. What if the elements of the original curve are not the same? What do you hold?

A problem of this type came before the Boundaries Act tribunal in an application heard in 1977. The surveyor for the Applicant established the curved boundary of the right-of-way of a road authority by locating the monuments set by the road authority, establishing the chord lengths and making each individual curve tangential to the preceding course. The resulting calculated radii of segments of the curve tied in, were different in varying amounts from the radii shown for the same curves by the road authority.

The surveyor for the Objector, the road authority, did not dispute the positions of the found monumentation as shown by the surveyor for the Applicant. However, he contended that the curved limits under application should have been re-established through the found monumentation by holding plan radius, thus creating curved boundaries non-tangential to the preceding courses at the points of curve.

In delivering judgement the Boundaries Act tribunal wrote as follows:

*"It is a common law and statutory principle in the retracement of boundaries whether they be straight or curved that undisturbed original monuments are true and unalterable and control the retracement of these boundaries, whether or not the straight line or curve is found to agree or disagree with any distance, direction or data stated or alleged in any prior survey or plan. This principle appears to have been accepted by the parties, and as no evidence was adduced to indicate that the found monumentation was not in its original position, the problem before me condenses to the questions as to which mathematical values to retain and which to alter in reconstructing each individual curved boundary, or, in the particular problem, whether the tangentiality of the curve or called-for radius should predominate.*

*"Generally speaking, weight should be given to distances actually measured and points set in the original running of the curve with preference to those operations least likely to contain error. This implies a knowledge of the method used in the original survey. No evidence was adduced with respect to the method*

*by which these curved boundaries were originally surveyed and we must apply knowledge of the practices used by surveyors for this type of survey.*

*"Generally speaking, points on a curved boundary are set by laying off one or more chords, using precalculated deflection angles from the point of curve; the radius never being actually measured. This has the effect of laying off a curve tangential to the preceding straight line course at the point of curve.*

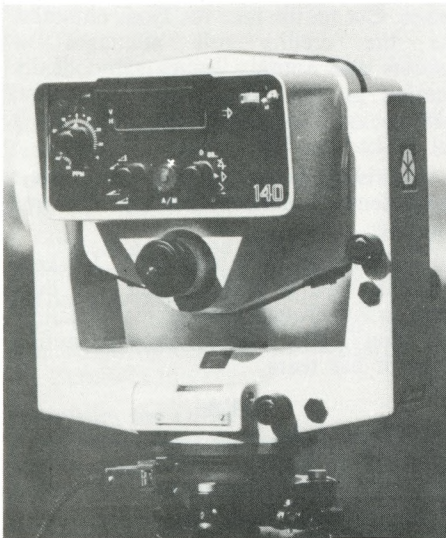
*"I am satisfied that the method of retracement used by (the surveyor for the applicant) in re-establishing tangential curves through the found monumentation and altering the radius is correct in these instances."*

Accordingly, the tribunal denied the objection by the road authority and confirmed the true location on the ground of the curved limit of the road as it had been re-established by the surveyor for the Applicant.

Confirmation and Condominium Section, Legal and Survey Standards Branch.

March, 1981.

## NEW PRODUCTS



AGA Geotronics has developed a unique angle measuring system for their brand new total Station Geodimeter® 140. The new system makes it possible to measure the exact angle in a single face measurement, as opposed to the conventional way in a two face measurement,

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## NOTICE FEE GUIDELINES

"The Fees Co-ordination and Conciliation Committee will be making recommendations to Council regarding suggested fee guidelines. One of these recommendations will be whether or not the suggested fee guidelines for each area, when approved by Council, should be distributed to the surveyor's regular clients. This Committee would appreciate receiving your comments on this matter."

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