

Keeping Legal Surveys Under Control-or vice versa

BY JOHN J. H. HUNT

WHEN LEGAL SURVEYS are performed, the overriding concern is that the original monument location is preserved, while on the other hand, when control surveys are performed the over-riding concern is that of absolute co-ordinated positioning—sometimes these concerns conflict in areas where there are **previously co-ordinated legal surveys combined with newly located Control Monuments.** (To replace either those destroyed Control Monuments upon which the previously legal survey was based, or as additional Control Monuments establish-

ed at the request of the local Borough).

Inasmuch, as a legal survey has to consider and respect settled occupation and monumentation within a prescribed area, then it is beholden that a control re-survey has to consider and conform, when possible, to **settled legal survey co-ordination within the same prescribed area**; - notwithstanding the fact that on such a re-survey the previous co-ordinate values assigned in the prescribed area appear to be less than perfect when considering the newly computed optimum co-ordinate values.

On occupying these NEW Control Stations and where no attempt was made to consider previously assigned co-ordinate values on legal monumentation in determining the final co-ordinated values on these Control Stations, then differences, on legal monuments lying outside the tolerable limits, sometimes occur. To all intents and purposes a tolerable limit could be construed as being 0.015m or less, both in Eastings and Northings; differences in co-ordinates within this range would allow that the monumentation be considered "on" and the previously co-ordinated values **held.**

In those instances when this tolerable difference is exceeded, the following problems occur:

- A. If, as in normal practice, the previously co-ordinated value assigned to the legal point is wished to be held as a "FIX"; then it would be necessary to call the actual position of the legal point **displaced** by the difference between the prior and the recently assigned co-ordinated values - even though the legal monumentation **can be proved not to have moved**, especially when such monumentation is in the form of Bronze caps or cut crosses, such co-ordinate value displacement gives a false impression as to the original legal monument position, or;
- B. the new co-ordinate value from the assigned new Control Monument values on the Legal Point could be held thus disagreeing with previous co-ordinates, bearings and, distances **on plans of record.**

NEITHER CONDITION "A" OR "B" IS SATISFACTORY.

Here follows a few suggestions which would, in a majority of cases, eliminate the problems encountered.

Prior to the setting of FINAL co-ordinates on NEW control monuments

the **closest local previously co-ordinated legal monumentation should be "tied in"** and values calculated from these Control Monuments (the co-ordinates on the Control Monuments **at this stage** would be those as computed through the normal "Manor" or approved program).

If differences in co-ordinates on the same legal point **are found to be greater than 0.015** then ACTUAL regard to the PREVIOUS co-ordinate values on legal monumentation HAS to be taken into consideration PRIOR to any FINAL assigned co-ordinate value on the new Control Monument. As in any survey, the legal monumentation "tied in" has to be verified as to its original position at **the time of the initial co-ordination.** This check can be accomplished by adequate field measurements be it by the crew performing the Control Survey or if necessary by staff conversant with legal re-establishment.

The MAXIMUM difference between previous legal monument values and initial values obtained from the new Control Monuments per the "Manor" program should not exceed 0.030m, differences up to and including this amount could then be "weighted" or apportioned so that the NEW co-ordinated Control Survey AS WELL as the previous legal survey are SUPPORTIVE OF EACH OTHER. As a practical solution an elementary split of any differences comes to mind—but I am sure, with justification, that there are "weighty" arguments against such a simplistic approach.

When the differences are above 0.030m then the assumption has to be that the previous control monumentation values were in error or that the previous methods of field work in assigning co-ordinates to the legal monumentation was in error or possibly a combination of both. In such cases, the previous legal co-ordinates have to be considered erroneous.

In closing, it is hoped that surveyors involved with control surveys do not lose sight of the fact that control monuments and their perpetuation were and are established to provide measurement control mainly for engineering and legal survey projects rather than performing exercises in mathematical perfection. If a surveyor has to wear two hats, one for Control and one for Legal, then let them both be the same size (in co-ordinates).

The above comments and suggestions are solely the ramblings of a legal surveyor who sometimes finds himself lost when trying to juxtapose the legal and control outlooks on co-ordinates within the same organizations — be they private or public.

CONVENTIONAL LINES

Cont'd from page 4

or by a surveyor on their behalf, and that the land was then incorrectly described in words in the subsequent conveyance." I must submit that from the information presented in the article, it appears that no evidence was presented to indicate otherwise. Following Gwynne, J. in **Palmer v. Thornbeck** (1877) 27 U.C.C.P. 291 (C.A.): "As to the true boundary line between lots, the onus probandi lies upon the plaintiff who seeks to change the possession." Although it is admitted that Boundaries Act decisions cannot and should not be used as precedents, the ruling in application B-114 stated that lacking evidence to the contrary, occupational lines reflect the site of an original survey of the boundaries made in accordance with the relevant instruments of title. Query: How is it now that deed lines, which seem not to ever have been marked until some 34 years after the possessory boundaries are fixed, are confirmed as true and unalterable?

While it is most probable that facts and evidence not mentioned in the article have given the Tribunal reason to believe that a conventional boundary was not established, we must as surveyors be careful and selective in reading any material which purports to demonstrate legal principles in boundary retracement. It must be remembered that land registry systems, which initiated the need for paper and descriptions in conveyancing, must not govern the facts on the ground. The registry systems must be recognized as administrative servants to land ownership; not vice-versa. As surveyors it is incumbent on us to act equitably in our quasi-judicial function and not be swayed to tangible numbers by our mathematical minds. Let us not be mere technicians but true professionals. ●