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TOWN PLANNING: THE LAYING OUT OF CURVES

SUGGESTED DESIGN FOR GRAPH AND SLIDE RULE FOR COMPUTING PROPERTIES OF CURVES IN TOWN PLANNING WORK.

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THE mathematical precision now generally required in Canada in block and lot surveys is probably no greater than that obtained in England insofar as each lot or unit of a subdivision is concerned. But whereas in Canada it is the practice to register a plan of subdivision consisting of a number of blocks, which in turn are made up of a number of lots, the single lot is generally the unit in England and its relation to other lots need not necessarily be accurately predetermined. One lot of a subdivision sold in Canada determines the location, shape, etc., of every other lot as shown on the plan of that registered subdivision. In England, as will be explained, each lot is dealt with entirely by itself. This fundamental difference has a consequent effect on the method of survey employed.

In England the general subdivision plan is usually approximately accurate, being compiled from preliminary surveys. On such preliminary plans there is, however, appended a note to the effect that "this plan is subject to modifications and must not be taken as the basis of any contract" (agreement of sale). Fig. 1 is a reproduction in part (on a much reduced scale) of the preliminary plan of Glyn-Cory Garden Village in Wales, from surveys by Mr. Thomas Adams, now town planning adviser to the Commission of Conservation, from whom the writer obtained the particulars of English practice referred to in this article. Lot dimensions and lot numbers, etc., being, when reduced, too small to be decipherable, have been blocked out, the lot numbers being replaced with full black circles. This subdivision lies along the face of a hill overlooking a river valley. Curved roads and other features will be noted.

The actual survey for the purpose of the deed of sale takes place only as each particular lot is sold. A plan of survey is appended to the deed and in some parts of England such a plan may be registered. Such registration is evidently different in effect from that, as in Canada, of the registration of the subdivision as a whole.

While temporary posts may be planted in the preliminary survey these are subsequently removed; after the final survey of a lot no posts or survey monuments of any description in connection with ordinary building lots are left, but most lots have fences erected on their exact boundaries. As every prominent physical feature, building, etc., in England is shown on the ordnance maps (scale

1-2,500) it is to these topographical features already located by survey that the corners or boundaries of the lots are referenced.

It has been pointed out that in the old country land is sold in small lots as wanted for building purposes; comparatively little is sold for speculation. Further, before a lot is sold the streets are graded and metalled, sewers, etc., installed. In this connection it might be noted that the problem of laying sewer and water mains, etc., within the limits of a curved

street apparently does not present difficulties sufficient to justify the adoption of straight streets, as some engineers would insist, if such straight streets are not otherwise desirable.

It is not the purpose of this paper to make any comparative criticisms of English or Canadian methods, but as our provincial town planning acts are based largely on the British Housing and Town Planning Act of 1909, some details of English survey practice have been given. The writer's experience in the case of private surveys in Canada would lead him to believe that in those provinces where land is held under the Torrens system, the requirements of the Land Titles Offices could not, even if from some points of view it might seem advantageous, be easily changed. A basic requirement involves the posting of the corners of all lots having one or more curvilinear boundaries. The posts must be planted with a reasonable degree of accuracy and sufficient information shown on the plan so that lot or block closings may be mathematically checked.

Why do Canadian engineers seem to avoid curves? was a question recently asked by an admitted authority

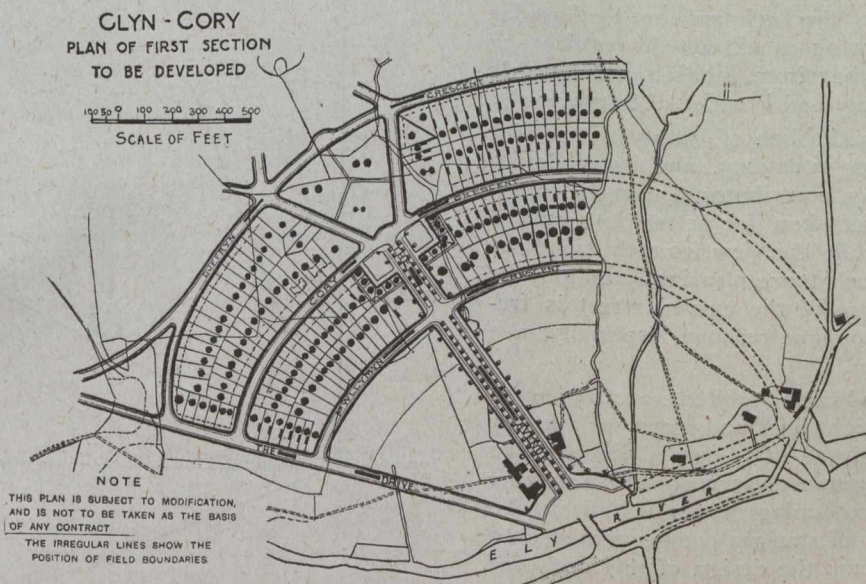


Fig. 1.