LAND BOUNDARIES AND POSSESSORY TITLE-
A REVIEW OF THE RELATIONSHIP

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It may seem presumptuous to suggest that the subject of adverse possession should not be broached until one has a reasonably sound understanding of the origins and nature of property boundaries. This is not necessarily the case when speaking to adverse possession of an entire land unit, but it is particularly true when we speak of encroachments or adverse possession over parts of land units. I draw from my experience as the Examiner of Surveys for Ontario and as Chairman of the Tribunal in many Hearings held under The Boundaries Act to conclude that the subject of land boundaries is indeed misunderstood (and in many cases, not understood at all). The problem, if that is the word, stems from the redundant observation that a given boundary must be re-established in its original position before one can determine if an encroachment has occurred and, if so, the extent of the encroachment. I will attempt in this paper to make the point abundantly clear that a boundary may be reconstructed in its original position by the best available evidence of that location.

In the absence of evidence, and I think one must visualize a wasteland to fulfill this eventuality, then the Statutes provide a mathematical or theoretical alternative which, as we shall see, creates a new line: it will not reconstruct the old. If the lawyer or the surveyor fails to acknowledge that distinction then misery will descend on the land.

I strongly suspect that a great myth exists, and the myth, if I'm right, lies in the assumption that land surveying and boundary definition are strictly controlled by procedures set out in the various Acts and Regulations that have "survey", "title", "boundary" or "registry" in their very names.

I aim to dispel that myth as methodically as is possible in the time available, and to do so we must first determine what a surveyor does and having decided that, how does he do it. For purposes of the subject at hand, I think we can say that a surveyor:

1. Establishes new boundaries, in the sense that he marks out on the ground, or spells out on paper, the configuration and size of new land units. In the truest sense the shape and size of the land units have been created in the mind of the owner of the land; the surveyor is the technical consultant commissioned by the owner to make his creation materialize.

2. Give opinions with respect to the quality of existing boundaries, considered on the basis of the evidence of those boundaries.

3. Re-establishes (re-constructs) those same lines if they become lost or obliterated or confused, again using best evidence.

4. Creates new boundaries to replace those which cannot be re-established.

In the process of examining how a survey is done, I would quickly dispose of The Land Titles Act, The Registry Act, The Boundaries Act and The Certification of Titles Act with the observation that none of these tell a surveyor how to perform a survey. These merely establish minimum standards for plan sizes, mathematical accuracy, etc. However, a small but significant clue may be found in subsection (2) of Section 159 of The Land Titles Act which declares that:

> *"The description of registered land is not conclusive as to the boundaries or extent of the land".*

Translation - Descriptions and evidence might not agree.

Further, section 5(1) of Ontario Regulation 552 under the same Act advises: *"Where a monument no longer exists, all evidence concerning its original position shall be considered in the re-establishment thereof".* Profound but redundant legislation, as we shall see.

The Condominium Act makes reference to boundaries and standards that may, if examined closely, suggest a method of performing very specific types of surveys, but that Act is not relevant to this discussion for obvious reasons.

We may now quickly zero in on the remaining related Act, The Surveys Act, and conclude that this Act does in fact contain very detailed and specific instructions concerning the performance of surveys. The Surveys Act has been referred to at times as the surveyor's bible, or such other names as would imply that it holds the solution to every surveying problem. It is common knowledge in the surveying community that I maintain that The Surveys Act has been misunderstood and incorrectly or improperly applied to resolution of survey problems, and because of this, has brought untold misery to innocent property owners across this Province. Assigning blame where blame is due, the lawyer who insists that a surveyor "stake out the deed" or "stay with The Surveys Act" is as equally guilty of mischief as the surveyor who complies with those instructions (or applies them to his own practice.)

I assure you that I haven't forgotten about possessory title, and that I will be weaving the subject back into the paper in due course. However, I strongly feel that the concept of boundaries must first be explained, and to do this we must also examine the geographic framework of Ontario and the rules of procedures that have evolved from it.

The township with its lots and concessions is the main frame of our land referencing and indexing system, and wherever development occurred, the system was modified (or mutated) by means of "sub-divisions", and I include latter day reference plans in this category, and by the ubiquitous metes and bounds descriptions. Recapping briefly then, Ontario is divided up by:

1. Township Lots and Concessions.

2. Subdivisions (including reference plans) and

3. Metes and Bounds Descriptions.

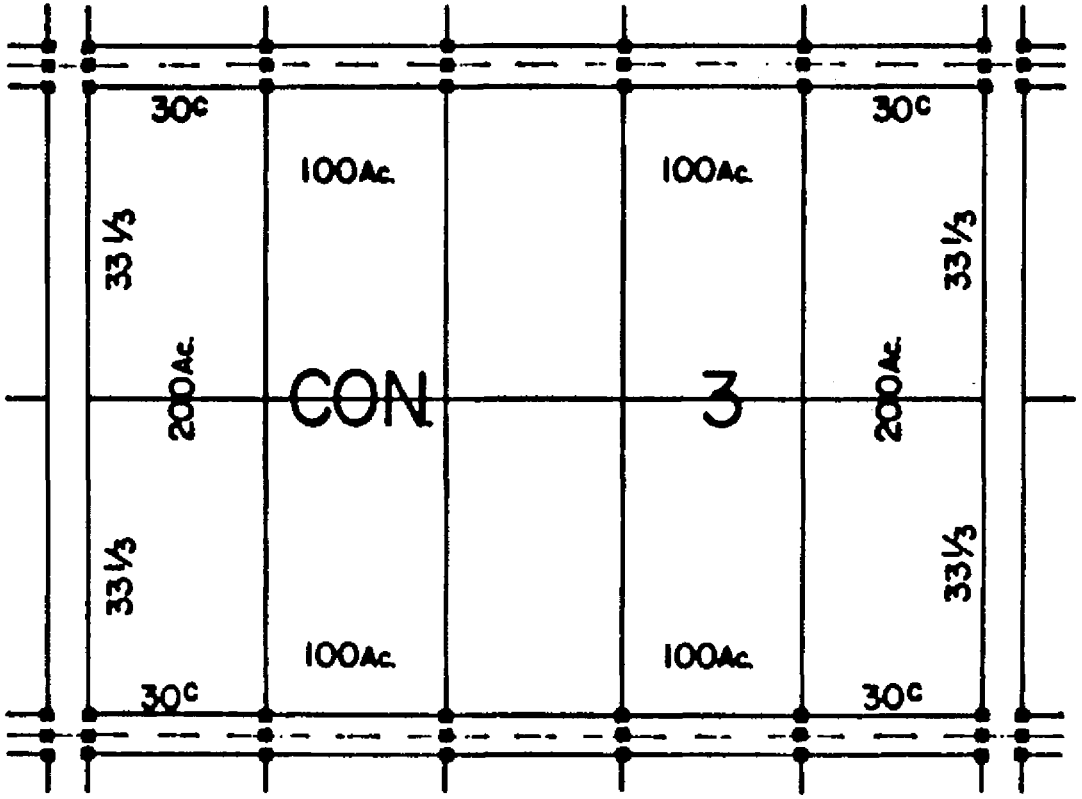
Looking at Townships first, we know that there are many different types of townships that developed or evolved as needs changed and techniques improved, and depending upon where you work, you will be familiar with names such as "front and rear" system, "single front" townships, "double front" townships. The list would go on to embrace 7 or 8 different township systems, each having two or more variations so that the description of the system may often be qualified by the terms "special" or "pattern 1", "pattern 2", etc.

For purposes of this exercise, we will zoom in on a typical "double front" township, and note that the township is made up of blocks of 5 lots, the block limits being defined by road allowances. (Fig.1). Each lot contains 200 acres and it was the practice to patent half lots of 100 acres each.

In the process of creating (marking out) this township, the surveyor was merely carrying out the wishes of the owner (the Crown), and the surveyor's instructions were to survey the concession lines, setting posts at the front corners of the lots. He did not survey the interior lines between the individual lots and ½ lots in this original survey for obvious reasons of cost, and more importantly, time, since the name of the game was to provide land for the influx of settlers. The settlers themselves were held responsible for the establishment of these interior lines, and the Crown, realizing that chaos would ensue if no uniform procedures were available, developed instructions for running these interior boundaries, and codified the instructions in The Surveys Act. Most of the boundaries of the township lots in Ontario were accordingly "established" by land surveyors operating under these instructions. Anyone who has

TYPICAL SECTION OF DOUBLE-FRONT SYSTEM

1818 - 1829



flown over Ontario from Cornwall to Windsor, or from Toronto to Tobermory, cannot refute my statement that most of the lot and concession fabric has been established.

John Dodd, in his paper, has ably described how the original monument on these original surveys would decay and become lost and obliterated with the passage of time. Again, the Crown, in its wisdom, established a fairly comprehensive set of rules for re-establishing this original property framework and those rules again were codified into The Surveys Act. The authors of this legislation were more astute than many of the people who had occasion to use it, because the authors separated the remedy into 2 dinstinct parts, which are:

1. Best Evidence

2. Theory.

An example of this may be found in Section 24, ss. 2 of The Surveys Act, which reads:

> *"A surveyor in re-establishing a lost corner or obliterated boundary in a double front township shall obtain the best evidence available respecting the corner or boundary, but if the corner or boundary cannot be re-established in its original position from such evidence, he shall proceed as follows:"*

Paragraph 3 of that same subsection then goes on to create a new line in a theoretical position:

> *"3 If a part of a township boundary base line or concession line is obliterated, he shall re-establish the same by joining the nearest ascertainable points thereof as intended in the original survey."*

To dispel the notion that these instructions have been taken out of context, we can quickly construct a chart illustrating that these same rules have been applied to the instructions governing every township system described in The Surveys Act. The chart may be superfluous in establishing my argument, but does tend to hammer the point home.

SURVEYS ACT

METHOD OF RE-ESTABLISHING LOST CORNERS OR OBLITERATED BOUNDARIES

SYSTEM	1ST INSTRUCTION	2ND INSTRUCTION
1. Single Front		
(a) Lost Corner	- Best Evidence	- Proportional Division
(b) Oblit. boundary	- Best Evidence	- Join 2 points
2. Double Front		
(a) Lost Corner	- Best Evidence	- Proportional Division
(b) Oblit. boundary	- Best evidence	- Join 2 points
3. 640 Acre Sec.		
(a) Lost Corner	- Best Evidence	- Proportional Division
(b) Oblit. boundary	- Best Evidence	- Join 2 points
4. Front and Rear	ditto	
5. Etc.	ditto	
6. Etc.	ditto	

So, .O.K., you may say, we've flogged Township lots to death but what about lots on a plan of subdivision? We need only turn to section 55 of The Surveys Act to find what we knew all along.

> "55. *A surveyor in re-establishing a line, boundary or corner shown on a plan of subdivision shall obtain the best evidence available respecting the line, boundary or corner, but if the line, boundary or corner cannot be re-established in its original position from such evidence he shall proceed as follows:*"

I said earlier that title is hung on a framework consisting of townships, plans of subdivision and metes and bounds descriptions. I hope we now have some ground rules (!) for townships and subdivisions, but what about M & B Descriptions. Hearkening back to my earlier reference to section 159(2) of The Land Titles Act respecting registered descriptions and extent of land, I translated the section to mean - - be careful - descriptions won't always match the evidence, and there is the magic word again. That particular section does not appear in The Registry Act but I make the suggestion that it need not appear in either Acts: it is a redundant exclamation of natural law.

Where do we go from here? I want to quote from Mr. Justice Cooley, briefly recap the what and how of surveying, illustrate the distinctions by reference to a large recent Boundaries Act Application and wind up by examining some typical applications under The Boundaries Act which had to deal with adverse possession.

What, then, is the judicial function of a surveyor, if that is not too pretentious a description of his functions.

I do not know of a better definition of this function than that given by Mr. Justice Cooley of the Michigan Supreme Court, and the following is the substance of his opinion, excluding only those references to statutes that do not apply here:

> *"When a man has had a training in one of the exact sciences, where every problem within its purview is supposed to be susceptible to accurate solution, he is likely to be not a little impatient when he is told that, under some circumstances, he must recognize inaccuracies, and govern his action by facts which lead him away from the results which theoretically he ought to reach. Observation warrants us in saying that this remark may frequently be made of surveyors. 'In the State of Michigan all our lands are supposed to have been surveyed once or more, and permanent monuments fixed to determine the boundaries of those who should become proprietors. The United States as original owner, caused them all to be surveyed once by sworn officers, and as the plan of subdivision was simple, and was uniform over a large extent of territory, there should have been, with due care, few or no mistakes;..... The truth unfortunately is that the lines were very carelessly run, the monuments inaccurately placed; and, as the recorded witnesses to these were many times wanting in permanency, ...*
>
> *.....*
>
> *"If (latter) disputing parties call in a surveyor, it is not likely that any one summoned would doubt or question that his duty was to find, if possible, the place of the original stakes which determined the boundary line between the proprietors. However, erroneous may have been the original survey, the monuments that were set must nevertheless*

govern, even though the effect be to make one quarter-section ninety acres and the one adjoining but seventy; for parties buy or are supposed to buy in reference to those monuments, and are entitled to what is within their lines, and no more, be it more or less .....

.....

"While the witness trees remain there can generally be no difficulty in determining the locality of the stakes. When the witness trees are gone, ... It is remarkable how many there are who mistake altogether the duty that now devolves upon the surveyor. It is by no means uncommon that we find men whose theoretical education is supposed to make them experts who think that when the monuments are gone the only thing to be done is to place new monuments where the old ones should have been, and where they would have been if placed correctly. This is a serious mistake. The problem is now the same that it was before: To ascertain, by the best light of which the case admits, where the original lines were .....

.....

"The general duty of a surveyor in such a case is plain enough. He is not to assume that a monument is lost until after he has thoroughly sifted the evidence and found himself unable to trace it. Even then he should hesitate long before doing anything to the disturbance of settled possessions. Occupation, especially if long continued, often affords very satisfactory evidence of the original boundary when no other is attainable; and the surveyor should inquire when it originated, how, and why the lines were then located as they were, and whether a claim of title has always accompanied the possession, and give all the facts due force as evidence. Unfortunately, it is known that surveyors sometimes, in supposed obedience to the State Statute, disregard all evidence of occupation and claim of titles, and plunge whole neighbourhoods in quarrels and litigation by assuming to 'establish' corners as points with which the previous occupation cannot harmonize .....

.....

"It is merely idle for any State Statute to direct a surveyor to locate or 'establish' a corner, as the place of the original monument, according to some inflexible rule. The surveyor on the other hand must inquire into all the facts; giving due prominence to the Acts or parties concerned, and always keeping in mind, first, that neither his opinion nor his survey can be conclusive upon parties concerned; second, that courts and juries may be required to follow after the surveyor over the same ground, and that it is exceedingly desirable that he govern his action by the same lights and rules that will govern theirs. On Town plans if a surplus or deficiency appears in a block, when the actual boundaries are compared with the original figures, and there is no evidence .....

.....of the stakes which marked the division into lots, the rule of common-sense and of law is that the surplus or deficiency is to be apportioned

between the lots, on an assumption that the error extended alike to all parts of the block."

Recapping the "what" and "how" of surveying, in light of the foregoing, and focussed more closely on the subject at hand, a surveyor must:

(a) give expert opinion with respect to existing boundaries or

(b) re-establish a boundary in its original position and there are no rules save precedent and the rules of evidence.

Are we ready to talk about adverse possession? I do not think so, because having flogged the word evidence for the past 30 minutes, it is now necessary to look at boundary evidence from a surveyor's point of view, and to see if there is any resemblance to a meeting of the minds between surveyors and lawyers on that subject. I am not a student of the law - I'm not even a law student which would be even better, but I do come from a generation of surveyors that received little or no formal training in boundary law per se. One's knowledge of the subject was derived from attemption to resolve countless dilemas when common sense and the nice easy "theoretical" approach of The Surveys Act were so often in conflict. One came by the Canadian Abridgement or the Encyclopedic Digests almost by accident, but suddenly, one discovered that there was a body of common law and case law that spoke to those very dilemas in terms of logical precedents. These, in turn, led one to Laskin and LaForest, Brown and Elridge, Greenleaf and Justice Cooley, to name but a few, and to the discoverer, surveying would never be the same. Sydney Smith and the late Marsh Magwood, Q.C., both former Directors of Title saw these problems manifest in faulty land records and embarked on a remedy through a series of papers and orders under The Boundaries Act. But these were directed to a narrow cross-section of the survey profession and ignored the legal profession.

This "discovery" allowed the surveyor at last to distinguish certain types of evidence and arrange these in a logical heirarchical structure, extending from the most reliable to the least reliable. The Courts have recognize this structure in various ways, but Greenleaf in his book on evidence set this down in simple terms. I can't lay my hands on Greenleaf at the time of writing, but will paraphrase, taking great liberties with his thoughts and words.

In effect then, when considering evidence, a surveyor must rely on the following evidence in the order named:

1. Natural boundaries

2. Original monuments

3. Fences of possession which can reasonably be related back to the time of the original survey.

4. Measurements.

All of the above, of course, is predicated on common sense. "The general rule to find the intent where there is any ambiguity in the grant, is to give most effect to those things about which men are least liable to mistake."

The town of Massey is a pleasant little village on the banks of the Spanish River, about 50 miles west of Sudbury. It is an old town by Northern Ontario standards, having been established by the Spanish River Lumber Company before the turn of the century, and was, for years, the centre of a lively logging industry.

The village also straddles two section limits which have the effect of dividing the village roughly into 4 quarters two of which were patented under The Land Titles Act, and the other two patented under The Registry Act.

Plans of subdivision covering all of the lands were prepared by qualified surveyors and the plans were registered in the Land Registry Office in Sudbury. Over the ensuing years, 3 of the areas were built upon and lived upon. The fourth, being owned by the lumber company though subdivided, was not developed and was left more or less in its natural state.

In or around 1970, the Municipal Officials reported to our office that it was not possible to have surveys performed in Massey because of the apparently huge errors in the original plans and the utter impossibility of reconciling the occupational limits with the theoretical position of the boundaries.

In attempting to resolve the problem we set up the following program:

1. Map all the village from aerial photography and prepare plans showing all buildings, streets, fences, hedges, drives, etc.

2. Prepare traditional survey of all the street patterns (block outline survey) using, if necessary, the centre line of the built-up roads as the best evidence of the original location of the roads. The block outline surveys to be confirmed under The Boundaries Act.

3. We then overlaid the old registered plans on top of the block out-line survey and these in turn were overlaid into the aerial mapping with the following results:

4. The title to all 800 properties were searched, The Registry Act title converted to Land Titles, The Land Titles Parcels were all re-drafted and the title for the whole village consolidated into 6 new registers.

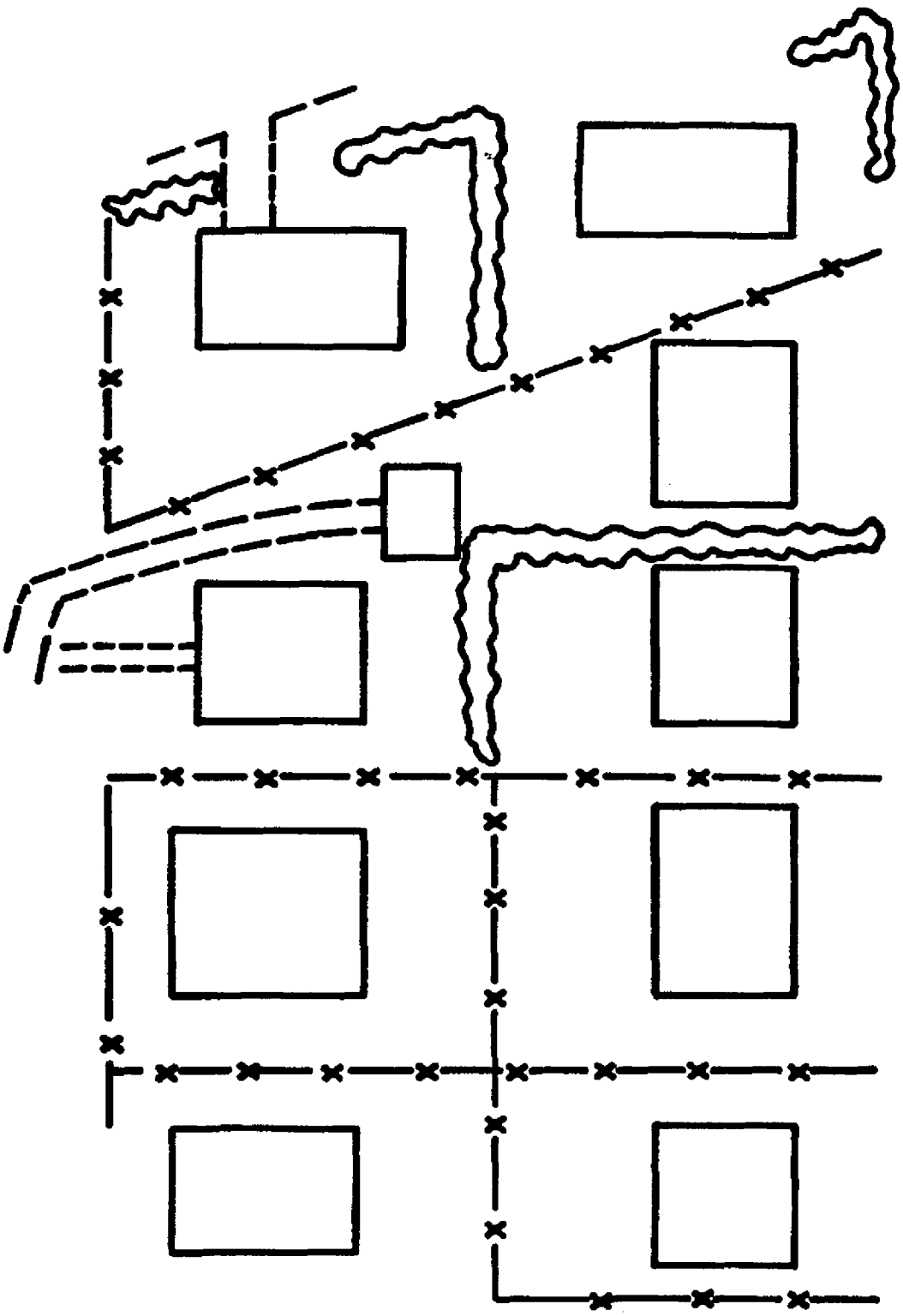
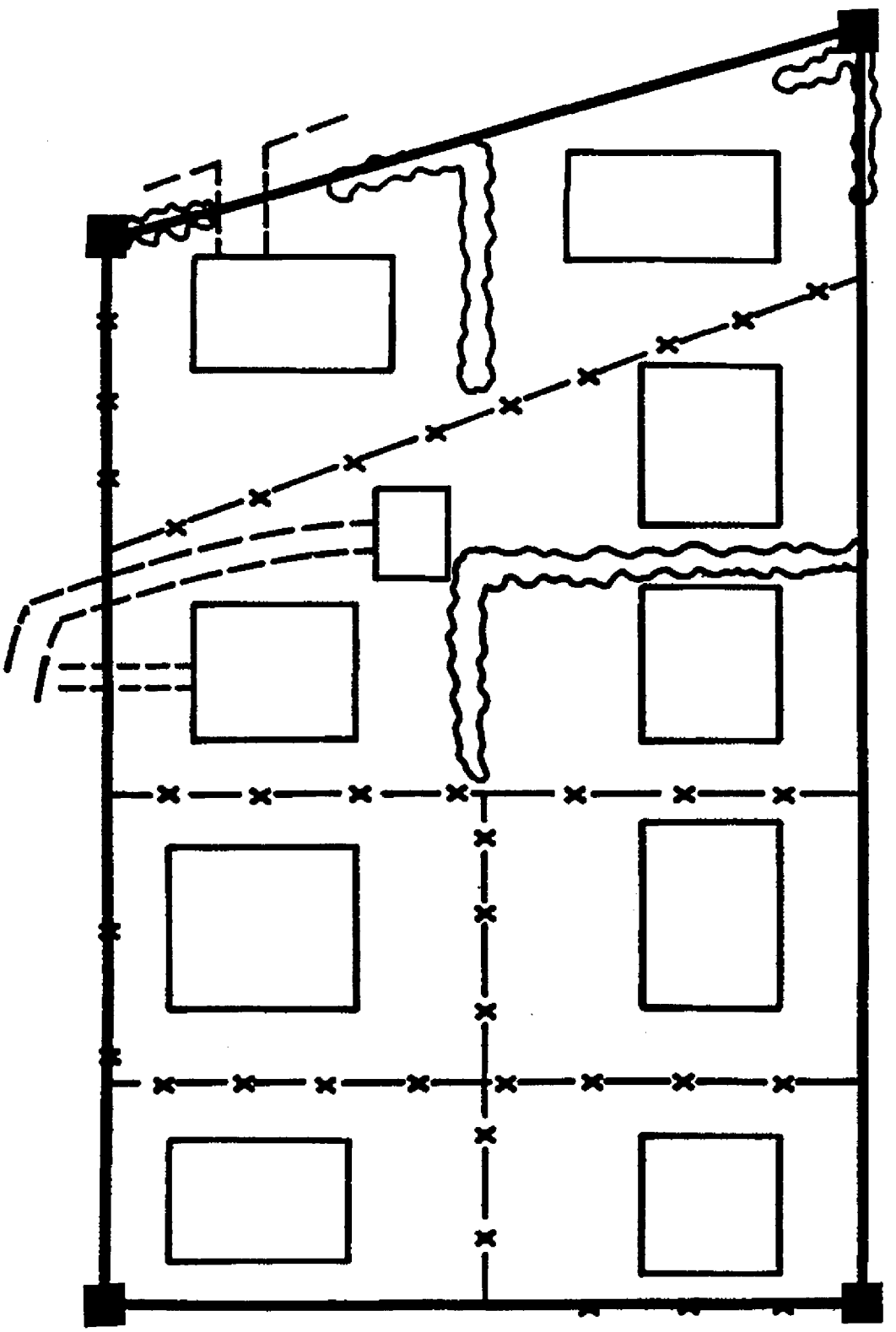


Figure 3



When all surveys, title searching and plans were completed, a combined hearing was held in Massey, the first under The Boundaries Act chaired by me and the second under The Land Titles Act and chaired by one of the lawyers from our Property Law Branch. In effect, the two hearings ran simultaneously, allowing us to hear evidence respecting a title problem, turn the hearing back to The Boundaries Act and confirm the limits of the property in question.

The following diagrams represent some of the problems that were brought to the hearing by the property owners on objection, and the manner in which the tribunal dealt with the situation. I have taken a tremendous amount of liberty with the facts, and beg the indulgence of anyone who may have in the past or in the future, become involved with these lands.

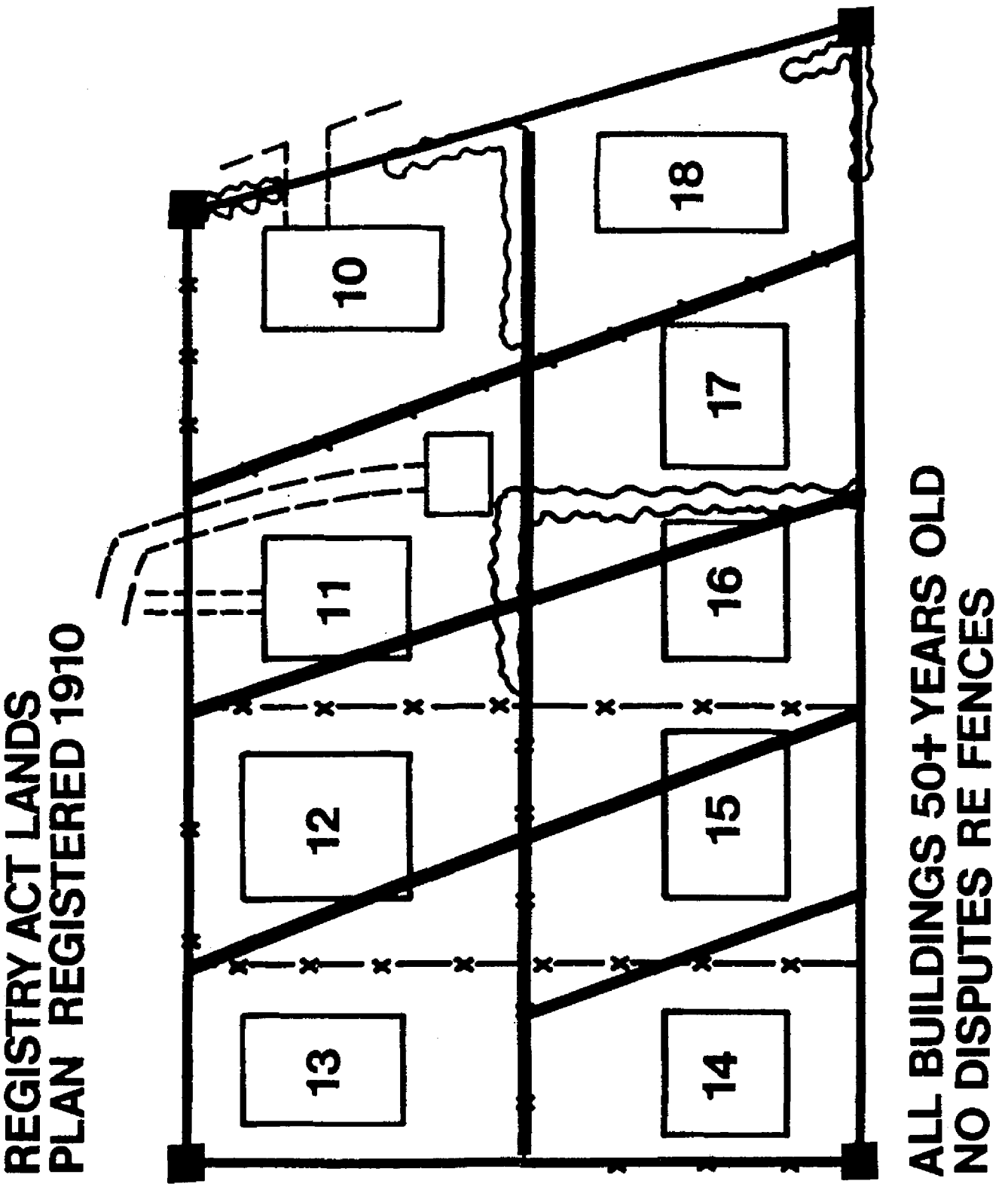
Figure 2 illustrates the occupational evidence as derived from the aerial photography. The x's typically represent fences and the wavy lines, hedges of course, the squares of the buildings with their driveways, etc. In Figure 3 it can be seen that The Boundaries Act block out line survey has been overlaid onto the topographical information and it is apparent that occupation at least in the block limits is consistent with this Boundaries Act survey. However, in Figure 4 we have put the third layer of information on the plan and that is the lot limits as derived from the registered plan of subdivision. One can quickly see that there are overlaps and encroachments on every lot save 10 and 18.

This, of course, precipitated "class action" objection from the owners of all of the lots save 10 and 18, and on cross-examination of the surveyor he testified that he merely transposed the lot line information from the registered plan to this new plan and that he had neither consulted the various owners affected by his actions nor had he researched the plan to determine if that in effect was the manner in which the surveyor had actually staked the subdivision. He subsequently testified that he was unable to find any evidence to the effect that the individual lot lines had been surveyed in the original survey of this subdivision.

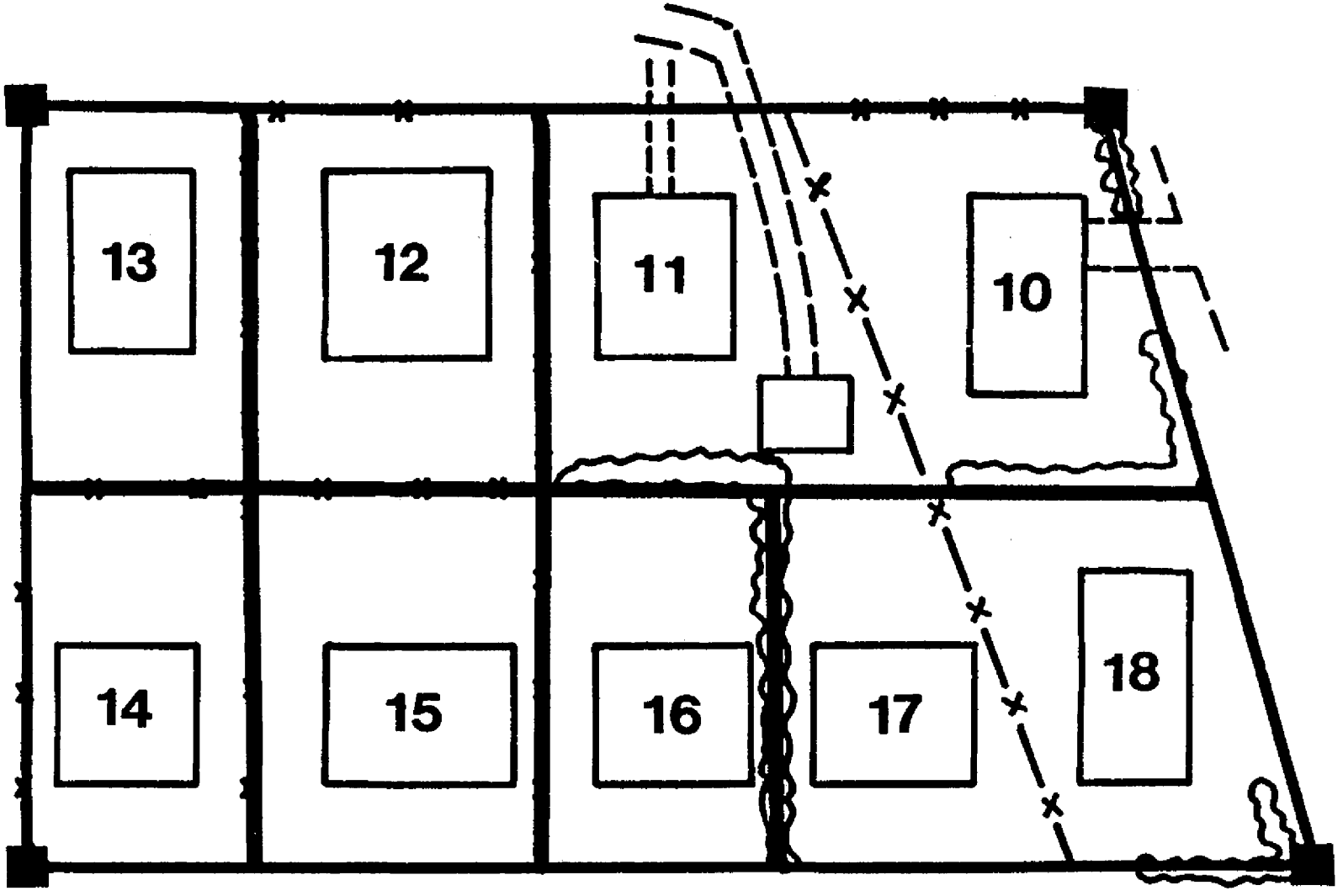
The objectors, in presenting their evidence, elicited testimony from a gentleman who was 80 years old, who had lived in Massey all his life, and had a most astounding recollection of people and events in that community. He testified that he personally knew the subdivider in this case, and that the subdivider had told him that the surveyor had made a mistake in drawing the lines on the plan. Further, that the surveyor who did the job was drunk all the time. He said that, on a couple of occasions, he had helped the owner plant wooden stakes on two or three of these lots, to assist purchasers in setting their foundations and building their fences.

The objectors further produced an affidavit from a father of the owner of one of the lots and another affidavit from a grandfather of the owner of another lot, both of which set out the fact that the owner of the lots had shown them where their property lines were and had planted wooden stakes to mark out those lots.

Figure 4


REGISTRY ACT LANDS
PLAN REGISTERED 1910
10
11
12
13
14
15
16
17
18
ALL BUILDINGS 50+ YEARS OLD
NO DISPUTES RE FENCES

..EGISTRY ACT LANDS
PLAN REGISTERED 1910



ALL BUILDINGS 50+ YEARS OLD
NO DISPUTES RE FENCES

Figure 4

In view of the fact that peaceful occupation had been enjoyed by these people for up to fifty years, they could have, no doubt successfully, pleaded possessory title. However, in this contest of evidence it was apparent to me that the registered plan of subdivision represented a classic case of misdescription, and I accordingly ordered that a new plan be drawn to correct this misdescription and to reflect what the owner had in fact intended to sell and further to reflect what the purchaser thought he was buying. Figure 4 illustrates the lot fabric on this new plan as it was subsequently registered.

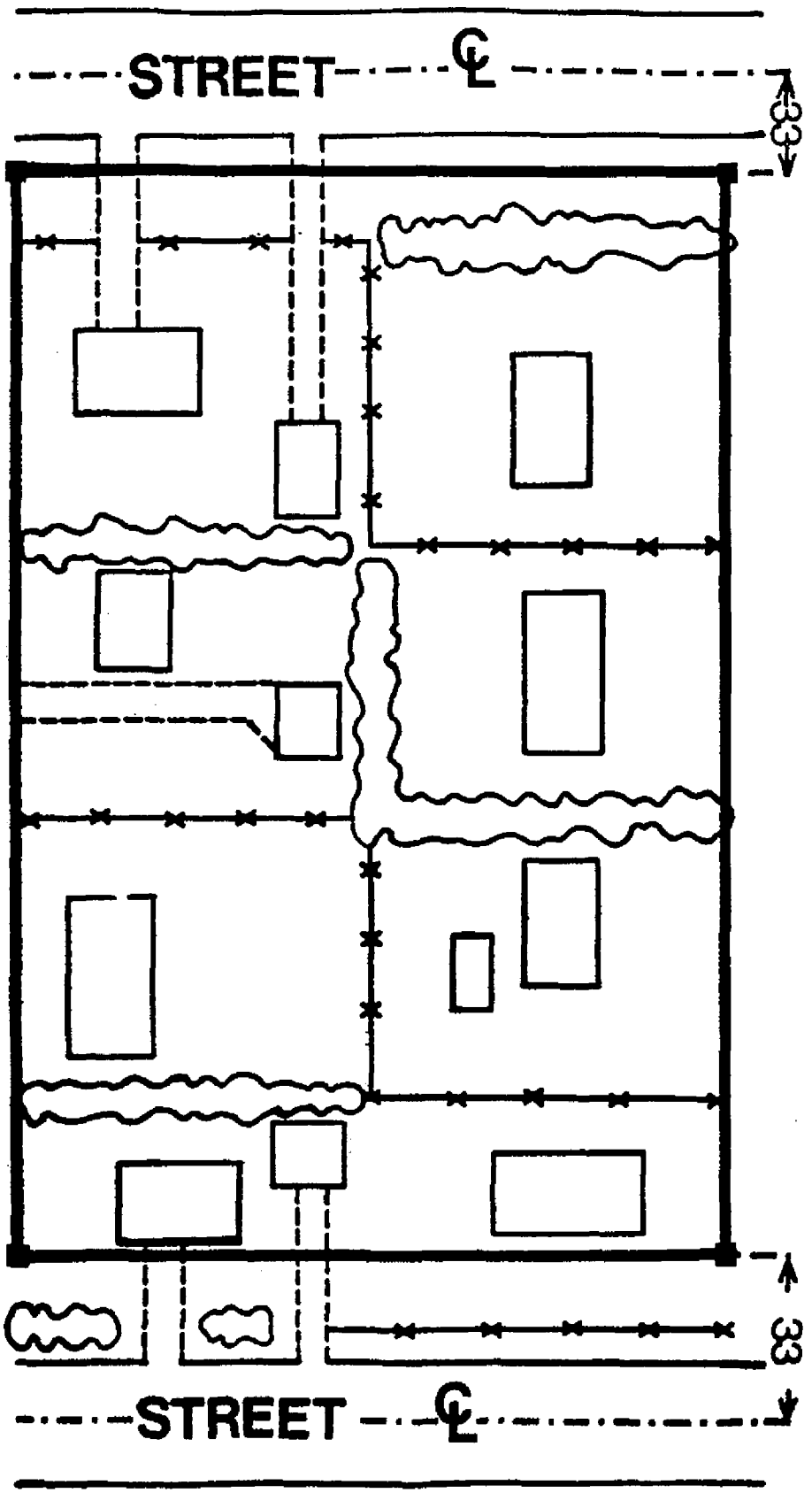
Figure 5 shows another situation in the same area, with slight variances. In Figure 6 we can again see how The Boundaries Act block outline survey was overlaid onto the photogrammetric base, and the lot lines again as derived from the former registered plan were also superimposed to form the composite plan. This again precipitated a "class action" objection and the surveyor, under cross-examination, (and beginning to see the light) testified that first of all the block outlines were consistent with the travelled streets and consistent with the other block conformed remarkably well with those shown on the registered plan. He further testified that this was in fact a different plan prepared for a different subdivider by a different surveyor than was the case in the previous illustration, and that from an examination of the plan and the original field notes of the surveyor, the individual lots had been surveyed and marked with stakes in the original survey.

The objectors, for their part, testified that they had measured out these properties by themselves and that they had agreed amongst themselves as to the various boundaries, and that the owner of Lot 21 was an engineer and he was the first one in the block to build his house and measure out his fences, and it was deemed that he knew what he was doing. The objectors further testified that for the most part they had laid off their property lines by measuring from the fences on Lot 21 and that although there may now be an error they should be entitled to the lands that they had occupied.

Again, in this contest of evidence, I was forced to rule that the lot lines as set down by the surveyor were in fact the true lot lines and that they should be confirmed in that position. I then advised the objectors that they should plead their case for possessory title before the Director of Titles in a subsequent hearing on an application for first registration to The Land Titles Act.

Figure 7 illustrates a situation that was, as you can see, becoming common place in this particular application, and the testimony of the surveyor under these circumstances was similar to that given in the first illustration, and that was to the effect that no stakes were planted in the original survey covering the corners of the individual lots.

The objectors, again through their 80 year old witness, testified that he had in fact assisted the original subdivider in placing wooden stakes to show the purchasers of these lots where their lines were to be run.


STREET
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33
33
STREET
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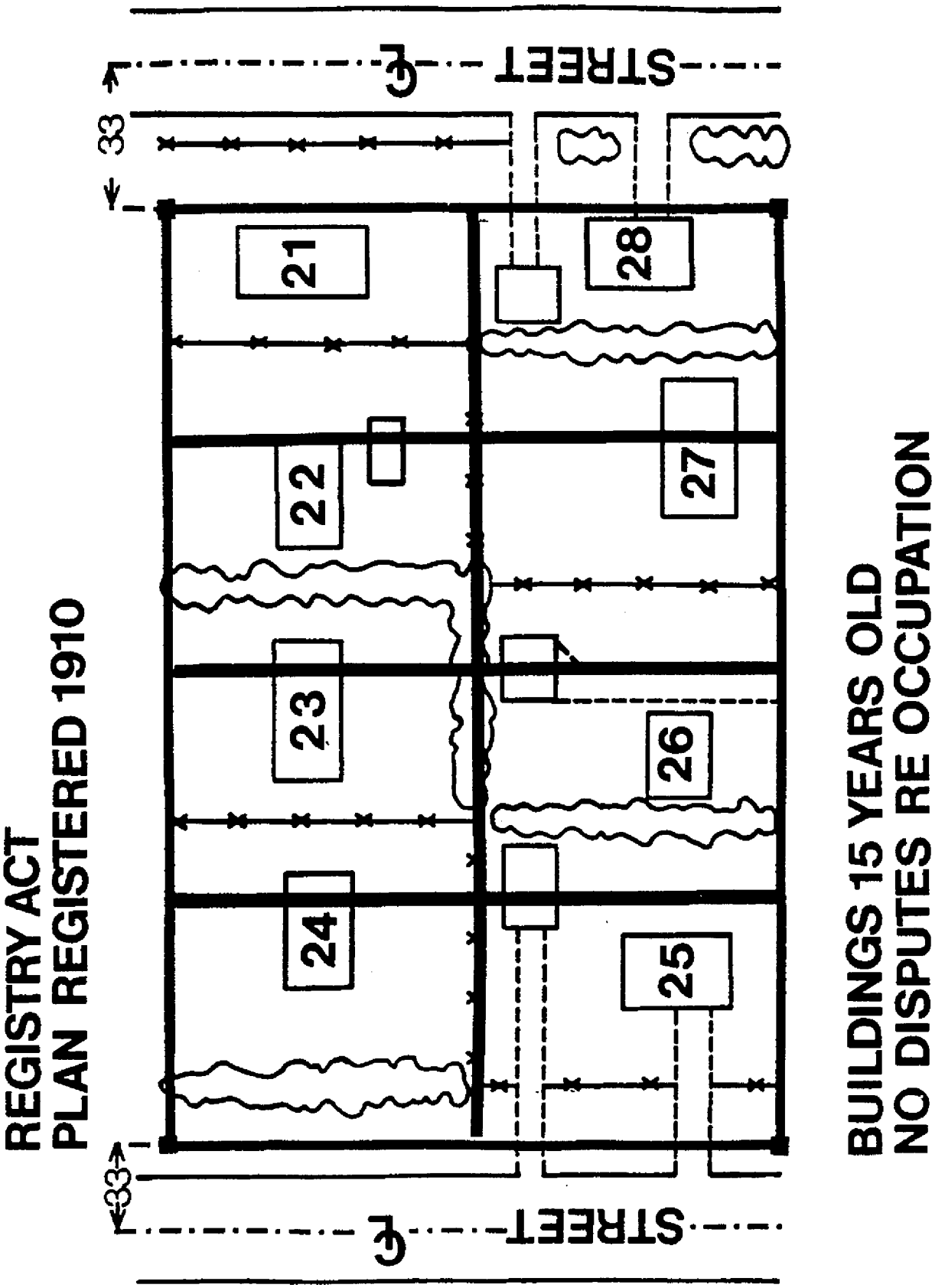
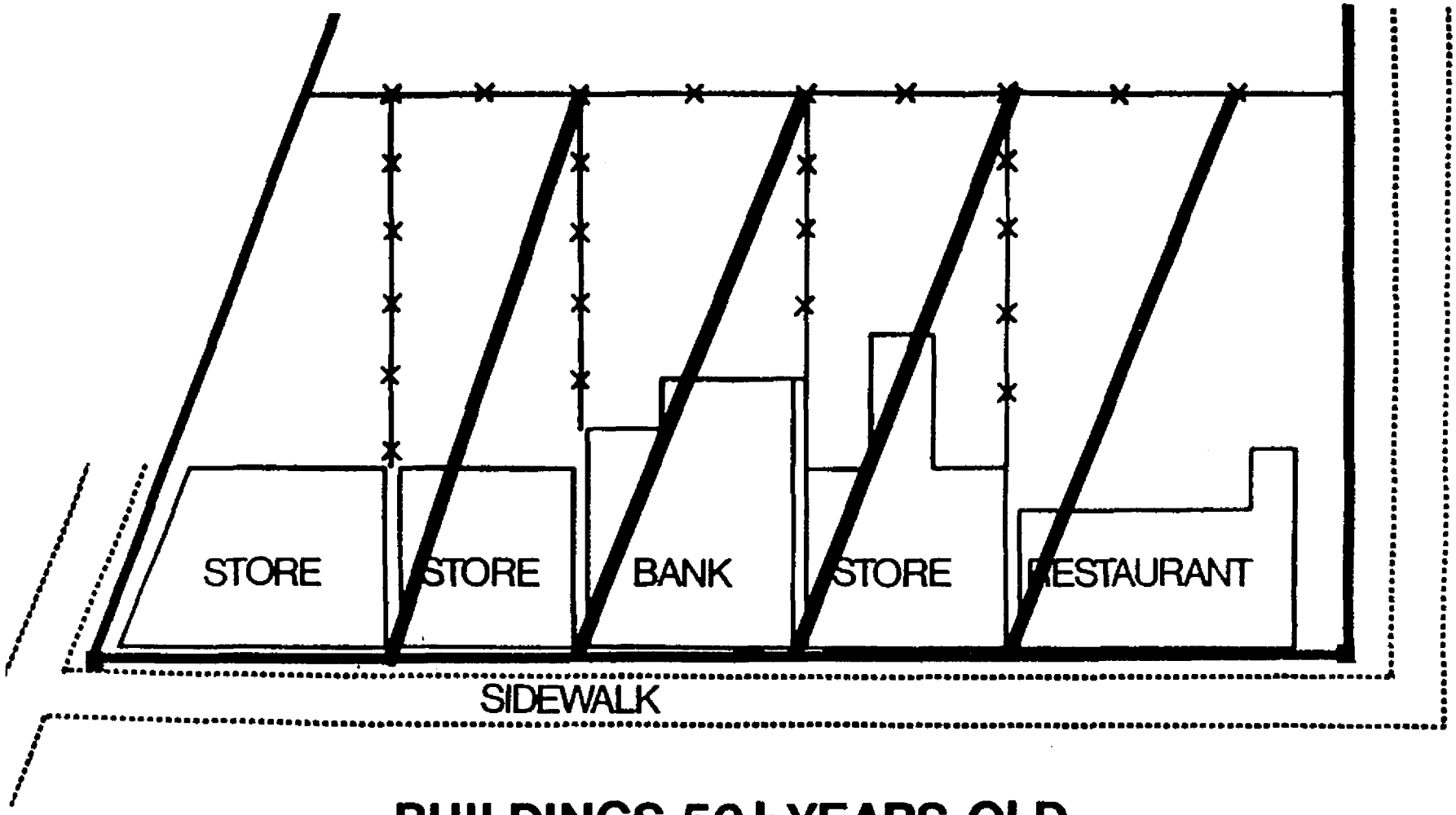
Figure 6


REGISTRY ACT
PLAN REGISTERED 1910
STREET
33
21
28
22
27
23
26
24
25
33
STREET
BUILDINGS 15 YEARS OLD
NO DISPUTES RE OCCUPATION

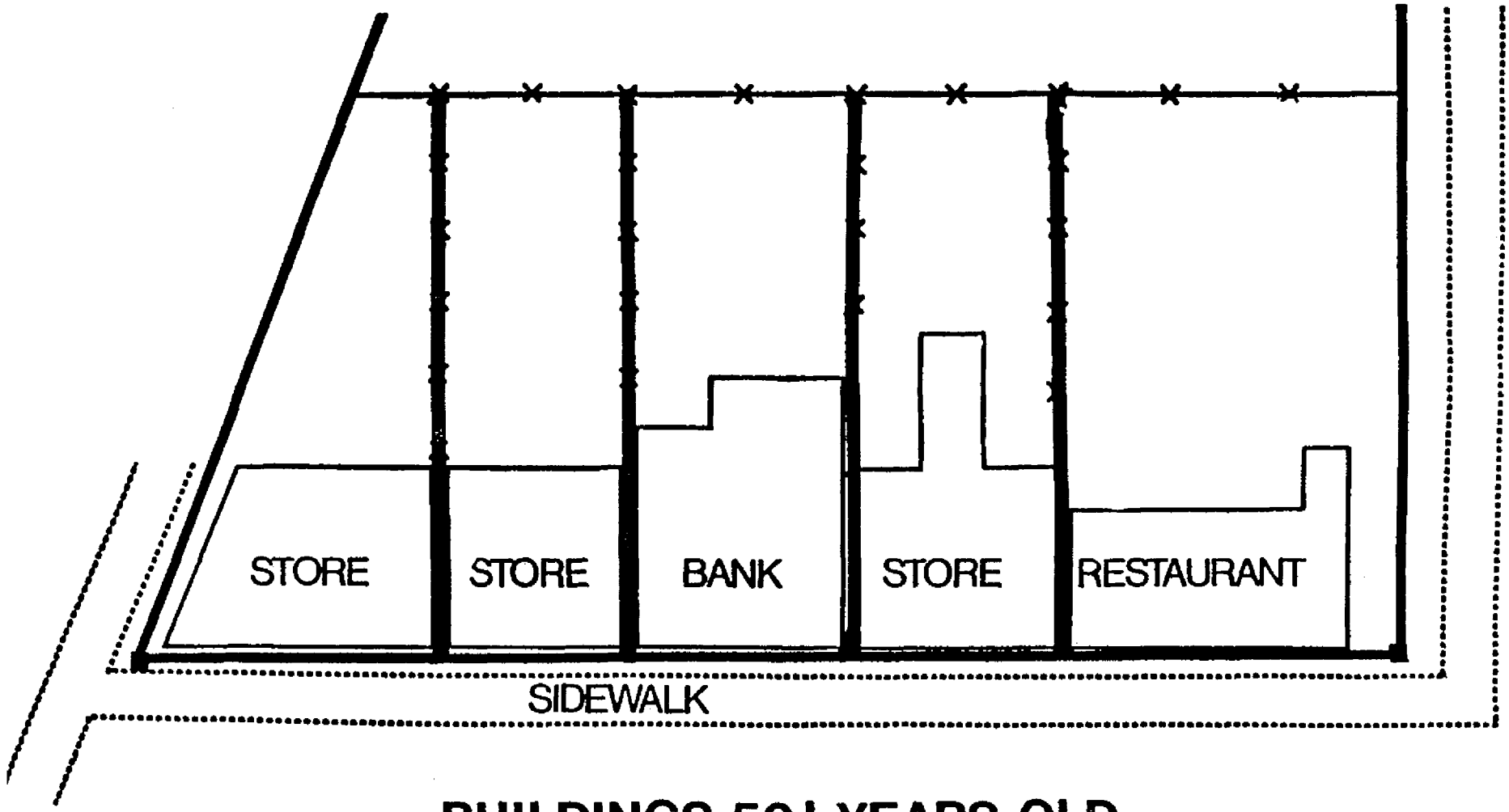
REGISTRY ACT
LANDS PLAN REGISTERED 1908



BUILDINGS 50+ YEARS OLD
NO PREVIOUS DISPUTES

Figure 7

REGISTRY ACT
LANDS PLAN REGISTERED 1908

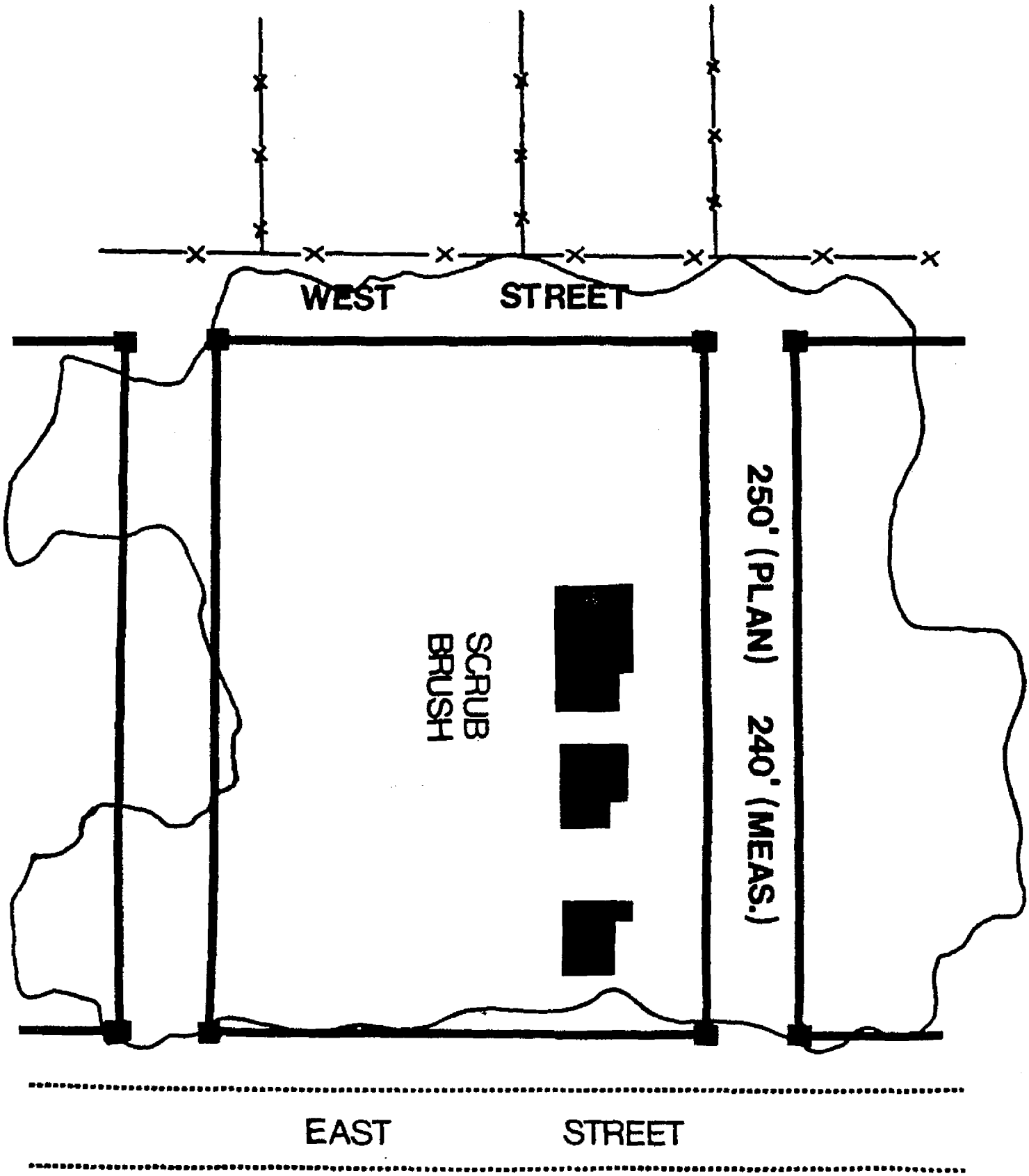


BUILDINGS 50+ YEARS OLD
NO PREVIOUS DISPUTES

He also advised that the subdivider told him that he was aware that the lines as set out on the ground were not in the same location as those set out on the plan but that some dumb draftsman had made a mistake. There were further affidavits by the owners and predecessors in title confirming that the existing occupation could be traced back at least 50 years and that no disputes had ever arisen between neighbours with respect to their boundaries. They further argued that common sense demands that the lot lines of the properties on the main business street of the community would run perpendicular to the main street and not at some unreasonable angle.

Accordingly, I ruled that this again was an example of misdescription on a registered plan of subdivision which had failed to reflect the lots as created in the mind of the owner at the time of the subdivision and that the lot lines should be amended to conform with the occupation. The surveyor was ordered to amend the plan which was subsequently registered in the configuration shown in Figure 8.

Figures 9 and 10 are not intended to illustrate a possessory title situation, but are included here to demonstrate how, in a real life situation, the theoretical or methematical instructions as set out in The Surveys Act were used to position property boundaries. This particular area had remained undeveloped for some 60 years but had been subdivided by registered plan over that period. This particular block contains two tiers of five lots each and as can be seen from Figure 9, the surveyor disclosed that there was a shortage in this block between East Street and West Street, amounting to 10 feet. Now in the absence of any other evidence, the surveyor, in these circumstances, is compelled by common sense and common law, to distribute the shortage equally amongst each of the lots. However, before the individual lots were marked out on the ground, three of these lots were sold and the new owners, wishing to build their houses, measured out three 50-foot lots from the survey monument on East Street. They put in their basements and applied for a first draw on their mortgage at which time they were instructed to submit a surveyor's certificate. The surveyor went on the ground and laid out the lots with the result seen in Figure 10. A municipal by-law requiring a 4-foot side yard, required the surveyor to disclose that the first building was 2 feet too close to the line; that the second building was right on the line, and that the third building was 2 feet over the line. Under these circumstances, the owners were,of course,unable to plead adverse possession and they were unable to plead misdescription, and finally had to resolve their problem by an exchange of lands which, of course, had to be processed through the Land Division Committee.


WEST STREET
250' (PLAN) 240' (MEAS.)
SCRUB BRUSH
EAST STREET

EAST STREET
PLAN REGISTERED 1912
BUILDINGS ERECTED 1973
250' (PLAN) 240' (MEAS.)
SCRUB
BRUSH
WEST STREET