LAND USE, PRICE CHANGES AND SPECULATION ON THE URBAN FRINGE: AN INTER-TEMPORAL CASE STUDY IN THE VICTORIA AREA, B.C.

by

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ABSTRACT

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The price of urban and suburban land in most of the Western World has been increasing at a particularly rapid rate. In fact, land value increases appear to be consistently and disproportionately greater than the rise in either general consumer prices or costs of residential construction. Raw land values are an important element influencing both the quality and quantity of housing made available, and as such, constitute a relevant social concern. Furthermore, land values to a certain extent dictate the type of development that an urban area undergoes.

Land speculators have frequently been blamed for causing, or at least contributing to, not only these price increases but also the sprawl-like pattern of development so often associated with urban peripheral areas. This

thesis attempts to test the validity of these claims by analyzing data from a specific inter-temporal study of land uses., price changes and land values in an urban fringe environment.

The community selected for this study was the Municipality of Saanich, which is located immediately north of the City of Victoria, British Columbia. Over 2600 separate properties were sampled, with considerable amounts of data for each -- including such inputs as the changing selling prices, holding periods and development information -- that were obtained through the municipal assessment roles and the searching of titles in the land registry office. The time horizon selected was 21 years (1949-1970) in order to encompass several stages of business activity. A special computer program using elements of multi-variate analysis assembled the various inputs into a workable format, whence portions of the data could be further analyzed and compared.

It is suggested that the level of transactions and the increasing average raw land values have been influenced by both public and private actions in response to the continuing urbanization of the Victoria area. This study

further contends that land speculation per se has not exerted a significant influence either on land prices or on the actual pattern of development in the study area. Population pressures and rising levels of per capita incomes are suggested as being factors of more significance in this context.

PREFACE

This study is part of a large research project undertaken for the Union of British Columbia Municipalities (UBCM). Originally intended to investigate the the effects of land speculation on the community, the entire project was financed through a grant from the Federal Government's agency Central Mortgage and Housing Corporation (CMHC). The following motion endorsed by the UBCM indicates the scope of their interest in this area:

> "WHEREAS much of the value in land which accrues from the prospect of development should rightfully be the property of the community, not of private individuals;
>
> AND WHEREAS the enhanced value of urban and suburban land is due in no small measure to municipal planning, works and services;
>
> AND WHEREAS the high cost of land is one of the basic causes of the current housing shortage:
>
> THEREFORE BE IT RESOLVED that the UBCM executive be requested to set up a committee to consider means of curbing and offsetting the adverse effects on the community of land specualtion."

Three urban areas in the Province were selected for the project: Greater Victoria (Saanich), Greater Kamloops

and Greater Vancouver (Richmond, Surrey, Port Coquitlam and Delta). Data for this study of the Victoria area was collected in the Spring of 1971 as was that for the Kamloops area, (see the forthcoming MBA Thesis on land speculation in the Kamloops area, by Bruce L. Richmond; some of the theoretical portions of both studies are identical).

ACKNOWLEDGEMENTS

During the course of this study I have received guidance and assistance from a number of people, and it is my pleasure to acknowledge them here.

I would particularly like to express my gratitude to Professor S.W. Hamilton for his valuable assistance, experience and constructive criticism throughout all phases of the study.

My thanks are extended to Mr. Dennis Grimmer of the Saanich Planning Department, for providing considerable background information and for aiding in the selection of sample properties from the legal maps. The staff of the Assessment Department in Saanich provided invaluable assistance during the course compiling the data for the sample properties. Information with respect to transactions, property values and ownership characteristics was collected in confidence, and I am especially indebted to Mr. William Craven, Municipal Assessor, for his gracious cooperation.

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CHAPTER I

INTRODUCTION

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> Land is a precious resource which varies in value and use both spatially and through time. Its location relative to current economic activities may largely determine its value; technological changes ... may greatly influence changes in the use to which it is put. With present day urban expansion and the resultant intense competition for the land around cities and along transportation routes, wise planning and firm control of economic expansion are urgently needed to protect the public interest.[1]

In the opinion of many, the use and misuse of land resources in and around urban areas is one of the principal domestic issues of our time. The particularly rapid growth occurring on the fringes of central cities has resulted in a very high rate of land use shifts and increases in real property values in these areas. To a certain extent, land values dictate the type of development that occurs in areas undergoing urbanization. Land values are subject to the demand/supply forces of the market place, and land itself, as a commodity, is susceptible to the actions of developers, investors and speculators. In fact, land speculators have frequently been blamed for causing, or at least contributing to, both the current rise in land prices and the sprawl-like pattern of developments particularly evident on urban peripheral areas. The purpose of this thesis is to examine the validity of these claims.

There is no question that the price of urban and suburban land in most of the Western World has been increasing at a particularly rapid rate. Moreover, land value increases appear to be consistently and disproportionately greater than the associated rise in either general consumer prices or costs of residential construction. The price of undeveloped urban land is an important factor influencing both the quality and quantity of housing made available, and as such, constitutes a relevant social concern.

According to statistics compiled by Central Mortgage and Housing Corporation (CMHC), land costs for residential purposes in Canada have increased from $684 per lot in 1949 to $4,258 in 1970 -- more than a sixfold increase in 21 years. During the same period, the cost of residential construction has only slightly more than doubled, from $7,751 to $16,904, and the consumer price index has increased by 67 per cent. Table 1 lists complete figures for these three elements. As these statistics are based on national averages, they are somewhat conservative when compared to the trends evident in the study area.

Table 1

COST OF RESIDENTIAL LAND AND CONSTRUCTION,

AND CONSUMER PRICE INDICES, 1949-1970

Year	Cost of Land $	Cost of Construction $	Consumer Price Index
1949	684	7,751	100.0
1950	n.a.	n.a.	102.9
1951	1,048	9,568	113.7
1952	n.a.	n.a.	116.5
1953	n.a.	n.a.	115.5
1954	1,687	10,472	116.2
1955	1,819	10,777	116.4
1956	2,025	11,574	118.1
1957	2,260	11,766	121.9
1958	2,471	11,762	125.1
1959	2,533	11,946	126.5
1960	2,473	11,920	128.0
1961	2,602	12,041	129.2
1962	2,783	12,204	130.7
1963	2,973	12,448	133.0
1964	3,082	13,100	135.4
1965	3,095	13,992	138.7
1966	3,480	15,457	143.9
1967	3,580	15,669	149.0
1968	3,746	15,774	155.2
1969	4,201	17,197	162.1
1970	4,258	16,904	167.6

Source CMHC, Canadian Housing Statistics 1970, Table 85, p. 70.
Statistics Canada.

The urban fringe area selected for this study was the Municipality of Saanich, a community of some 70,000 immediately north of the City of Victoria. Although the methodology and approach used to obtain the data is detailed in Chapter IV, a brief outline is appropriate at this stage. Information concerning the changing selling prices, holding periods, owner characteristics, and development information was obtained for over 2600 separate properties in the study area -- a 13 per cent sample of all taxable units in Saanich. Planning Department statistics, municipal assessment roles, and the searching of titles in the land registry office were used to obtain the relevant information for each property. A 21 year time horizon (1949-1970) was selected in order to encompass several stages of business activity.

CHAPTER ORGANIZATION

To many persons, "land speculation" is a term frought with emotional overtones. It is the intention of Chapter II to present a general, unemotional discussion on the concept of land speculation. Included in this discussion are topics such as the economic and social implic-

ations of the North American attitude towards land resources, the characteristics of undeveloped land facing urbanization, the presumed effects of speculation, and an analysis of popular misconceptions concerning speculation.

In any discussion of land speculation, the whole subject of private land ownership and public controls becomes a critical consideration. In light of this, Chapter III views the subject of land values and speculation in relation to the fundamental concepts underlying the control of land use. The main areas to be considered include the public interest in land resources in general, the North American system of land tenure, the case for public intervention in land uses, as well as the methods for controlling land use.

As mentioned earlier, the actual scope and methodology of the study will be outlined in Chapter IV. This will include a discussion of data sources and sampling procedure. A special computer program was created, using elements of multi-variate analysis, in order to assemble the various data inputs into a workable format.

Chapter V will investigate the characteristics of the study area. The historical and spatial development of the

Victoria area will be traced for the purpose of establishing the present position of Saanich as an important element in the regional context.

Analysis of the sample data will be undertaken in Chapter VI. Included in this chapter will be a discussion of the problems associated with certain unavoidable deficiencies in the data collection, and an analysis of price changes and development characteristics.

The major conclusions of the study will be presented in Chapter VII, along with the relevant implications and suggestions for possible further research in this area.

REFERENCE

1. Charles N. Foreward, Land Use of the Victoria Area, B.C., Geographical Paper No. 43, Geographical Branch, Department of Energy, Mines and Resources, Ottawa, Queen's Printer, 1969, page 1.

CHAPTER II

LAND SPECULATION: A GENERAL DISCUSSION

INTRODUCTION

As the population of urban areas increases and subsequently the demand for land for urban uses rises, cities tend to spread outward, encroaching upon land in the suburban zone. The movement is a continual process which converts land previously used for agricultural purposes into urban use. With this in mind, the value of any unit of vacant fringe land may be considered as being in two parts --the value in its existing use, and its potential development value. Development value is the difference between the value of land in its existing use and the value in its highest and best use.[1] The major portion of urban land has no development value because the existing use of most urban land is also its highest and best use. In the case of vacant land on the urban fringe where the highest and best use is some type of urban development, the development value may be substantial. By taking advantage of the forces working towards increasing urbanization, the land owner or investor attempts to make a profit from rising development values.

Land speculation may be defined as the holding of land resources in their present uses--and often in lower uses than those justified by the prevailing market conditions--while awaiting an expected increase in property sales values.[2] The usual method of operation is to acquire

blocks of land well in advance of urban growth and to hold them off the market until such time as they are ready for urban uses. As Barlowe notes, the term "land speculation" is also used in other contexts:

> It is sometimes applied to any holdings of landed property with the hope that it can later be sold at a profit. Practically all property owners qualify as speculators under this definition. At times, it is also used to describe the activities of builders and land developers who develop farms, subdivisions, houses, shopping centers, and other properties on their own with the intent of selling them at a profit after the development process is completed. These operators have some characteristics in common with the traditional speculator; but they are often interested mostly in the use of their development programs as a means of marketing their labor and managerial abilities.[3]

This chapter examines the concept of land speculation within the following framework:

1. Speculation in general commodity markets;
2. North American attitudes toward land;
3. Land speculation -- the presumed effects;
4. The market for undeveloped urban fringe land; and,
5. Land speculation reconsidered.

SPECULATION IN GENERAL COMMODITY MARKETS

Speculation is a continuing process that will occur in almost any market which is subject to uncertainty or imperfections. Most economists consider that speculation serves a useful purpose in that it can lead to a better allocation of resources over time. This is generally true for speculation in commodities such as wheat, minerals, lumber, and speculation in these markets is rarely criticized by the general public. According to Samuelson and Scott, "The intelligent profit-seeking action of speculators and arbitragers tends to create certain definite equilibrium patterns of price over time and space."[4] When a commodity has different prices at different times (or at the same time in different areas), the opportunity for profit exists providing that the costs of holding it over time for later sale (or of transferring it for immediate sale) can be estimated with reasonable accuracy, and providing that the costs are not so high as to discourage an individual from committing current funds to its purchase.[5]

In commodity markets, speculators operate by taking advantage of spatial and temporal price differences existing between markets for given commodities, by buying at the lower prices and selling at the higher prices, thereby making a profit for themselves--and, at the same time, tending to equalize the prevailing prices. As a rule,

speculators do not buy commodities with the intent of using them in the usual sense; rather they are motivated by the expectation of existing price differentials or future price increases.[6] To the extent that speculators can accurately forecast the future scarcity of a commodity, their action can result in stabilization of foreseeable price fluctuations over a given period of time. By buying commodities in one period for release in a future period, speculators cause (1) a withdrawal of present supply, (2) a temporary increase in present price, (3) an increase in amount stored, (4) an increase in future supply, and, (5) a reduction in future price--the end result being a relative stabilization of price and consumption over time.[7] Thus, in the commodity market at least, speculators perform a socially beneficial function.

The actions of a single speculator on a particular commodity will not significantly affect the market price, unless the market happens to be severely restricted. If this indeed is the case, and the market price is definitely influenced by the decision of one speculator to buy or sell, "... the question of monopoly control becomes more important that that of speculation."[8] On the other hand, whenever there are a large number of speculators in a given market, competition among them will effectively reduce individual gains, and permit none to make excessive profits

over the costs they incur--which include, of course, the wages necessary to keep them in this line of activity.

Thus, although "there is something vaguely unpleasant about the image of the speculator",[9] economists have long recognized the important role speculation has in an efficient price system. However, as MacKay concludes, the life of a speculator is not an easy one:

> Not only does his expectation of profit depend almost entirely on the actions of others, but if he appears to be doing well he will face competition from other speculators who wish to get in on a good thing. There is no certainty that a speculator will make any profit, much less a large one, and the chance he may lose money is always present.[10]

It is worth noting here that, as the term itself implies, excessive speculation is often detrimental to the public interest by causing distortions and inefficiencies in the price mechanism. However, excessive speculation in commodity markets can always be curbed--various means are available to effect this, but the fundamental method of forcing prices down is to simply increase supply in relation to demand.

The underlying question of speculation in land can be more fully understood by examining both the causes of land speculation and the problems which arise from it. Before

attempting this, however, it is appropriate to examine the general attitude toward land as a resource in North America.

NORTH AMERICAN ATTITUDES TOWARD LAND

The prevalent attitude in North America toward land has been tempered by the belief that land as a resource is virtually limitless. This notion, bred during the early settlement days, has been a dominant factor in the development of both Canada and the United States.

In 1796, Albert Gallatin, an American diplomat and one-time Secretary of the Treasury, remarked that, "If the cause of the happiness of this country was examined into, it would be found to arise as much from the great plenty of land in proportion to the inhabitants ... as from the wisdom of their political institutions".[11]

Related to this collective confidence that the supply of land is somehow unlimited, is the general unconcern for the rate at which land is consumed by new development -- an attitude that has been termed "prairie psychology".[12] On top of this, has been the seeming indifference -- until comparatively recently -- toward the general standard of land development. As Yearwood observes, the dominant American attitude concerning land use is one of "... little concern for the rate at which land is used and a belief

that all development is necessarily and inherently good, probably because someone is making money out of it".[13] A British observer once remarked that, "One of the most marked characteristics of American development is its impermanence" [14] and that, despite the rampant growth, "... it is very rare in America to encounter any antipathy to new development. Quite the opposite is usually the case".[15] This attitude seems to be quite justified, because, to most North Americans, unfortunately, "... development is progress, even if the development is substandard, premature, improperly located, and a drain on the public purse".[16]

Closely associated with the attitudes toward "limitless" land resources and incessant development, is the accepted practice of land speculation. According to Delafons, "Speculation in land has been a tradition in America and was in fact a major motivating force in opening up the West.... This speculative bent still colors American attitudes toward the land and is a factor to be reckoned with in attempting to control its use".[17] Promotional literature, inviting investments in land, is widespread. Several years ago the book entitled, How I Turned a Thousand Dollars Into a Million in Real Estate -- In My Spare Time, topped the best seller list for more than eight months. Recently, a major article in Maclean's urged Canadians to

take advantage of the speculative element in land.[18] The article, never once mentioning the effects of widespread land speculation on the general public, enticed readers with the tempting headline, "This small-town barber isn't any smarter than you are. BUT he's a part-time land speculator and soon he'll be worth $400,000. You could do it too". The ensuing story praised speculators as the "...new kind of Canadian mini-tycoon, men of limited resources who are living quite literally off the fat of the land".[19]

The foregoing section has briefly summarized what has been the traditional attitude towards land development in North America -- the recognized, accepted and acclaimed procedure of "get in, get rich, get out", and the frontier, trailblazing mentality, characterized by a striking indifference as to the socio-economic consequences. It will be the purpose of a later chapter to outline reasons why this attitude must change, if, as Yearwood states, the general public is to realize "...whose ox is being gored when speculators reap a windfall. And an ox <u>is</u> being gored; as the various systematic works on speculation document, the total community -- and the taxpayer -- is the loser".[20]

LAND SPECULATION -- THE PRESUMED EFFECTS

The earlier discussion on speculation in general commodity markets pointed out the value to the economy of speculation in those particular markets. What was then stated is generally applicable to any product or resource characterized by having a particularly fluctuating supply. Speculative activity in land resources, however, is a controversial subject to say the least.

Although competition exists between sellers in the land market, in the opinion of many, the results of such competition are not as beneficial as those results that normally accrue from competition in many fields of production. Bryant, for example, states that the overall effect of competition in the land market is "...simply an undesirable distortion of the trend of urban growth".[21] As a city grows "... the directions of its growth are pretty well determined by physical factors, natural or man-made, so that demand is constantly ahead of supply ... normal market adjustments simply do not operate in these circumstances".[22]

Although tradition and free enterprise have long decreed that "... land uses are most efficiently organized if decisions are made by the market ..."[23], there are many who would disagree.

> The "market" ... is not some abstract entity. It is made up of people, some of them unsuspecting, uninformed purchasers, some of them ethical men in the development business, some of them speculators, and some of them, apparently, just crooks. Still, until very recent times, land-use decisions were made by private individuals -- the realtors, land developers, and the bankers, all of whom were interested in personal profit.[24]

In the same vein, The Economist notes that:

> No other market is so distorted, so imperfect, so jerky in its action and hemmed in by the effects -- intended and unintended -- of public regulations. The jerkiness is virtually inevitable. Buildings are long-lived; changes of ownership, whether of freehold or lease, occur at long intervals and sporadically; land effectively on the market at any particular moment is only a scattered fraction of the total.[25]

Consequently, in the words of Fogarty, "... myth and fact become inextricably mixed, and the result, it has been said cynically, is that real estate is perhaps the only market where the successful guesser can rely on one constant -- the ignorance of the rest of the world".[26]

The characteristic fragmentation of land ownership has been accused of preventing the most efficient use of urban land.[27] Here the argument is that inefficiencies in land-use may result from instances where the theoretically highest and best use of a particular are would

necessitate the combination of sites previously used separately, but one or more land-owners refuse to allow his land to be used for such a purpose. This refusal may be attributable to a variety of reasons, the most likely being the desire to take advantage of the so-called "monopolistic position". According to Lean, "There is always a potential monopolistic element in the ownership of land in so far as every plot is unique in its spatial relationships with other plots of land".[28] In urban areas particularly there may be several mutually exclusive demands for the use of a piece of land, and city growth only serves to multiply demands for any given site whether it be on the fringe area or near the central business district.

At the outset it was stated that very little empirical research has been undertaken to investigate the profits derived from land speculation, the effects of speculation on general price levels and the process of changing property values over time. However, several authors have seen fit to make at least tentative observations on the general effects of land speculation.

Frenzied competition for land, particulary on the urban fringe, has resulted in "... unbridled land subdivision as a get-rich-quick scheme ... (leaving) ugly scars on nearly every major city and many of the smaller cities

in the United States".[29] Speculative activity is prevalent in fringe areas because, as Whyte states, "... just beyond today's suburbia there is little planning, and the development is being left almost entirely in the hands of the speculative builder".[30] The speculator and/or developer is naturally attracted as much by the availability of relatively inexpensive land, as by the presence of minimal regulations. He " ... follows the line of least resistance, and in his wake is left a hit-or-miss pattern of development".[31]

Although there is always a great deal of publicity about speculators who have made quick fortunes, "less is said concerning the blighted hopes or investments lost".[32] Even less, as Yearwood observes, is heard concerning the effects of speculation on the public in general; "The community loses through loss of revenue when land is taken from a productive use to be offered for speculative purposes, when scattered subdivisions without the necessary services and facilities must be served, and when foreclosures and defaults become numerous, and when taxes are increased."[33]

By its very nature and method of occurrence speculation in land has been accused of nullifying the planning fuction of communities. Fagin states that because co-ordination of planning involves both <u>space</u> and <u>time</u>, the

effective planning necessary to encourage orderly patterns of development requires simultaneous attention to both.[34] Unfortunately, however, speculation adversely affects both the sequence and the tempo, or rate, of municipal development. The overall effects can best be illustrated if, for purposes of preliminary investigation, speculative activity is considered as having either of the following immediate results: (a) the excessive subdivision of parcels of land, and (b) the complete withholding of entire parcels from development of any kind.

With respect to the former result, Merriam investigated the effects of excessive subdivision in the early 1940's and observed that:

> The spread of a city by unplanned subdividing, motivated only by the individual owner's desire for profit, has proved to be extremely wasteful. In accordance with our traditional tolerance for haphazard methods, the typical subdivider, interested primarily in the development of his own land, has paid little attention to the broader needs and desires of the community. Unused sidewalks, streets, sewer and water mains, fireplugs, street lights, and lonely houses on unkept lots remain as dismal reminders of this unbridled expansion.[35]

He cites figures for the United States that indicate a very large surplus of subdivided lots, with estimates as high as 15,000,000 excess lots.[36] According to Merriam the following figures are illustrative of the general

situation:[37]

Area	Lots Plotted	Lots Not Used	Proportion Not Used
Milwaukee County (Wisconsin)	39,313	37,962	90.34%
Redford Township (Detroit)	27,183	26,004	89.4%
Chicago	1,222,000	554,000	53.66%

Lovelace cites North Vancouver as being an extreme example of excess land subdivision during a period of rapid speculative activity.[38] There are numerous other examples, one of the more spectacular being the rampant speculation and subdivision of the Saanich Peninsula during the early 1900's.[39]

Not only does excessive subdivision prematurely remove lands from more logical or productive uses -- such as farming -- it may also hinder the development of an area when the time is appropriate, due to the complication of real estate transactions arising from diverse patterns of land ownership.[40]

Understandably, social and economic costs associated with excessive, uncontrolled subdivision of land are considerable. Wherever the present and future welfare of the community as a whole as been sacrificed for immediate

individual gain, the results are "... the familiar blighted districts, the wasteful improvement-scarred areas, and the high costs to the community".[41]

Speculative activity that results in the withholding of urban fringe land from development, artificially affects the tempo and sequence of municipal development and in so doing has a direct, adverse effect on the community as a whole. The marked urban decentralization of recent years is sometimes attributed to land speculation. Regardless of whether or not that statement is justifiable, if land within the borders of an urbanizing area "... is held vacant or in less-developed use than current conditions alone might justify, then the boundary of the urban area will tend to be further from the CBD than would otherwise be the case."[42] The resulting sprawl, whether fostered by speculative activity or not, negates and frustrates the very purposes of urban agglomeration -- specialization, interaction, and concentration of people. In a growing community, the following items are most affected:

1. The actual costs of municipal facilities and services -- including the efficient provision of police and fire protection, schools, bus lines, streets and transportation corridors, utilities, etc. The cost of initially providing these services, as well as the cost of maintenance and operation, is closely linked to the actual

sequence in which different areas of a large community are developed. For example, the facilities such as pipes and streets will have to be extended inefficiently over long distances to serve scattered users or will be extended gradually to serve areas built in careful phase with efficient facility growth".[44]

2. The retention of municipal control over the eventual character of development. Consider, as an example, a case where the municipal master plan requires future intensive development served by public sewer and water lines in a particular area which presently happens to be remote from an utility lines. If control over the actual timing of development is affected by speculative activity, the area in question could be the premature subject of a considerable amount of subdivision and low-intensity development served by individual wells, water sources and separate sewage disposal units. The existence of this type of development may make it very difficult at a later stage to convert the area to the more intensive character required by the evolving municipal pattern, even though important community-wide reasons may exist for doing so. In similar fashion, as Fagin notes, "... an important future industrial district may become so cut up by scattered small-scale factories as to preclude its eventual development as a planned, co-ordinated industrial district when the time is ripe".[45]

3. The maintenance of a desirable degree of balance among various uses of land. For instance, it is often essential to the economic stability of municipalities -- especially those which contain large quantities of low-value homes -- that the service costs be offset by tax income from commercial and industrial sources. In such cases, it is critical that new residential construction be timed in proper relation with commercial and industrial expansion. Another type of balance among land-uses involves the somewhat subtle relationship of areas of varied character. For example:

> The village of Hastings-on-Hudson in New York has a policy exercised through the zoning ordinance which regulates the timing of apartment construction in relation to the rate of one-family home building in accordance with a 15 to 85 ratio. Thus, for instance, whenever 85 new one-family dwellings have been built, the village may issue permits enabling 15 dwelling-units in apartment buildings. This regulation is intended to maintain what is locally felt to be a desirable predominance of one-family dwellings in a commuter village, but at the same time to make possible a necessary though smaller supply of rental apartments. The device makes the timing of one element conditional one the timing of another related element.[46]

4. The maintenance of a high quality of community services and facilities. During periods of rapid land development adequate time intervals are required for the assimilation of residential, commercial or industrial

additions to the community. When land is subdivided at a faster rate than municipal facilities and services can be added, "... the resulting overloads on existing capacities cause a decline in the quality of services. Uncontrolled, this deterioration can result in seriously substandard levels of water supply, sewage and waste disposal ...".[47]

This section has detailed some of the typical effects of land speculation on the community. Yearwood concludes that,

> Speculation leads to waste of a valuable resource. There is waste in taking land out of a productive use before it is ready for another; waste is tying up capital for long periods in an unproductive enterprise, with more in taxes, interest, and special assessments; waste in the division of land into lots that are too small, or of poor design, or poorly located; waste in zoning too much for business use; and waste in replatting land which has been prematurely subdivided. There are other wastes too: increased utility costs, increased maintenance costs, and increased overall governmental costs, all of which affect the community adversely.[48]

It is worth noting here that there is "... widespread opposition to any type of control which would hamper the activities of those engaged in the speculative enterprises connected with the conversion of raw acreage into urban lots".[49] Widespread opposition to control of

speculative activity appears to be a common phenomenon and its force is responsible for much of the disorderly growth on the fringes of urban areas. More will be said on the subjects of controlling not only land speculation but private land use, in a later chapter.

THE MARKET FOR UNDEVELOPED URBAN FRINGE LAND

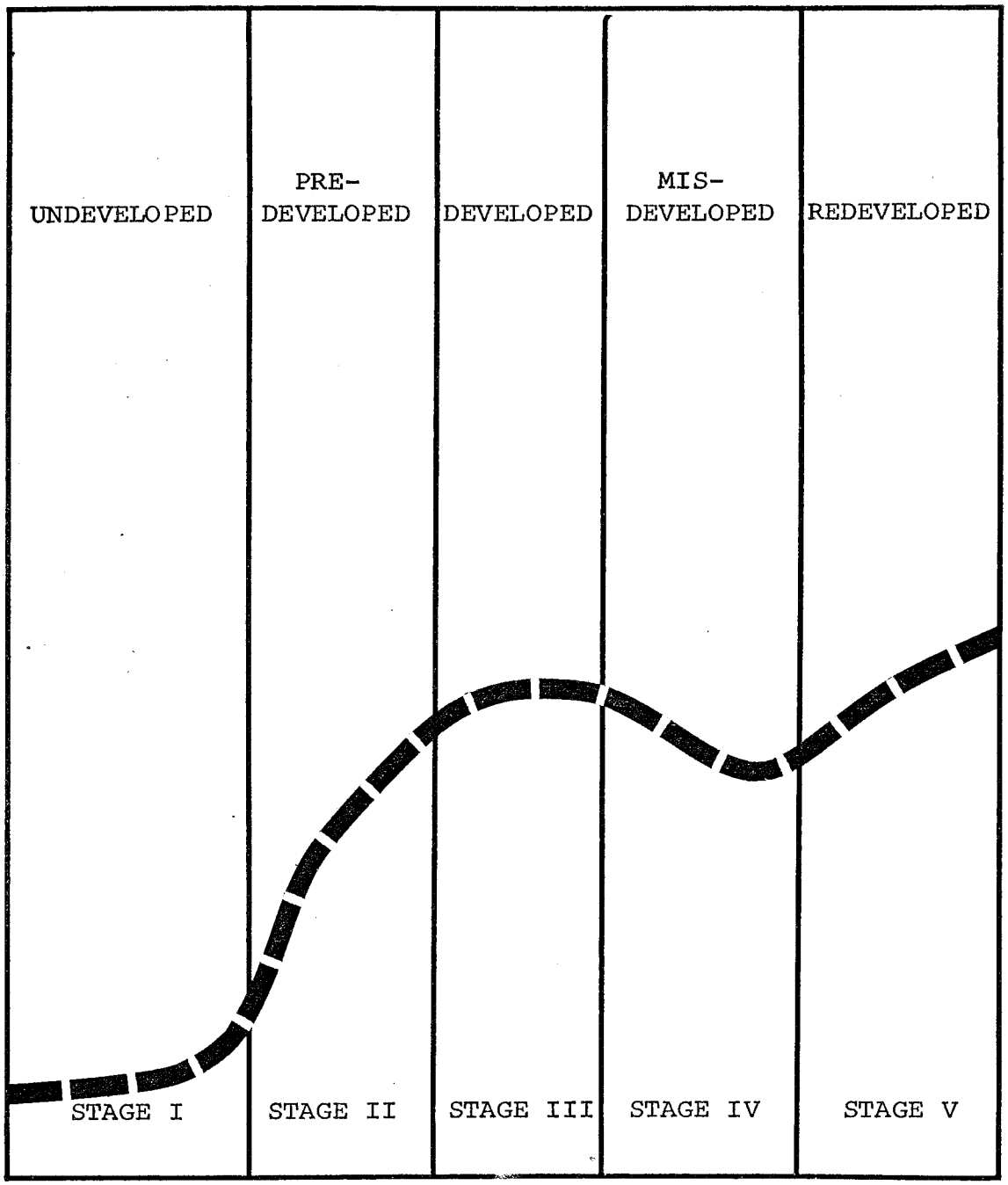
The demand for undeveloped land is essentially a "derived demand": that is, the demand for this particular type of land develops from and depends upon the demand for satisfying what, in this case, happens to be a basic human requirement -- shelter. According to Hamilton,

> " ... the return from ownership of undeveloped land is not primarily income but rather capital appreciation. The value of undeveloped land depends almost entirely upon the final use and the timing of development, any income provided prior to development is usually insignificant in relation to this capital appreciation.[50]

In their article, "Land as a Growth Investment", Ricks and Weston have identified five stages in life cycle of land within any given urban area that undergoes development.[51] These land-use stages are (1) agricultural, (2) pre-development, (3) original development, (4) underdevelopment, and (5) redevelopment. In the context of this

Figure I

LIFE CYCLE OF LAND VALUES



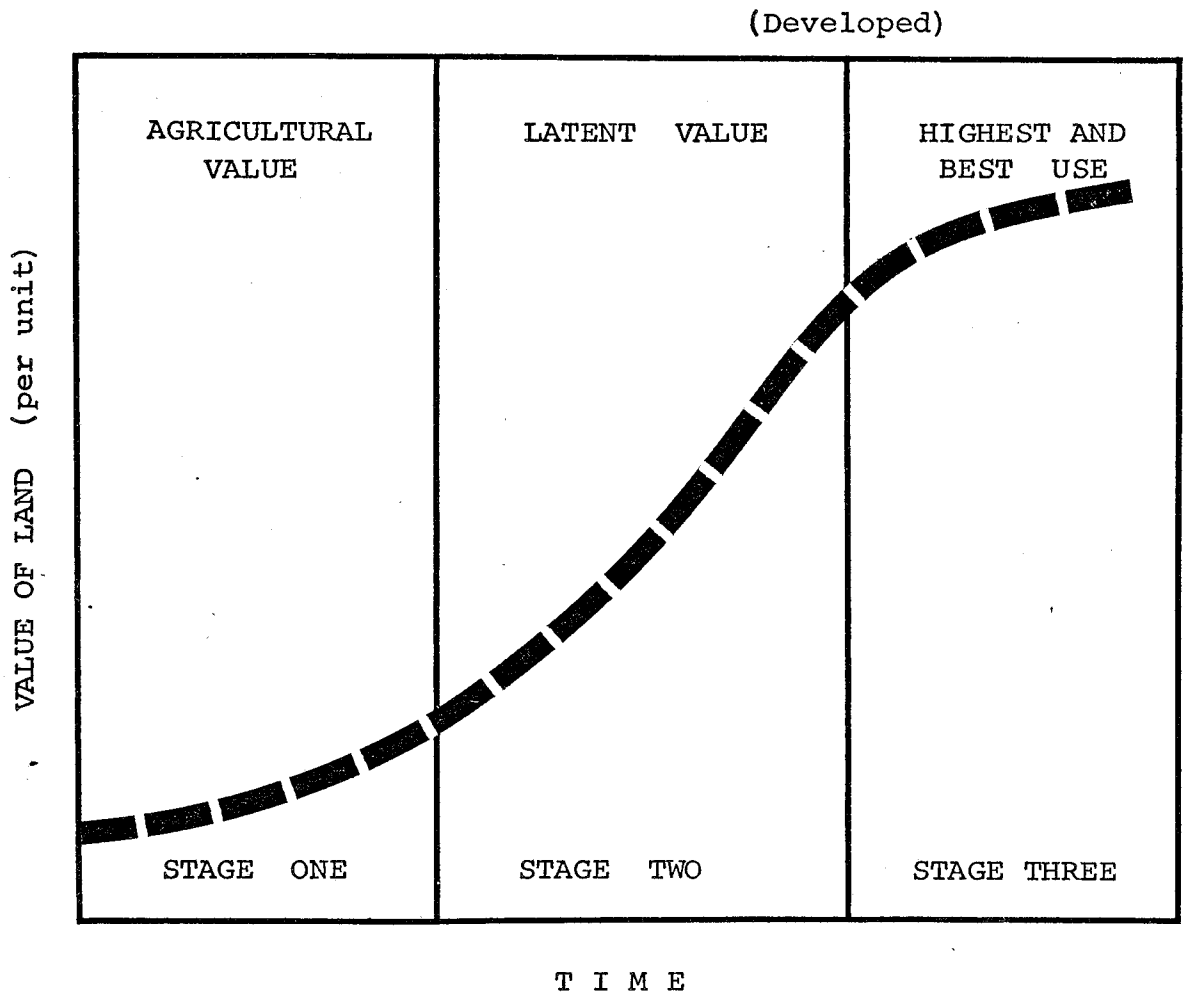
Source: R.B. Ricks and J.F. Weston, "Land As a Growth Investment", Financial Analysists Journal, Vol. 22, July/August 1966, p. 70.

study, however, only the first three stages are of significance. These particular stages, which Hamilton has denoted by the prime determinants of value rather than actual land use, are (1) agricultural value, (2) potential development value, and (3) value at the time of development.[52] The three stages are illustrated in Figure II . Although this study is primarily concerned with land that falls within Stage Two, it is important to examine both Stages One and Three for they serve as the constraints or boundaries for Stage Two.

The value of the undeveloped, agricultural land in Stage One, before other uses are considered, is simply the capitalized value of the income obtainable from agricultural uses. During this stage, changes in the price of land are influenced by any changes in productivity and/or price changes for the final agricultural outputs. Assuming that farm prices are controlled to a significant degree -- through marketing boards, for example -- land values would tend to increase gradually over time as Figure II illustrates. Land would remain in Stage One of the development cycle as long as the market value -- based on agricultural use -- equalled or exceeded the maximum price payable for some other use. Further to this point, Hamilton notes:

Figure II

STAGES OF LAND VALUES



Source: Stanley W. Hamilton, "Price Movements in Undeveloped Land Facing Urbanization: A Micro Study", Unpublished PhD. Thesis in Business Administration, University of California, Berkley, p. 46.

> Even with potential urban use in the foreseeable future, the present worth of the land for development is less than the agricultural value. Observe that it is the value generating use rather than the actual land use which distinguishes Stages One and Two. A property may remain in agricultural use well beyond the point at which farming ceases to be profitable.[53]

Land in the other extreme, Stage Three, is characterized by actual development, and its value in the short run is derived from the capitalized value of the land's contribution to income production as an urban property. There are two items to appreciate here. In the first place, since development of land may occur over some extended period of time, the actual boundary of Stage Three is subject to interpretation. For most purposes, however, it is sufficient to simply classify property as being in Stage Three when income-producing improvements are provided on the site. Secondly, the value of the land itself in Stage Three is difficult to determine, since the total income subject to capitalization includes a certain amount derived from the capital improvement.[54] In the context of this study, however, the important consideration is that land be properly classified as between Stages Two and Three. Thus, "Unlike Stages One and Two where the boundary is determined by value generating considerations, Stages Two and Three are delineated by the presence

of on-site income producing improvements".[55]

The interim period, Stage Two, is illustrative of price rising above the current agricultural use value, in expectation of the future higher urban-use value. Consequently, the actual value of land in this stage is highly uncertain, depending on its use at some future period in time.[56] The characteristics of the market in Stage Two, as well as the process of value determination within this market, will be examined in more detail in the next section.

For the time being, the following simply equations serve to summarize the three stages of land values and the conditions defining the boundaries:[57]

$$\text{Stage One:} \quad AMV_{it} \geq PMV_{it}$$

$$\text{Stage Two:} \quad AMV_{it} \geq PMV_{it} \geq (DMV_i - CD)_t$$

$$\text{Stage Three:} \quad (DMV_i - CD) > PMV_{it}$$

where: AMV_{it} = market value of unit i of land in period t based solely on agricultural use;

PMV_{it} = market value of unit i of land in period t based on potential development;

DMV_i = market value of the developed unit i of land in period t, assuming development

occurs in period t.

CD = cost of development in period t.

LAND SPECULATION RECONSIDERED

The aforementioned opinions on land speculation and its effects, although widespread, appear to be based on at least three misconceptions:

1. the assumption of a fixed supply of land and a disregard as to the influence of demand in the determination of market prices;

2. the confusions of speculators with those land owners who may have some degree of monopoly control over portions of the supply; and,

3. the belief that speculation, of and by itself, is the cause of excessive inferior subdivision and the resulting urban sprawl.

The result of the first misconception is an underestimation of the degree of competitiveness particularly in the urban land market. Land is not as unique a "commodity" as many would believe. It is true that aside from relatively insignificant amounts reclaimed from aquatic areas or "created" through the use of air rights for building purposes, the supply of land is fixed in physical

terms. However, the economic supply is considerably less inelastic. If the supply of land was perfectly inelastic, the sole response to an increase in demand would be an increase in price. Such is obviously not the case, particularly with land on the urban fringe, as MacKay observes:

> ... an increase in the demand for urban land not only results in price increases but also in an expansion in the area of land used for urban purposes as well as an increase in the intensity with which existing urban land is used. The difference in elasticity between the physical and the economic supply of land is determined by the degree to which changes in demand are met by changes in area and intensity of use. The economic supply of land is still more inelastic to changes in price than the supply of many other products, but it is not nearly so inelastic as the physical supply.[58]

It has even been concluded that "... for any individual entrepreneur, the supply of land is only limited by the price he is willing and able to pay".[59] The important point is that the actual degree of elasticity, combined with the widespread ownership of land, produces conditions of supply that are considerably more competitive than many would suggest.

Equally significant is the inadequate attention to the influence of demand on the price of land. Reffering back to the three stages of land values, land in Stage

Two is essentially subject to three sets of buyers.[60] The first set -- those buying for agricultural use -- establish the minimum price. The second set includes developers who purchase undeveloped land only if they have strong expectations of being able to develop the property and later resell at a profit. However, as Hamilton states:

> Due to the nature of the market, the developer acts as a price-taker for both the land and the developed property. As such, the developer cannot influence either the price of land or the price of the completed property. The price of land is set in an imperfect but quasi-competitive market. The price of developed property is derived from the price of the standing stock of developed property.[61]

This is closely related to the second popular misconception -- that of speculators exercising monopolist powers. The ownership of land, both rural and urban, is widely dispersed in North America. If it were not so, and land ownership were concentrated among relatively few persons as is the case in some South American countries, the result would be a definite monopolistic market and generally inefficient land allocation. To the extent that the location of land is fixed, as well as the fact that no one unit of space is identical with any other in terms of physical characteristics, the owner of a particular site can exercise considerable discretion as to his selling

price. The price of a unit of land may reflect monopolistic conditions only in relatively few instances, and for this to occur either of two conditions must exist: (a) there is no alternative site for a particular use; (b) there is no alternative use for the site.

> In the first instance, the landowner is a monopolist who can set a price on his land which is not influenced by the pricing policies of other landowners. In the second, the potential user is a monopsonist who can offer a price which is not influenced by the pricing policies of other potential users. If both conditions hold, there is a bilateral monopoly and the price will be settled by bargaining. The price of land is apt to be too high in the first case, too low in the second, and is indeterminate in the third.[62]

In the vast majority of cases, powers of monopoly control do not exist to a significant degree in the land market. There are two points to consider here. In the first place, although land is bound by its physical location, "... in the economic sense land is mobile to the extent that it can move from one use to another depending upon the price that each use is willing to pay for it. Thus, it can move from where it is plentiful to where it is scarce, in economic terms".[63] The second point concerns the degree of land substitutability -- not of the resource itself, but of various units or sites of land. It is generally accepted that no individual owns so much land

that there are not alternative sites, owned by others, available for development, and which represent reasonable substitutes.

The third set of purchasers operating in Stage Two are the investors or land speculators, whose object is to withhold land from development while awaiting anticipated price increases. The usual method is to purchase land in fringe areas, at prices that reflect the existing value in some agricultural use, and hold the land until it can be sold for a higher price -- in line with the potential value that could be obtained in the land's most remunerative urban use. Contrary to popular belief, the speculator makes no personal effort to increase the value of his land; her merely keeps it off the market until such time as he feels he can receive a profit.[64] The end result is that the price of a unit of urban fringe land in the short-term may reflect its inflated value, to the extent that it includes the speculator's profit as well as the acquisition costs. Thus, in the early years of urbanization at least the effects of speculative activity are reflected in higher land prices than would normally be justified in Stage One. Due to the relatively inelastic supply of this type of land, the immediate reaction to an increase in demand would be an increase in price, rather than an increase in quantity supplied as well as an increase in price. This initial reaction would not persist

because, even within the short-run period, the increase in demand would soon cause an expansion in the area of fringe land available for urban development.

The third apparent misconception concerning land speculation -- the belief that speculation leads to excessive, inferior subdivision and urban sprawl -- is based on a false assumption. Although examples of urban sprawl are often linked to the activities of speculators, this does not indicate that speculative activity itself is bad. Rather, poor subdivision conditions imply inadequate public controls on land use. The whole subject of private land ownership and public controls is key in any discussion on speculation, and will be examined closely in the next chapter.

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54. In the long-run, the value of land in Stage Three may, of course, be considered higher, as there is time for the property to become redeveloped at a higher use.

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CHAPTER III

LAND USE CONTROL

INTRODUCTION

The entire subject of land speculation and the determination of land values must ultimately be considered on a macro scale and from an objective stance. In essence, it is a question of land-use control. For as Bryant states, if it be accepted "... that the operation of the normal market processes is the proper determinant of the proper use of land, and that individual proprietors have unrestricted right to develop their land in accordance with their personal calculation of profit, then any attempt to curb speculation, and control prices of land becomes next to impossible."[1] This chapter examines the concept of land-use control under the following headings:

1. The public interest in land resources;
2. North American system of land tenure;
3. The case for public intervention;
4. Methods of controlling land-use.

With respect to this last category, the options available for land-use control range from a system of "laissez-faire" at one extreme, to the public ownership of land at the other extreme. Between these two systems lies a range of controls allowing for various degrees of public intervention, and designed to improve, not replace, the private sector. The following items will be examined in this

connection; legal controls (zoning and subdivision control), fiscal measures (taxation), and the public ownership of land, including the concept of "land banking".

THE PUBLIC INTEREST IN LAND RESOURCES

> It is the clear duty of Government, which is the trustee for unborn generations as well as for its present citizens, to watch over, and if need be, by legislative enactment, to defend the exhaustible natural resources from rash and reckless exploitation.
>
> - A.C. Pigou

For any given natural resource conditions of scarcity necessitate social controls, in the attempt to ensure optimal development and/or allocation. All human communities, regardless of political affiliation, assert a public interest in land -- but in varying degrees, on different theoretical grounds, and by different methods.[2] Moreover, the governments of most countries today appear to be performing a considerably more active role than was traditionally the case -- both as <u>regulators</u> of the private urban land market processes, and as <u>direct participants</u> in this process.

The condition of state ownership represents the method of <u>complete</u> assertion and control, while state regu-

lations governing transfers of land among owners reflects a situation of minimum control. Between these two extremes are "... state claims on revenue from, or value of, land; state requirements for land donation under certain circumstances; state regulations governing the private use of land (zoning); the right of the state to expropriate; and state regulations governing land registration and land subdivision."[3]

The complete ownership of land vested in the state and the ownership of land entirely by private individuals both result in serious drawbacks. Inherent in the former method -- as practices in the U.S.S.R., is the right of the state to impose any revenue claim, and to not only direct the land to any particular use, but also to declare exactly who shall make use of it. Obviously, under such circumstances, whatever problems that might accrue from land speculation disappear and annual land rentals flow directly to the public treasury. However, the " ... desirable features of outright public ownership are ... accompanied by serious mis-allocation of land and greatly reduced freedom of choice of individuals".[4] At the other extreme, complete private ownership of land would imply the total absence of government regulation, taxation, or control of land, and naturally preclude publicly-owned sites. Under such a system, both the efficiency of the land market and the individual's freedom of choice is

directly affected by the actual degree of dispersal of land ownership -- that is, whether it is widely dispersed or concentrated in a few hands. Rawson notes that, "Absolute private ownership of land concentrated in a few hands means freedom of choice only for those few; it means a highly monopolistic market and inefficient land allocation .... (and) results in the same serious deficiencies as complete state ownership, with the added drawback that annual land rentals flow into private hands instead of into the public treasury".[5]

The land systems operating in North America lie between these two extremes -- private land ownership is dispersed to a large degree, and the public interest in land is asserted in many ways.

An important issue in giving expression to public interest in the control of land-use and tenure arises from the necessity for continual review of the goals of public interest.[6] These goals change over time. Consequently, the public's interest is in regular need of reinterpretation and reappraisal. In light of this, one of the most important questions confronting the government sector is how to assert the public interest in the area of natural resources more effectively than at present, and, at the same time, avoid contributing to the general erosion of freedom for the individual.[7] Although this problem

is considered in greater detail later in the chapter, it would be worthwhile in the interim to reflect on the following statement made by the Dean of the University of Illinois College of Law:

> We are experiencing a rather rapid shift in the balance from the early preponderance of private volition to an increasing emphasis on social interests. If properly approached, this shift can serve both the interests of private property and public interest since only where the public interest looms large can the private interest really be meaningful.[8]

NORTH AMERICAN SYSTEM OF LAND TENURE

The underlying theme of this section can be stated at the outset. In fact, the opinions expressed on the present system of land tenure are analagous to Samuelson's views on economic systems. He has observed that:

> Unyielding conservatism defeats its own purpose.... Brittle economic systems without the flexibility to accommodate themselves in an evolutionary manner to accumulating tensions and social changes - however strong such systems may appear in the short run - are the greatest peril of extinction, as science and technology are constantly changing the natural lines of economic life. If the system is to continue to function well, social institutions and beliefs must be capable of adjusting themselves to these changes. And without a sense of historical perspective, neither radicals nor conservatives nor middle-of-the-roaders can effectively advance their own true long-run interests.[9]

The concept of private freehold ownership of land has been termed "... an interesting social phenomenon, peculiar to certain societies at certain stages of their development. Like all other social institutions, it evolves and changes in response to changing needs".[10] The law of real property attained its present status of applicability as a result of a continual process of revising its concepts. And in order to better understand the present system of land ownership, it is necessary to gain some historical perspective.

When William the Conqueror imposed the feudal system -- based on land tenure and personal services -- power and property were one and the same. The system was appropriate considering the socio-economic conditions in England at that time, and lasted until the 14th or 15th Centuries. Gradually, it was realized that public power and private land ownership could be separated, and that it would be in the public interest to do so.[11] As a result, public office -- which respresented power -- was split from the ownership of the feudal manors. At subsequent periods of English history, to meet changing economic and social conditions, the concept of ownership was further divided. Ownership and possession were developed into two distinct concepts; trust management ownership (also known as legal ownership) and beneficial ownership (known as equitable ownership) were also separated. A corporate form of

ownership was developed in the nineteenth century, which by according owners limited liability, provided a valuable mechanism for the exploitation of resources. The present Canadian system of land ownership -- based on the concept of land as property, to be disposed of at will, and without attached obligations to society -- is the outcome of the evolutionary process following the break-up of English feudal system.[12]

Recently, several writers have stressed the need to develop concepts of urban land ownership more in keeping with the character of complex modern society. Dukeminier states that:

> Our present concept of ownership of urban land includes the right of the owner to determine to what uses land will be put and when, subject to quantitative limitations imposed by public authorities. Permitting the owner to determine use may have been sound policy in Old England, when the manor stayed in the family for generations and the company built houses for its workmen. It may even have been sound policy in pretechnological America. But this policy does not take into account important factors in modern civilization such as increasing population, automobility and urban sprawl, the speed of technological change.[13]

Bryant concurs, observing that:

> The old system of individual freeholds, established by the early settlers, is still solidly entrenched and embedded in the social fabric, but it looks less and less adequate as a satisfactory basis for a modern society. On the one hand, complex and difficult issues surrounding the public control of land use have an urgency unknown to our ancestors. On the other hand, the ordinary operations of the market produce anomalous results, especially on the fringes of cities where pressure for development is great, and each piece of land has several, and often conflicting demands for its use.[14]

As Dukeminier concludes, the principle of permitting the urban landowner to determine use infers that urban land-use in a society dedicated to mobility is determined by "considerations of the moment":

> The owner for the time being seldom views his relationship to land as a permanent one. Land is viewed as a temporary haven for a business enterprise (which may need to move to another location at any moment and is writing off its capital investment at a rapid rate). New land uses, but not rehabilitation of the old, can be easily financed; the banker is interested almost exclusively in new developments. The land developer, a temporary owner, gets in and gets out quickly. Residents move and move and move. Even if they live in a house many years, at their death the continuity of ownership is lost. Children no longer move into their parents' houses... "Home", in the sense of a permanent attachment to a place, hardly exists in a mobile society. Yet we persist in thinking of ownership of urban land as if it were rural land in an agrarian society.[15]

THE CASE FOR PUBLIC INTERVENTION

> It is as idle to expect a well-planned town to result from the independent activities of isolated speculators as it would be to expect a satisfactory picture to result if each separate square inch of canvas were painted by an individual artist. No "invisible hand" can be relied on to produce a good arrangement of the whole from a combination of separate treatment of the parts.
>
> - A.C. Pigou

In this section, the case for public intervention in land resources will be examined under the two following sub-headings: (a) "market behavior", and (b) "interdependency and externalities".

Market Behavior

Generally speaking, classical economists favored economic systems based on consumer preference and market operations. Inherent in this bias was the assumption that "... if each person pursued his own self-interest, the 'unseen hand' of the market would automatically define and achieve the public interest".[16] However, a completely 'laissez-faire' approach to either the production and distribution of goods and services or the distribution of income has long been regarded as unsatisfactory.[17] As an

urban analyst remarked over 40 years ago,

> Laissez-faire policy can properly be charged with a large part of the enormous toll which congestion takes daily from business and industry, the disproportioning of urban areas among residential, commercial and manufacturing uses, the inadequacy of parks and playgrounds, the losses resulting from excessive shifting of districts from placing incompatible uses next to one another, the unwise speculation in urban sites which costs the families of small means millions of dollars annually, and the absence of amenities from the greater part of the residential section of cities - all features of urban conditions of the present.[18]

Intervention by the public sector is not an unusual occurrence for purposes of improving markets which are imperfect, establishing limits on the exercise of monopoly positions, modifying the distribution of wealth and income and for several other purposes. However, social interventions in those markets which organize urban land uses are characteristically more intense than in many other markets,[19] and it is important to understand the rationale for this phenomenon.

One basis for intervention in this area is the serious imperfections of urban land markets in some respects and circumstances. Foremost among these imperfections are the following:[20]

1. The special and unique characteristics of each parcel of real estate makes it difficult to describe, grade, and compare. The lack of a sufficient number of transactions relating to properties which are even generally similar hampers the establishment of a market price.

2. Accurate information on sales prices and terms is hard to discover, and there is no central source of timely and complete information which can serve as a satisfactory guide to traders.

3. The long period required for planning and building new structures delays the response to pressures of demand.

4. The long useful life of buildings means that supply is not reduced substantially when demand falls off and new construction stops.

5. Lack of experience, understanding, and awareness of market trends on the part of the majority of the buyers and sellers of real property delays action in response to market trends.

By comparison with markets for almost all other commodities, "... the urban land market is unique in the number and power of the limitations on the free interplay of supply and demand".[21]

The self-regulating reactions of the urban land market are so sluggish and imperfect that, as Ratcliff notes, "... the market is in a constant state of imbalance"[22] when a scarcity of a particular land-use appears, it typically takes a relatively long period of time to substantially increase the supply -- but, once a process of increasing the supply is initiated, it appears to progress "... more or less according to its own dynamic".[23] The result is often predictable: increases in supply may continue for some time even after the original scarcity has been satiated, generating an excess supply that is comparatively difficult to absorb. Land prices naturally fluctuate synchronously with the relative conditions of supply. The frequent repetition of this peculiar trait has produced the relatively great instability in rates of urban land development and the even greater instability in the prices of urban land:

> The last century and a half on this continent provides a story of real estate booms and collapses over and over again. These instabilities have their origins in the general forces which produce long cycles in economic development. However these forces have had a peculiarly severe impact on the markets in urban land and structures. Ease of entry, imperfections of knowledge, uncertainty about the state of the market, a considerable gestation period between the initiation and the realization of efforts to increase the supply, the durability of the goods and the short-run irreversibility of changes

> in supply - all of these appear to play some role in generating the instabilities or in producing unusually serious instabilities in land development when they are generated by broad economic changes.[24]

Another basis for public intervention at the local level in the urban land market concerns the provision and co-ordination of "public goods". In the context of urban land development, public goods refer to the provision of services, utilities, and common facilities that the private sector might either not provide or co-ordinate in the public interest.

Interdependency and Externalities

One of the most significant characteristics or urban land is the interdependence of one land use on another. It is this feature that by itself forms the fundamental basis of governmental intervention in the market processes that organize urban land-use.

The private use of real estate frequently produces "spillover effects", which are the unintended, but important -- and often harmful -- consequences of private action on the community in part or as a whole. These effects, which can be in the form of benefits or inconveniences, are usually external to the private user, and warrant closer investigation as they apply to land-use and development.

The development of land resources has been possible because man has been willing and able to define certain human rights -- including rights in land -- and clothe them with the sanctions of law. As Hannah and Krausz state, "We may disagree about the nature and allocation of these rights, but we will all agree that land resources could not be developed if there were no rights and no sanctioning authority".[25] The present legal framework attempts to maintain both the rights of private property and private volition, whie, at the same time, provide for the public interest. With such a system, conflict is inevitable.

According to Wehrwein, land problems appear in their most acute form on three fringes or transition zones: (a) the area between arable farmland and grazing; (b) the zone between farms and forests; and (c) the suburban area lying between the built-up city and farms.[26] It is in this last zone -- the rural-urban fringe -- that the potential for problems or conflict of interest or use is the greatest.

As mentioned, it is generally accepted that the system of "mixed" capitalism rests on two fundamental principles: (a) private property, and (b) freedom of contract. Society grants to the owner of property the "right" to act in given ways and society protects the owner in that right.

With few exceptions, society at large does not interfere in a private individual's use of his property -- provided that his of it does not adversely affect other persons. Inherent in the construct of property rights is the particular right and/or ability through the use of property to benefit oneself ("internality"), and/or to harm or benefit others ("externality").[27]

In land resource development decision in general, and in urban land developments specifically, divergencies between social and private costs and benefits are not uncommon -- they represent the possible externalities or "spillover" effects of private decisions upon other segments of society. It is important to consider some of the ways that society may be affected -- both adversely and beneficially -- by private development decisions. Take, for example, the case of a developer constructing a project in an isolated rural area; one way in which this might impinge on others concerns the costs of installing municipal services and facilities. If the developer is charged with the complete cost of this installation, there is nothing wrong. However, if for some reason he is charged less than the full installation cost, then, by originally making the decision of where to construct his project, he is deciding that some costs are to be incurred which he himself is not going to bear. Indeed, it is

conceivable that if he was forced to bear the whole, the marginal cost might have caused him to relocate his development elsewhere with lower costs for services and utilities. This example illustrates the fact that where a decision as to land use imposes costs on other people, which are not reimbursed, the decision taken may be antisocial, so that there is a case for interference by public agencies in the private sector.

The foregoing example was illustrative of a pecuniary spillover effect, but the case for public interference also applies where the cost imposed on society is not readily quantifiable in monetary terms. If a firm operates a pulp mill, the resulting smell and pollution is part of the social cost of producing wood-pulp but not a private cost to the manufacturer. The original decision of where to locate production was based primarily on the relative private costs -- that is, the relative cost of different locations. But from society's point of view it is desirable that the smell and pollution should also be considered; thus, there is a case for public interference.

In these two examples, then, there is a case for interference where the social cost of devoting a property to a particular use exceeds the private cost -- that is, the cost incurred by the developer himself.

However, the same type of reasoning applies where the social benefit from a particular land use diverges from the benefit to the user. For example, the benefit to a developer of demolishing a series of vacant, condemned houses and erecting an architecturally pleasing and functional apartment block is measured by the net income he expects to receive from the project. The social benefit includes not only this, but also the resulting improvement to the neighbourhood. It is conceivable that the private benefit is too small to make the development privately profitable, yet the total benefit is sufficient to make it desirable. Thus, in this example, social benefit exceeds private benefit and there is a case for public interference -- this time to encourage the development.

The general principle can now be stated:[28] where social cost exceeds private cost, private interests will sometimes do what is not in the social interest and there is a case for restrictive interference. Where social benefit exceeds private benefit, private interests will sometimes not develop and thus fail to do what is in the social interest. Here there is a case for interference to encourage development. In other words, there is a case for controlling development when the developer either does not bear all the costs of the development or does not receive all the benefit.

It might be argued that this approach, in terms of the divergence between private and social costs and benefits, is inadequate because it does not consider the need to allocate land between competing uses. Such is not the case, however. Land is allocated by the decisions of owners, and these will be the correct decisions where (a) private and social costs are equal, and (b) private and social benefits are equal in all the alternative development schemes which they consider.[29] There is need to interfere only when these conditions are not fulfilled.

In conclusion, the case for public interference in land resource development can be summarized by the following two "equations":[30]

1. Public right to control use of private land is equivalent to private right to create problems affecting the public interest.

2. The degree of public interest -- and hence, the amount of justifiable public control of private affairs -- is proportional to the density and interdependence of population in the social units involved.

Man if free and independent only to the extent that he is alone. As he becomes increasingly associated with other men, freedom and independence diminish, while restriction and interdependence increase. Friedman concludes that:

> The need for government in these respects arises because absolute freedom is impossible. However attractive anarchy may be as a philosophy, it is not feasible in a world of imperfect men. Men's freedoms can conflict, and when they do, one man's freedom must be limited to preserve another's - as a Supreme Court Justice once put it, "My freedom to move my fist must be limited by the proximity of your chin. 31

METHODS OF CONTROLLING LAND USE

Legal Controls

Zoning

In essence, zoning is a means of insuring that the land uses of a community are properly situated in relation to one another, providing adequate space for each possible type of development. It is probably the single most commonly used legal device available for regulating private development. In theory, zoning encourages the most appropriate use of land resources -- its broad objectives being the allocation of land among the most urgent uses, consistent with some type of master plan.

Zoning is a product of the Twenties, which at first glance appears somewhat unusual, for this particular period has been termed "... the apex of free enterprise thought in this country".[32]

However, it is important to understand that the principles of zoning were accepted by the private sector not because the general public was in favor of government regulation and desired more of the same, but rather because individual property owners wanted to be protected from each other.[33] The first comprehensive zoning plan was adopted by the city of New York in 1916, for the purpose of controlling the use and location of buildings throughout the city. The extent to which the concept of zoning was accepted following New York's lead, is amply demonstrated by the fact that in 1919 twenty cities in the United States adopted zoning ordinances, but within ten years, the figure had risen to 973.[34]

The zoning process involves the division of a municipality into districts, and the subsequent regulation within those districts of (a) the height and bulk of buildings and other structures; (b) the area of a lot which may be occupied and the size of required open spaces; (c) the density of population; and (d) the use of buildings and land for residential, commercial, industrial or other purposes. Zoning ordinances are usually characterized by their "negative" attitude for they operate by <u>prohibiting</u> those types of land uses that are incompatible with other uses. Of major concern to the individual citizen, though, is the affect of zoning on the stabilization and preser-

vation of property values. Through the act of separating economically unrelated land-uses, zoning tends to preserve both the landowner's investment and the taxable value of the property for municipal assessment purposes.

Although the process of segregating land uses may preserve site utility, it does not follow that the main objective of zoning should be the maintenance or creation of property values. On this particular point, Rawlson comments that:

> Value is not automatically created or enhanced by zoning. As a matter of record, the opposite is quite often the case. In many cities land zoned for business far exceeds the demand for business sites; and often such land is not in the path of business growth. Also, there are many instances where land is improved with an economically profitable use which is not in conformity with existing zoning.[35]

It has been argued further that not only is the preservation of property values as such not a proper function of zoning, it could be achieved more appropriately through covenants or similar devices.[36]

Ordinarily, zoning is only indirectly concerned with achieving aesthetic ends, although there appears to be an increasing tendency to include within zoning ordinances provisions which are solidly based on concepts of "general

welfare". This trend has been supported on numerous occasions by legal proclamations, similar to the following statement issued by a U.S. Superior Court:

> ... in order to be valid, zoning restrictions and limitations must have a tendency to promote the general welfare by prohibiting in particular areas, uses which would be detrimental to the full enjoyment of the established use for the property in that area. The real object, however, of promoting the general welfare by zoning ordinances is to protect the private use and enjoyment of property and to promote the welfare of the individual property owner. In other words, promoting the general welfare is a means of protecting private property.[37]

Support by the courts for some type of aesthetic control does not infer the specific acceptance of aesthetics as a sound basis for exercise of police power, but rather a general liberalization in defining the concept of "the public welfare". Goodman cites the classic case in this respect -- the following opinion by Justice William Douglas of the U.S. Superior Court:

> ... the concept of the public welfare is broad and inclusive.... The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled....[38]

The significance of the discussion in the previous paragraph is not the fact that aesthetics are within the realm of police power protection, but the rather obvious trend that is developing, of which aesthetics' control is only a small element. The trend, of course, is to increased public controls for, "... as history demonstrates, sooner or later, in one way or another, anything is subject to regulation if public interest demands it".[39] With respect to the control of aesthetics, it can certainly be expected to increase in the future -- as the direct result of the steadily mounting concern for protection of the environment as a whole.

In conclusion, because land-use controls are required to prevent incompatible uses from causing costs or inconveniences to society, the economic justification of zoning is based on the resource reallocation function of government.[40] Further to this point, Netzer concludes that,

> A yes-or-no control system like zoning can be justified only if it is believed that the forecasts provide for so nearly an optimal pattern of land use that they must be adhered to rigidly, and if it is believed that community interests will be in conflict frequently. Otherwise, a system of controls that allowed more flexibility in land-use decision-making would clearly be preferable.[41]

Subdivision Control

> In the entire process of city growth, there is no step more critical than the original subdivision of raw land .... Subdividers ... are city builders, builders of a structure that lives down through the years as a boon or a burden for the men and women and children who must live out their lives within an environment over which they had no original control.[42]

A relatively recent form of government land-use regulation is that controlling subdivision development. While it is particularly applicable on the rapidly developing urban fringe, its purpose is to protect landowners from economic losses, and the general public from social costs, accruing from inferior land developments. It is an instrument similar to zoning, but "... one that is more important than zoning in rapidly ... (urbanizing) areas because it can be utilized to set the pattern of development."[43]

Local government control over subdivision activity appeared only after the concept of zoning was fully accepted, and it was not until the 1930's that it became the rule rather than the exception. As Goodman and Kaufman state, many statutes and ordinances were only

> ... adopted as a reaction to the damage done to the fiscal integrity of communities by excessive and premature subdivision activity. Developers in the late 1920's, who anticipated quick and easy profits, bought land on the outskirts of urban areas to build homes for sale. Utilities, streets, curbs, gutters, and other public improvements servicing the proposed tracts were provided by the localities. In turn, these communities expected to recoup their initial expenses through expected tax returns from property development. The building boom, however, petered out, leaving stretches of land, semi-improved, with useless streets and weed-choked utilities.[44]

As a direct result of this situation, a series of complications arose -- properties became tax delinquent, mortgaged lands were foreclosed, titles to lots often became confused.[45] Municipal bankruptcy was not an uncommon consequence, as cities were forced to pay off on improvement bonds for which they had little hope of ever being reimbursed. The subsequent search for better measures of protection for communities led to the introduction of subdivision ordinances.

Today, subdivision control forms a vital ingredient of community and regional planning programs. Without it, planning would be a futile process. According to Goodman and Kaufman, two essential functions are performed by subdivision control that are indispensible to the planning process.[46] Initially, communities are able to regulate

aspects of the design and layout of private lands in accordance with what would otherwise have been an ineffectual master plan. Secondly, communities possess a powerful regulatory instrument with which to actually shape the character of new growth -- especially in urban fringe areas, where comprehensive planning has its greatest potential.

In conclusion, as Delafons observes, "... almost everyone (except the land speculator) stands to benefit from the introduction of zoning and subdivision control".[47]

Fiscal Measures

The general case for property taxation is a method for controlling land-use and urban growth has been widely discussed.[48] However, there has been relatively little practical application of the few innovative proposals that have been made in this area. Even though policies of assessment and taxation have the potential to exact the strongest and most pervading influence on the quality of urban development, "... at present they are in no way directed to the achievement of sound communities".[49] Rawlson's argument in this connection is as follows:

> The network of public land uses and utilities provides a physical skeleton within which private persons use, or do

> not use, the land in a community. Municipal plans, buttressed by zoning and other regulations, issue a series of negative commands: "thou shalt not place a single-family dwelling in this area", "thou shalt not build higher than eight storeys" and so on. But the positive decisions as to what shall be built, and where, and when - the decisions that put flesh on the skeleton - are made by the thousands of individual land owners. Thus it is largely true that, under our system, it is not town planners and policy makers who decide land use, but individual land owners. The reactions of these men and institutions to changing economic and social conditions are crucial. Herein lies the strength of the claim that taxation has a powerful effect on urban growth.[50]

In spite of its tremendous potential for impact on land-use decisions, the power of taxation is probably the least understood of all government forms of control. Too often it is viewed simply as a revenue producing device, while its socio-economic implications are overlooked.[51] As will be later demonstrated, the power of taxation can not only be beneficial in its encouragement of certain aspects of land-use, but it can be destructive -- "it can destroy land use planning and zoning as well as destroying a landowner's alternatives".[52]

In any discussion of property taxation, the problems of land speculation and urban sprawl are bound to appear. Bryant cites, as an example, a pre-war investigation by

a Commission on Unemployment appointed by the Ontario Government, which advocated site value taxation on the grounds that "a reform of the present system of taxing land appears indispensable to lessen the evils from speculation in land which contributed to the recent industrial depression".[53] It has been claimed, on numerous occasions, that a system of taxation based on site values, rather than on buildings and improvements, would greatly reduce the so-called "social evils" of land speculation in cases where owners of vacant land reap an unearned increment as a result of land value appreciation.[54] It is thought that the holding of land for speculative purposes would thereby be discouraged, land prices would tend to decrease, and the continual outward expansion in search of cheaper land would be checked.[55] Inherent in the theory of site value taxation is the belief that, if taxes were removed altogether from buildings and improvements, and increased on land, (a) land would thus become a less attractive investment, and it would cost more to hold it idle; (b) there would be no less land available for use and it would not deteriorate with time as buildings do, but the cost of holding it would rise; and (c) there would be no tax increase if the land were built upon -- this would have an obvious bearing on the urban renewal problem as well as on new development.[56]

Proponents of this system of heavy land taxation believe that the net result would be "... a totally constructive and ameliorating effect in harmony with the aims and efforts of conscious town planning".[57] They disclaim the generalization that a heavy tax would stifle enterprise, citing Mason Gaffney as having stated: "what stifles enterprise is how the tax varies when the taxpayer acts enterprising".[58]

It is important to note that present provincial law does not permit municipalities to use property taxation as a planning device -- regardless of its potential utility and effectiveness in this respect.

It is the view of several experts that much speculative activity and urban sprawl could be prevented if properties were assessed "by the rules". The problem, according to Wenzlick, "... lies in the failure on the part of assessors to assess properties on the basis of fair market value rather than on use .... Land use for truck gardening or farming is assessed on a nominal basis, while adjoining land developed into subdivisions is assessed more nearly in relationship to its fair market value".[59] Bryant concurs with this viewpoint:

> ... a great deal depends on the extent to which tax assessors' valuations of property approximate to the true market

> value. Under-assessment is chronic. Opponenets of site value taxation often emphasize this point. On the other hand, very many parcels of vacant land remain undeveloped, even in the heart of mature built-up areas. If the owners had to pay taxes thereon based on their true market value they would be less likely to leave them undeveloped a day longer than possible. To this extent, sprawl on the outskirts would be discouraged, and redevelopment to a higher standard encouraged.[60]

Strictly from an economic standpoint, the most preferable property taxation system would be one that imposed variable taxes and subsidies on different land uses.[61] The marginally less attractive land use would be subject to a higher tax, while the most attractive land uses could be offered outright subsidies. Then as the community develops, the tax and subsidy terms could be changed so as to encourage more -- or discourage less - specific land uses.

According to Netzer, such a system would have two particular advantages.[62] The first would be the fact that it would offer the private developer an opportunity to make adjustments in his development plan, and obtain better financial terms if these terms proved worthwhile. Moreover, he could trade-off among the various features of his proposal, so as to procure the best terms -- for example, he might provide more off-street parking in order

to be allowed greater site coverage. The other major advantage of this taxation system would be that it could provide for direct monetary compensation to adjacent land-owners for damages that would occur from a proposed new land use. Although the present system of zoning is designed to limit the occurrence of such damages, the only option open to an adjacent land-user is to formally protest the porposed new used, no matter how small the prospective harm. As an example, land-use changes leading to higher-density housing in a particular neighbourhood might result in increased traffic volumes. Even if the actual increase was small, there is always the incentive to object to proposed zoning changes. However, there could conceivably be many instances wherein a simple payment of financial damages -- for example, a settlement that enables existing property owners to construct protective fences and shrubbery -- might be sufficient to eliminate the objection.

Clearly, as Netzer observes,

> ... such a system requires a great deal of sophisticated decision-making by planning agencies, in explicit, quantitative terms. It is by no means easy to implement. But the difficulties should not disqualify the approach. It should be kept in mind that the existing control system - zoning - does not involve public decision-making on the same issues.[63]

Public Ownership of Land

Land ownership by the state is the most direct method of eliminating the conflict -- between (a) the private interest, which normally attempts to put a given piece of land to the most remunerative use for which a market can be found, and (b) the public interest, which tries to ensure the best use of all land irrespective of monetary return -- a conflict the effects of which have already been discussed. The social costs and dangers of improper and speculative subdivision have led some American experts to the conclusion that the only guarantee for efficient and economical urban growth would be public ownership of peripheral areas.[64] In this way, at least, municipalities would have the power necessary to guide their future expansion according to a "master plan" without having to contend with the often conflicting interests of the private sector.

Recently, there has been a somewhat renewed interest in the public acquisition and disposition of land, particularly in the marketing of land on the periphery of existing urban areas. In North America the technique considered the most acceptable has been termed "land banking" -- involving the public purchase of land several years in advance of urbanization, and the subsequent selling or preferably leasing to the private sector for development,

subject to certain conditions. The position of the 1968 Report of the Task on Housing and Urban Development is very clear in this respect: "Municipalities or regional governments, as a matter of continuing policy, should acquire, service and sell all or a substantial portion of the land required for urban growth within their boundaries".[65] The so-called "Hellyer Report" justified its recommendation by citing two important benefits which could be achieved with such a system -- (1) cost efficiency and (2) planning effectiveness. With respect to the former benefit, the Report noted several types of savings which could be realized. In the first place, the cost of raw land could effectively be reduced if the public sector acted as a nonprofit broker by selling or leasing land at a price which reflected only the actual costs of acquiring and holding the land, thus eliminating the speculative element which private entrepreneurship would likely have added. Secondly, public ownership could result in substantial economies of scale if land were assembled, serviced and developed in large tracts. At present, a large property with good development potential but which is artificially fragmented by ownership creates numerous problems:

> The owner of one piece may be anxious to proceed with development - only to find that the neighbouring property, often the

> one through which trunk services must pass, is in the hands of a speculator holding out for even larger profits or is caught up in the legal haggling of a contested estate. The result is confusion, ever more regulation and restriction, and ever-rising cost.[66]

The Task Force suggested that not only could substantial saving be realized in the servicing of large parcels but also the developer's risk and costs would be reduced due to the possibilities of delay arising from speculative holdouts being eliminated. Thirdly, the Report proposed that a policy requiring local governments to service the land they assemble would have an additional significant effect on land costs. Apparently there is a tendency among municipalities "... to require extremely high, if not exorbitant, standards of service.... thus saving themselves repair and maintenance charges in the years ahead, when someone else, i.e., the developer and ultimately the consumer, are paying the servicing shot. It seems fair to speculate that their requirements might not be as severe if their land and their money were involved".[67]

With respect to the effectiveness of urban planning the case for municipal land assembly and servicing is further advanced by the Report, which accepted the contention of one project developer who stated: "'There is no use dreaming about planning a city unless you own the land.'"[68]

> While one can argue over degree, the basic logic seems incontestible.... How can a municipality ensure that its pattern of growth is efficient and logical when basic decisions as to the sequence of land acquisition and servicing rest with the private developers, many of whom lack the will, the expertise, and the capital to take an overall view of urban development? [69]

In order to assist municipalities or regional governments in the task of assembling and servicing land for future urban growth, the Report suggested that the federal government provide direct loans on an economic rather than a subsidized basis. The redemption of some profit element, presumably to offset the interest on federal loans or even to aid in the development of land reserved for public uses, is not specifically precluded -- but the overall aim "... must be to reduce the cost of serviced land to the ultimate consumer".[70] Finally, in the case of industrial, commercial or multiple-unit developments, the Task Force suggested the leasing of publicly-acquired land as opposed to selling. In addition to the long-term planning benefits which could be realized, "... such a system would help ensure that some of the socially-created increment in land values accrued to the community at large through the terms of leases".[71]

It would be appropriate at this stage to briefly examine some instances where public ownership of land in

urban areas has been particularly effective. In many European centres it has been an accepted system for years. Since 1904 -- well before the rise of the present Social Democratic government in Sweden -- the city of Stockholm has maintained a policy of acquiring as much land as possible when it comes on the market.[72] The city owns over 60,000 acres, one-sixth of which lies within the city limits. In fact, municipally-owned land is greater than the total area of the city itself, most of it being leased to private developers for periods of 50 to 75 years. This has been instrumental in the successful execution of Stockholm's master plan, the end result being the fact that it is commonly considered one of the most liveable, well-planned cities in the Western World.

In England, the city of Coventry owns about one-third of its area, mainly on the periphery. In contrast to many continental European cities, Coventry does not lease it s municipally-owned fringe lands, but either develops them directly for public benefit -- in the form of municipal housing, schools, playing fields and parks -- or deliberately retains them in agricultural use in order to preserve land from future development as well as maintain a green belt. According to Bryant:

> The city of Coventry derives enormous benefit from this municipal estate. Much of it was purchased many years ago, so

> that its cost to the city was a fraction of its actual present value. If the city continues to grow at the present rate, and a radical revision of the green belt becomes necessary, then the city already possesses considerable reserves of land, at present farmed, which can be made available at low cost.[73]

By comparison to European standards, the general attitude to land ownership in North America is "... much less sophisticated and mature -- if maturity in a democracy is to be judged by the extent to which public good is held to override private profit seeking".[74] Some time ago, The Yale Law Journal predicted that the public assembly of "large, contiguous areas of land" would be particularly difficult in a country like the United States, "... where real estate is characteristically in many small ownerships and where a lingering 'laissez-faire' philosophy resists any modification of an individual owner's property rights".[75] Recently, however, in both Canada and the United States, there is a noticeable trend towards public participation in land development, along the lines of the European experience. An excellent example is the rapidly growing city of Rockville, Maryland, not far from the new town of Columbia. In an article entitled "Land Speculation in the Public Interest", Jordan has explained how the city -- using techniques normally associated with private investors -- acquired and disposed of a large

tract of fringe land, the profits from which are helped to finance necessary municipal services.[76]

The concept of "public sector capitalism" is certainly not unknown in Canada, considering the experience of several cities -- in particular, Red Deer, Saskatoon, and Prince George. City-owned land on the outskirts of Red Deer is sold outright to developers, but strictly in accordance with an overall plan which regulates the tempo of development and coordinates the arrangement of public services. According to one observer, "... this procedure is eminently satisfactory from the point of view of the house-builders, who can plan their operations in the full knowledge that serviced land will be available at reasonable cost, as and when required".[77] Similarly in Saskatoon, municipal land ownership -- which originally resulted from numerous tax payment defaults on large quantities of land during the depression years -- has ensured orderly urban development. The Hellyer Report was noticeably impressed by the fact that land costs in Saskatoon have been "held in check", despite the fact that the city's population had more than doubled over the five previous years.[78] Furthermore, since receiving the original depression windfall, "... Saskatoon has continued to acquire land, sufficiently ahead of development to keep prices down, to the point where it has been able to accommodate

current urban expansion and still build up an inventory of some 5,000 acres which should meet development needs for the next twenty years".[79]

Beginning with a land assembly scheme for Central Mortgage and Housing in 1956, the city of Prince George has since maintained a policy of public land acquisition.[80] The "Land Grant Trust Fund" was established, and for several years the city has exercised its option under a contract with the Provincial Government to purchase Crown Land on the urban fringe at $2,000 per acre. Although the basic contract still exists, the purchase price of future land is renegotiable by both parties. Recently, by taking advantage of little-known section of the National Housing Act, Prince George has embarked on a program to acquire 220 acres of privately held land for land banking purposes. As the city expands at the rate of 40 to 50 acres annually, this new tract of land will be a reserve for five years. Municipally-held land presently accounts for between 85 and 90 per cent of the total land made available for development.

REFERENCES

1. R. W. G. Bryant, "Land Speculation: Its Effects and Control", Plan, Vol. 5, No. 3, February 1965, p. 110.

2. Mary Rawson, "The Public Interest in Land", Paper presented at the Twelfth International Conference on Land-Value Taxation and Free Trade, Caswell Bay, Wales, September 1968, p. 1. What follows here for the next few paragraphs reflects in large part the sentiments expressed by Miss Rawson in the early part of her paper.

3. loc. cit.

4. loc. cit.

5. ibid., p. 2. Miss Rawson cites the following two countries where the land system is close to that described: Venezuela (with 3 percent of landowners owning 90 percent of the land), and Chile (2 percent owning 52 percent).

6. Philip M. Rawp, "Public Land-Use Controls in Selected European Countries", Land Use Controls, North Central Land Tenure Research Seminar, Chicago, 1963, p. 33.

7. Rawson, op. cit., p. 3.

8. John E. Cribbet, "Private Property and the Public Interest - Conflict?", The Private Property and Public Interest Conflict, Clyde W. Forrest, ed., University of Illinois, 1969, p. 3. He states further that "The basic failures of planning are most directly related to our concept of private property and to our unwillingness to face squarely the implications of our property system (p. 1)."

9. Paul A. Samuelson and Anthony Scott, Economics: An Introductory Analysis, McGraw-Hill, Toronto, 1966, p. 160.

10. R. W. G. Bryant, "Land Ownership and City Development", Plan, Vol. 4, No. 1, June 1963, p. 43.

11. ibid., p. 44.

12. see also, Bryant (1963), p. 43.

13. Jesse Dukeminier, Jr., "Foreward: The Coming Search for Quality", UCLA Law Review, Vol. 12, No. 3, March 1965, p. 714.

14. Bryant (1965), op. cit., p. 110.

15. Dukeminier, op. cit., p. 715. Society's interest in the optimal allocation and/or development of land resources is necessarily much greater than that of individuals. Individuals are generally assumed to operate under high time preference rates and short planning periods. Society, on the other hand, tends to use longer planning periods and lower discount rates not only because of its concern for future generations but also because of its ability to borrow money at low interest rates.

16. Joseph M. Heikoff, "Social Determinants and the Public Interest", The Private Property and Public Interest Conflict.

17. for example, the determination of levels of unemployment is accepted as a concern of social and economic policy.

18. Coleman Woodbury, "Some Suggested Changes in the Control of Urban Development", Journal of Land and Public Utility Economics, August 1929, p. 249, (cited by David W. Slater, "The Political Economy of Urban Changes in Canada", Queen's Quarterly, Vol. 67, No. 4, Winter 1961, p. 3).

19. Slater, op. cit., p. 8.

20. Richard U. Ratcliff, Real Estate Analysis, McGraw-Hill, Toronto, 1961, p. 243.

21. Richard U. Ratcliff, Urban Land Economics, McGraw-Hill, Toronto, 1949, p. 301.

22. ibid., p. 297.

23. loc. cit.

24. Slater, op. cit., p. 8.

25. H. W. Hannah and N. G. P. Krausz, "The Role of Law in the Development of Land Resources", Modern Land Policy, University of Illinois Press, Urbana, 1960, p. 325.

26. George S. Wehrwein, "The Rural-Urban Fringe", Readings in Urban Geography, Mayer and Kohn, eds., p. 533.

27. It is important to note that public intervention in the urban land market often inherently produces externalities that can materially affect land values. The concepts of "compensation" and "betterment" are concerned with both the practicability and desirability of compensating those landowners made worse off, and to levy some charge against those made better off, as a result of public intervention's externalities. See articles by Turvey and Munby on the compensation-betterment problem in The Economic Journal June 1953, March 1954, and June 1954; also cf. The "Uthwatt Report", British Parliamentry Papers, Cmd. No. 6386, Vol. 4, 1941-42.

28. Ralph Turvey, "What is the Case for Planning?", Journal of the Town Planning Institute, September/October 1955, p. 270.

29. Jack Hirschleifer, et al., Water Supply: Economics, Technology and Policy, University of Chicago, 1960, p. 79.

30. Frederick H. Bair, Planning Cities, American Society of Planning Officials, Chicago, 1970, p. 255.

31. Milton Friedman, "The Role of Government in a Free Society", Private Wants and Public Needs, Edmund S. Phelps, ed. p. 107.

32. Richard M. Yearwood, "Land Speculation and Development: American Attitudes", Plan, Vol. 9, No. 1, March 1968, p. 20.

33. ibid., p. 21.

34. John Delafons, Land-Use Controls in the United States, The M.I.T. Press, Cambridge, 1969, p. 20.

35. John F. Rowlson, "Zoning vs. Alternate Value", The Appraisal Journal, Vol. 3, No. 4, October 1963, p. 514.

36. E. A. Levin, "Zoning in Canada", Community Planning Review, Vol. 7, No. 2, June 1957, p. 86.

37. New Jersey Superior Court, "Borough of Cresskill vs. Borough of Demont (1953)", cited by Delafons, op. cit., p. 33.

38. William I. Goodman, Principles and Practices of Urban Planning, The Municipal Management Series, International City Managers' Association, Washington, D.C., 1968, pp. 403-404.

39. Bair, op. cit., p. 259.

40. Hugh D. Nourse, Regional Economics, McGraw-Hill, New York, 1968, p. 236.

41. Dick Netzer, Economics and Urban Problems, Basic Books, Inc., New York, 1970, p. 126.

42. Ratcliff (1949), op. cit., p. 415.

43. Yearwood, op. cit., p. 21.

44. William I. Goodman and Jerome L. Kaufman, City Planning in the Sixties: A Restatement of Principles and Techniques, Bureau of Community Planning, University of Illinois, Urbana, 1965, p. 52.

45. loc. cit.

46. ibid., p. 55.

47. Delafons, op. cit., p. 84

48. see, for example, the articles already cited by Heneberry, Rawson and Netzer.

49. Rawson, op. cit., p. 3.

50. ibid., p. 4.

51. for example, when raw land is taxed at the going rate for subdivision land, it becomes impossible for the owner to keep it undeveloped; thus development will occur, in spite of possibly a greater need for open space.

52. Cribbet, op. cit., p. 3.

53. cited by Bryant (1965) op. cit., p. 116. Another example of blaming land speculation for everything wrong with the world....

54. for a more detailed discussion of the efficiency of the site tax as a curb on speculation, see: Ralph Turvey, The Economics of Real Property, George Allen and Unwin, London, 1957, Chapter VII, particularly pp. 87-92.

55. Nigel Richardson, "Can We Stop the Spread?", Community Planning Review, Vol. II, No. 2, June 1961, p. 10.

56. Rawson, op. cit., p. 4.

57. ibid., p. 5. The Royal Architectural Institue of Canada is also a proponent of site value taxation. The Committee of Enquiry into the Design of Residential Environment (RAIC 1960) stated:

> The Provinces, at no great expense, can ascertain for Canadian conditions the benefits or disadvantages of a general change from taxes on land and improvements to a system of real property tax on site value only. The difference in these assessment methods clearly has great import for the quality of the huge residential areas we shall have to create and maintain in the years before us (para. 185).

58. cited by Rawson, op. cit., p. 4.

59. Roy Wenzlick, "Rx to Cost Land Prices: Assess Vacant Land by the Rules", House and Home, Vol. 20, No. 2, August 1961, p. 78. He states further that "...assessing farmland on the basis of use rather than market value does not help the farmer, (because) ...a large part of this land is bought by speculators and then rented to the farmers as a tax dodge (p. 78)."

60. Bryant (1965) op. cit., p. 116.

61. Netzer, op. cit., pp. 127-28.

62. ibid., p. 128.

63. loc. cit.

64. see Ratcliff (1949) op. cit., p. 418.

65. Report of the Federal Task Force on Housing and Urban Development, (The "Hellyer Report"), Ottawa, Queen's Printer, January 1969, pp. 41-43.

    The Minister of Finance has hinted of a scheme that would have CMHC work with provincial authorities to buy up large areas of land for resale to developers or individual home owners at no profit. (see The Financial Post, May 4, 1968, pp. 1-2).

    More recently, the B.C. Provincial Government has been urged to launch a land assembly scheme of its own in urban areas "...to drive down prices inflated by speculators and remove a barrier to the acquisition of reasonably-priced homes..." (see The Province, February 10, 1970, p. 7).

66. Task Force Report, op. cit., p. 41.

67. loc. cit.

68. loc. cit.

69. loc. cit. Similar opinions are held by James Rouse, the devloper of Columbia, Maryland. (see Fortune, July, 1969, p. 127).

70. ibid., p. 42.

71. ibid., p. 43.

72. The ensuing details on Stockholm and Coventry are from Bryant (1965), op. cit., pp. 117-120.

73. Bryant (1965), p. 119.

74. loc. cit.

75. The Yale Law Journal, Vol. 52, 1943, p. 635.

76. Fred Jordan, "Land Speculation in the Public Interest", City, Vol. 5, No. 1, January/February 1971, pp. 85-86.

77. Bryant (1965) op. cit., p. 120.

78. Task Force Report, op. cit., p. 40.

79. loc. cit. See also S. Buckwold, "Land Policy in Saskatoon", Habitat, Vol. 5, No. 1, January/February 1962, pp. 149-152.

80. Information regarding Prince George stems from research currently in progress by Craig Laronge, Faculty of Commerce and Business Administration, University of British Columbia, 1971.

CHAPTER IV

THE STUDY AREA

INTRODUCTION

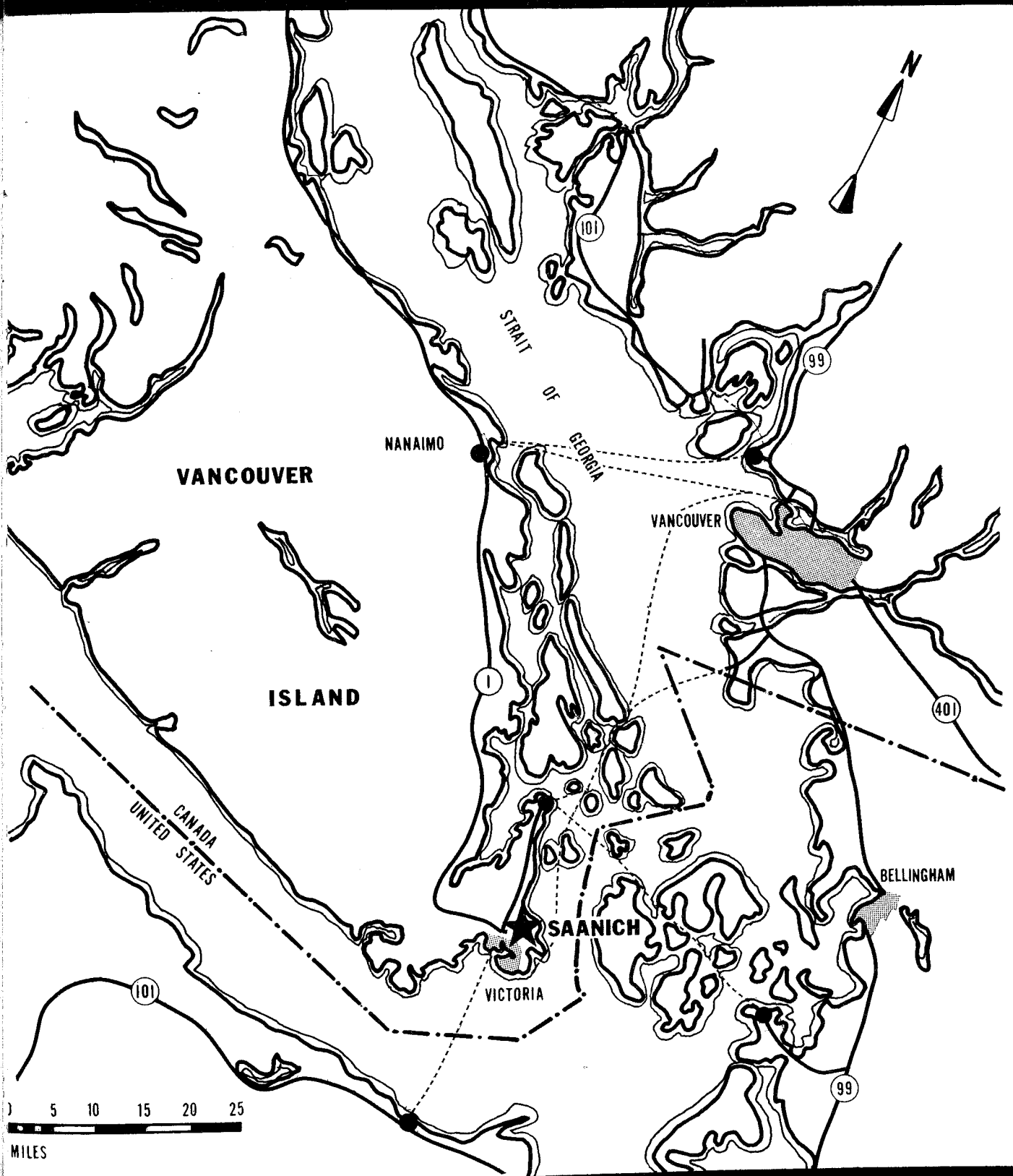
The Saanich Peninsula is located at the southeastern tip of Vancouver Island. Victoria, the capital city of British Columbia lies at the southern end of the Peninsula. The study area chosen for this report was the Municipality of Saanich, a community of some 70,000 persons, immediately north of the city of Victoria. This chapter describes the history and growth of the Victoria Region in general and of Saanich in particular.

REGIONAL SETTING

Topography

The Saanich Peninsula is generally a low-lying area. With the exception of several rock outcroppings, this low-land area comprises all land below the 500 foot contour. It has an area of about 90 square miles and is well-defined as a peninsula, being bounded by water on three sides and by a rocky, mountainous forested area on the western side. Apart from this western boundary, the main physical characteristic of the Peninsula is that of a coastal plain broken by a number of prominent features--hills, valleys, ridges, rocky areas at higher elevations, lakes and low-lying areas subject to flooding.[1] The topography of the Saanich Peninsula is illustrated in Figure IV.

LOCATION MAP



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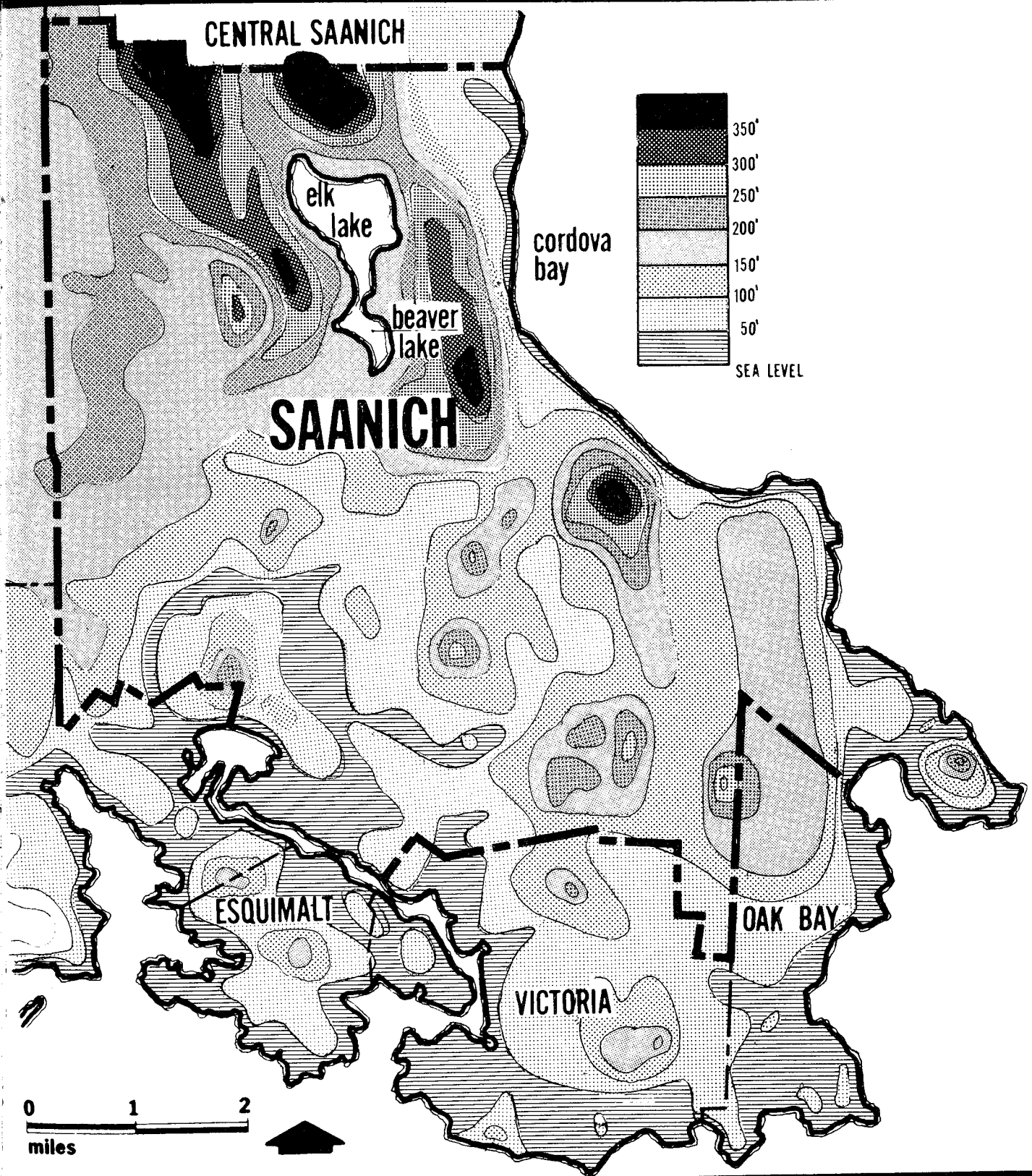
TOPOGRAPHIC MAP



Source: Capital Region Planning Board, The Capital Region Plan, Victoria, 1959.

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Geology

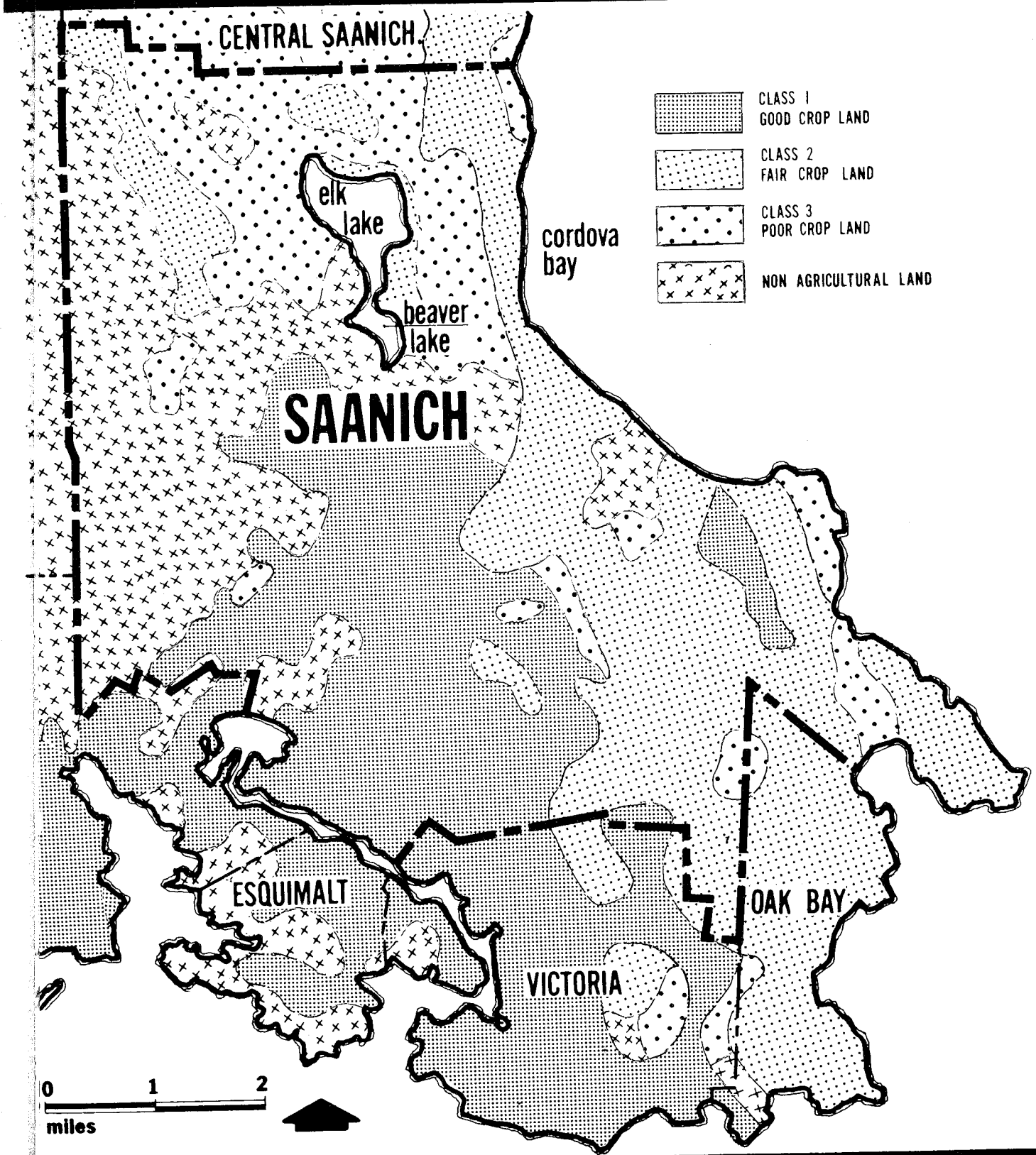
Figure V classifies the soils in the Victoria Region according to their agricultural suitability. This has been based on factors which largely determine land capability--texture, depth, moisture-holding capacity, natural fertility, drainage, permeability, topography and stoniness of the soil.[2]

The rural areas of the region still depend chiefly on agriculture. Favourable climatic conditions, combined with good terrain and soils facilitate the agricultural production. Due to the peninsular configuration of the land along with variations in topography and soils, there is a very noticeable change in the character of farming as distance from the city of Victoria increases. The usual pattern of agricultural development--intensive use of small plots near the urban area, to more extensive use of larger tracts further from the City. Agricultural production varies from specialized horticultural crops--cut flowers, bulbs, hothouse vegetables, strawberries, loganberries and other small fruits--to dairying, market gardening and poultry.

Historical Development[3]

The city of Victoria was originally established in 1843 as a new trading post for the Hudson's Bay Company. The new settlement expanded slowly during its formative

GEOLOGICAL MAP : (Soil Classifications)



Source: C.N. Foreward, Land Use of the Victoria Area, Geographical Paper No. 43, page 6.

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years. However, in early 1858, news of the gold discoveries in the Fraser and Thompson Rivers--and later the 1862 Caribou gold rush--brought thousands of miners and their suppliers into the area. During these years the settlement greatly expanded, and in 1862, Victoria was incorporated as a city.

After the gold rushes a period of recession set in, giving impetus to thoughts of political reorganization. Union of the colonies of Vancouver Island and the Mainland was finally agreed upon in 1866, and, after much negotiation, Victoria was named the capital of the enlarged colony known as British Columbia. In 1871, when British Columbia joined Confederation, Victoria retained its status as the capital city.

For a time after Confederation, Victoria grew rapidly as the key administrative, financial, commercial and industrial centre of the most westerly province and retained its provincial leadership in trade and manufacturing until the 1890's. In fact, as long as approach by sea remained the main access to the province, Victoria enjoyed a favourable position and economic growth was considerable. The city grew from slightly less than 6,000 in 1881 to nearly 17,000 in 1891.[4]

During the latter part of the 1890's Vancouver began to take over Victoria's position as the leading port and

commercial centre of the province. By 1900 pre-eminence in both trade and industry had shifted to the mainland and Victoria became more preoccupied with government and tourism. Nevertheless, between 1891 and 1911, the population of the City nearly doubled, reaching a total of about 32,000. According to Foreward, although Victoria "... by this time already had a reputation as a desirable retirement spot, [it] was not yet outstanding in this respect."[5]

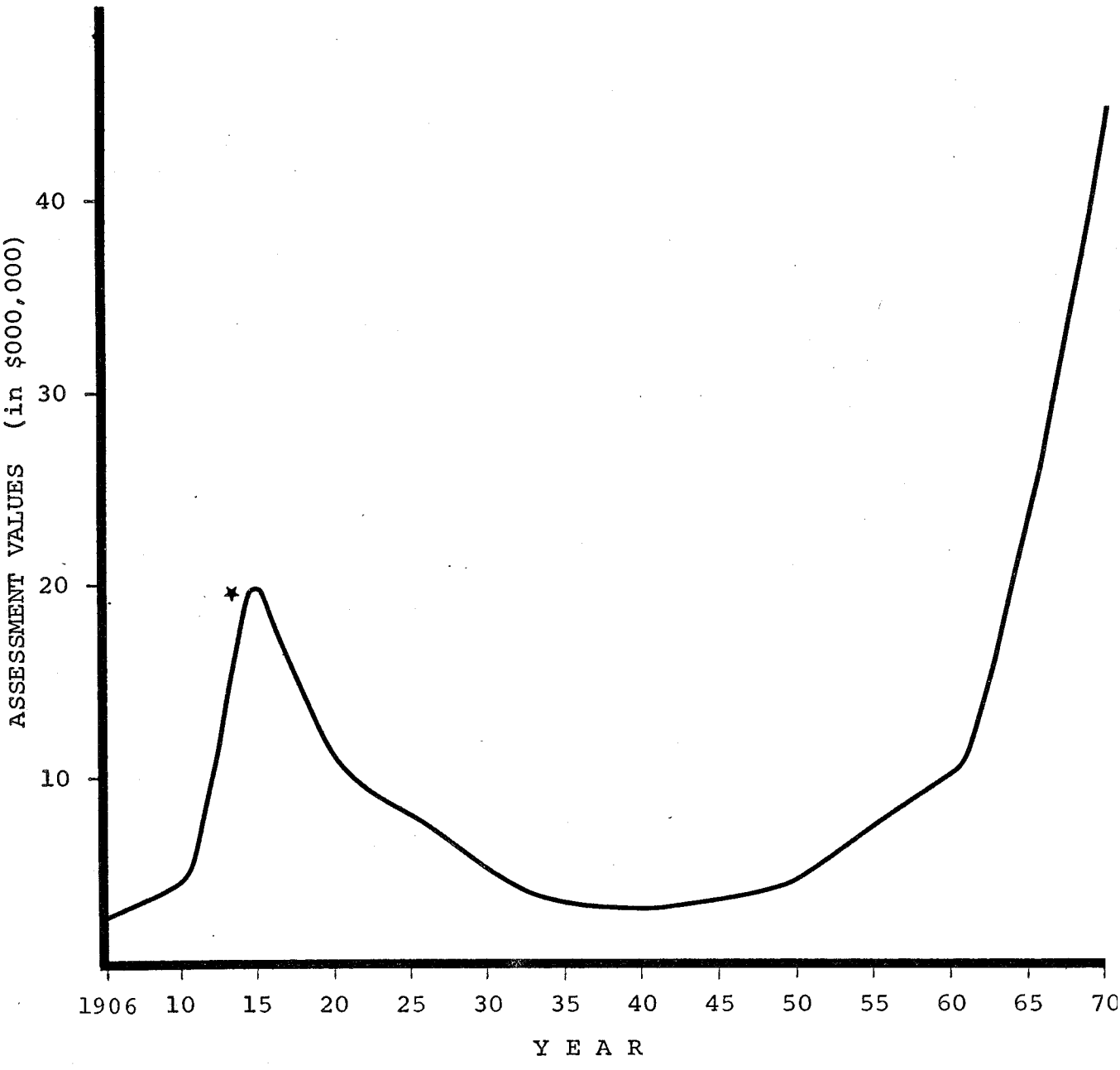
There was a large real estate boom in the years immediately prior to the First World War, and with it "... the biggest wave of land speculation in (Victoria's) history."[6] In residential areas near the city, 60 x 120 foot lots were selling for $5,000 in 1912 compared to only $400 six years earlier.

> Downtown land prices were equally fantastic. On Douglas Street, Fisgard to Hillside, the land sold at $500 per foot. Downtown corner lots went for $15,000. Senator J. MacDonald ... sold 27 acres in James Bay for $1,000,000 and the Balmoral Hotel sold for $500,000.[7]

Considering that a 1912 dollar would be equal to $10 today,[8] these land prices were incredibly inflated. In fact, those who held onto their land investments through the subsequent collapse of the market, "... were able only in the 1960's to realize the prices they had paid 50 years previously and those prices with dollars halved in value."[9]

Figure VI

LAND ASSESSMENT VALUES IN THE
MUNICIPALITY OF SAANICH
1906 - 1970



*"The Great Land Boom" (1914 - $20,109,135)

Source: Assessment Department, Municipality of Saanich

Although the rate of population growth during the Twenties and Thirties was lower than at any time before or since, the percentage of residents over the age of 65 increased noticeably.[10] The activity on the Pacific as a result of the Second World War bolstered Victoria's economy and local industry recovered from the depression years as a result of the demands bred by Wartime necessity. Following the War, "... the flood-tide of development and immigration was running to the West. The tide is still running."[11]

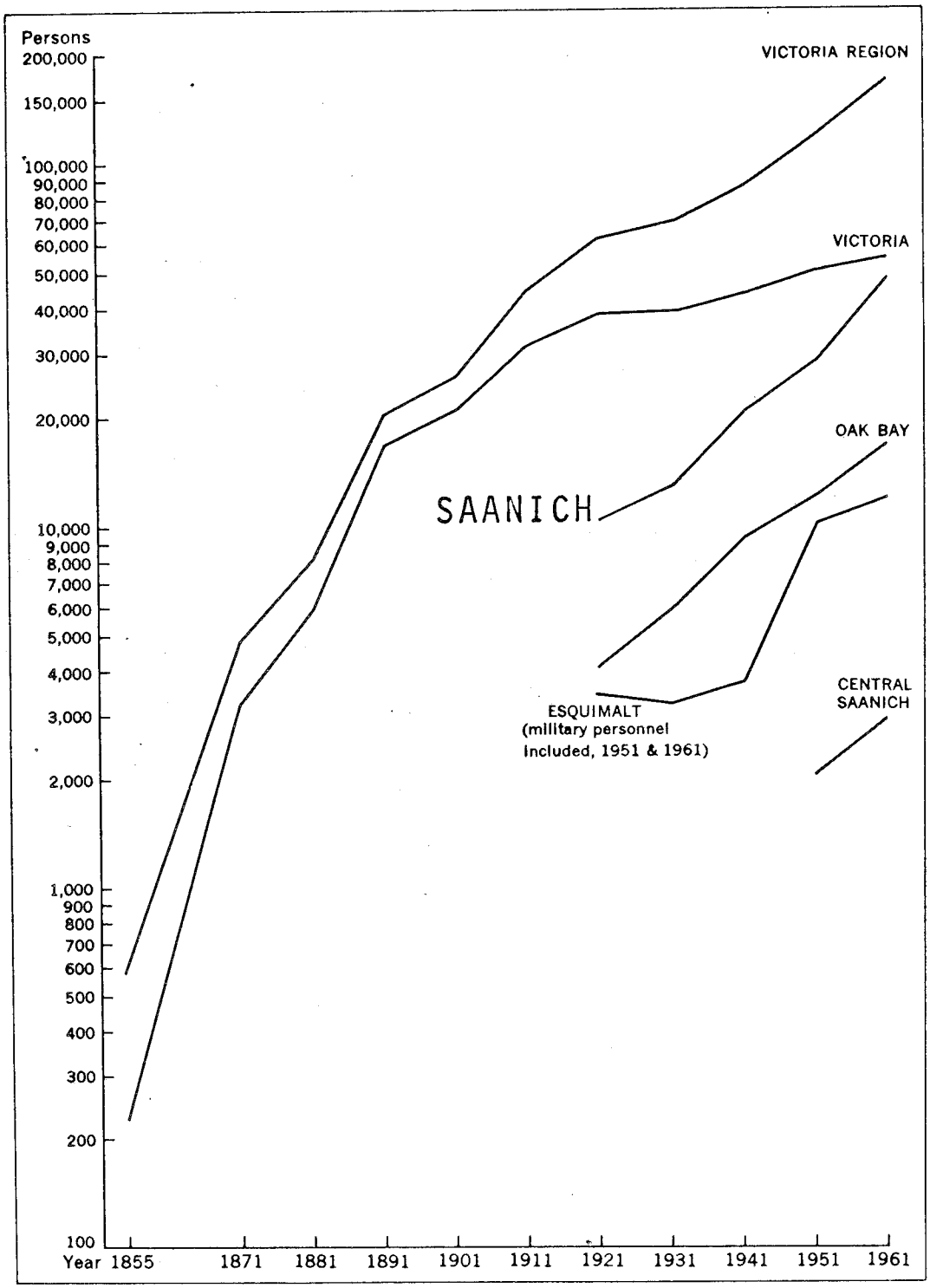
A summary of the Region's population growth since 1855 is shown by FigureVII. As the population figures are plotted on a logarithmic scale, the resulting curves accurately represent rates of growth. From the graph it is visually apparent that Saanich is the fastest growing area, and that Victoria's growth is increasing at a faster rate than at any time since the 1900's.

Figure VIII depicts population projections to the year 1981.

By 1986 the total population of Metropolitan Victoria is projected to be 275,000, of which 130,000, or 47.3 per cent will locate in Saanich - if present development trends are sustained. A slower rate of growth in the developed areas of Esquimalt, Oak Bay and Victoria City can be attributed to two factors:[12]

Figure VII

RATE OF POPULATION GROWTH IN THE VICTORIA REGION

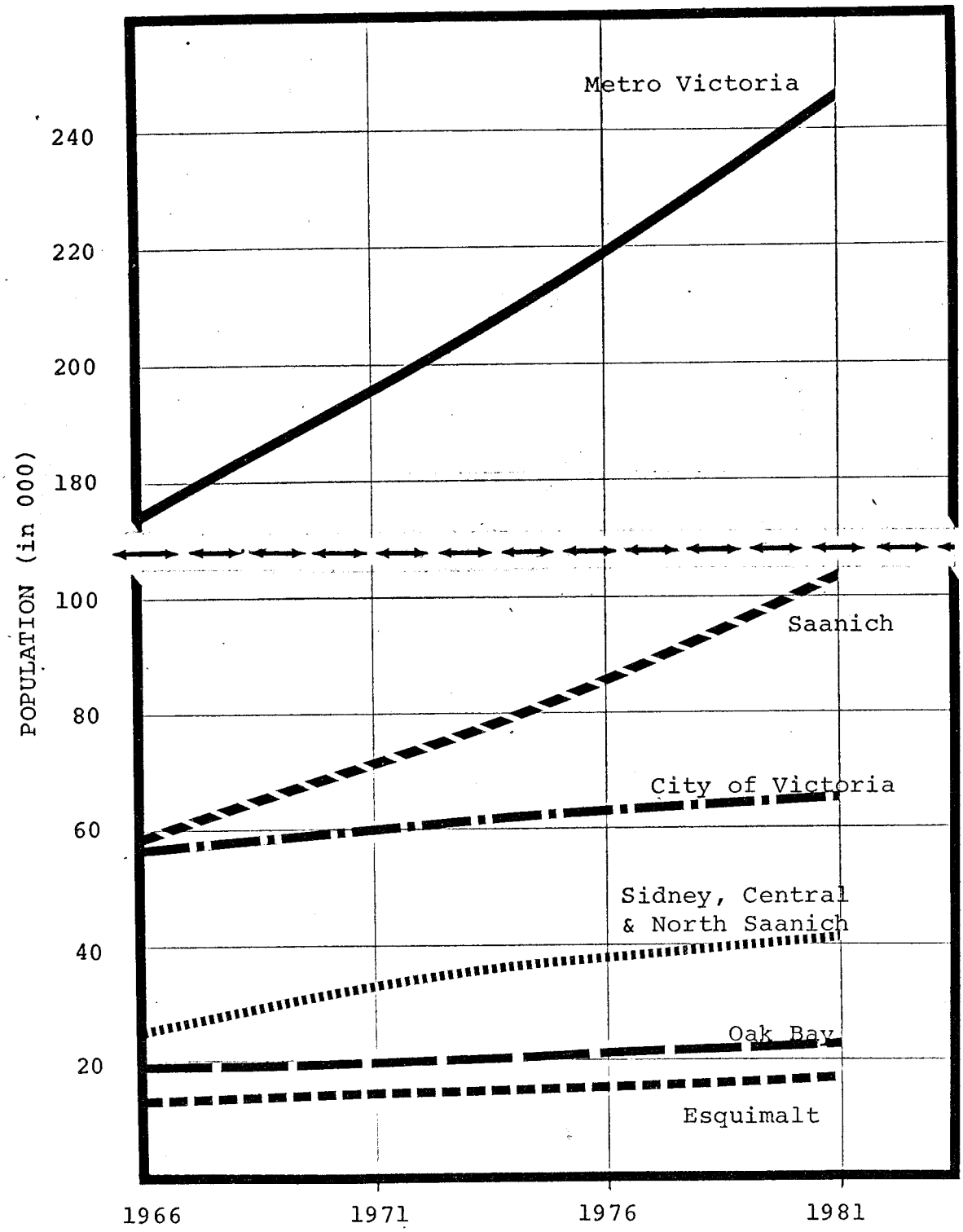


Source: C.N. Foreward, Land Use of the Victoria Area, B.C., Geographical Branch, Department of Energy, Mines and Resources, Ottawa, Queen's Printer, 1969, p. 13.

Figure VIII

POPULATION PROJECTIONS, METROPOLITAN VICTORIA,

1966-1981



Source: Planning Department, City of Victoria, Economic Survey of Metropolitan Victoria, p. 6.

1. Most of the land in these areas has already been developed, so that an increase in population may only be accommodated by redevelopment at higher densities.

2. Families with children have an obvious preference for suburban living, and thus are normally obliged to located outside the older municipalities.

Spatial Development

In 1849, the Hudson's Bay Company was officially given permission to colonize all of Vancouver Island, and to attract as colonists "men of means, good character and high social standing."[13] In order to only attract these "country squires", the price of land was set at one pound sterling per acre, with a minimum required purchase of 20 acres.[14]

During the 1850's settlement of the area expanded slowly but steadily, despite the discouragingly high price of land. In 1859, about 20,000 acres of land in the various districts between Victoria and the tip of the Saanich Peninsula were put up for sale at one dollar per acre, having just been surveyed the previous year.[15] These particular land sales marked the beginning of a considerable expansion of the settlement pattern in the region, and encouraged the growth of farming on the Peninsula.

The new farms that were established were owner-operated and much smaller than the huge tracts run by the

Hudson's Bay Company. The Company farms were gradually engulfed by the expanding City of Victoria, and by 1866 all of them had disappeared or had been subdivided.[16]

"As long as approach by sea remained the main access to the Province, Victoria enjoyed a favourable position and urban growth was accompanied by a corresponding agricultural settlement that effectively occupied the limits permitted by local physical conditions."[17] The fine natural harbour with the potential for accommodating the facilities associated with ocean-inland transportation was, after all, one of the major reasons for selecting the site. The harbour provided good locations for industries requiring water frontage--notably lumbering, fish packing, and a ship building and repairing industry.

Not only was the port an important function in the economic base, but it was a major element in the physical pattern of land-use. As the port activities were, at that time, vital to the economy, the growing urban area focused its attention on the harbour.

In 1885, the C.P.R. main line to Burrard Inlet was completed, and by the latter part of the 1890's Vancouver began to overtake Victoria as the leading commercial centre of the Province. However, the 1890's in the Victoria area "... marked the culmination of the land settlement period, most of the arable land having been occupied by this time."[18]

Agriculture continued to be the prime industry, and the region's total area of cropland reached 11,000 acres by 1891, compared with 9,000 acres a decade earlier.[19]

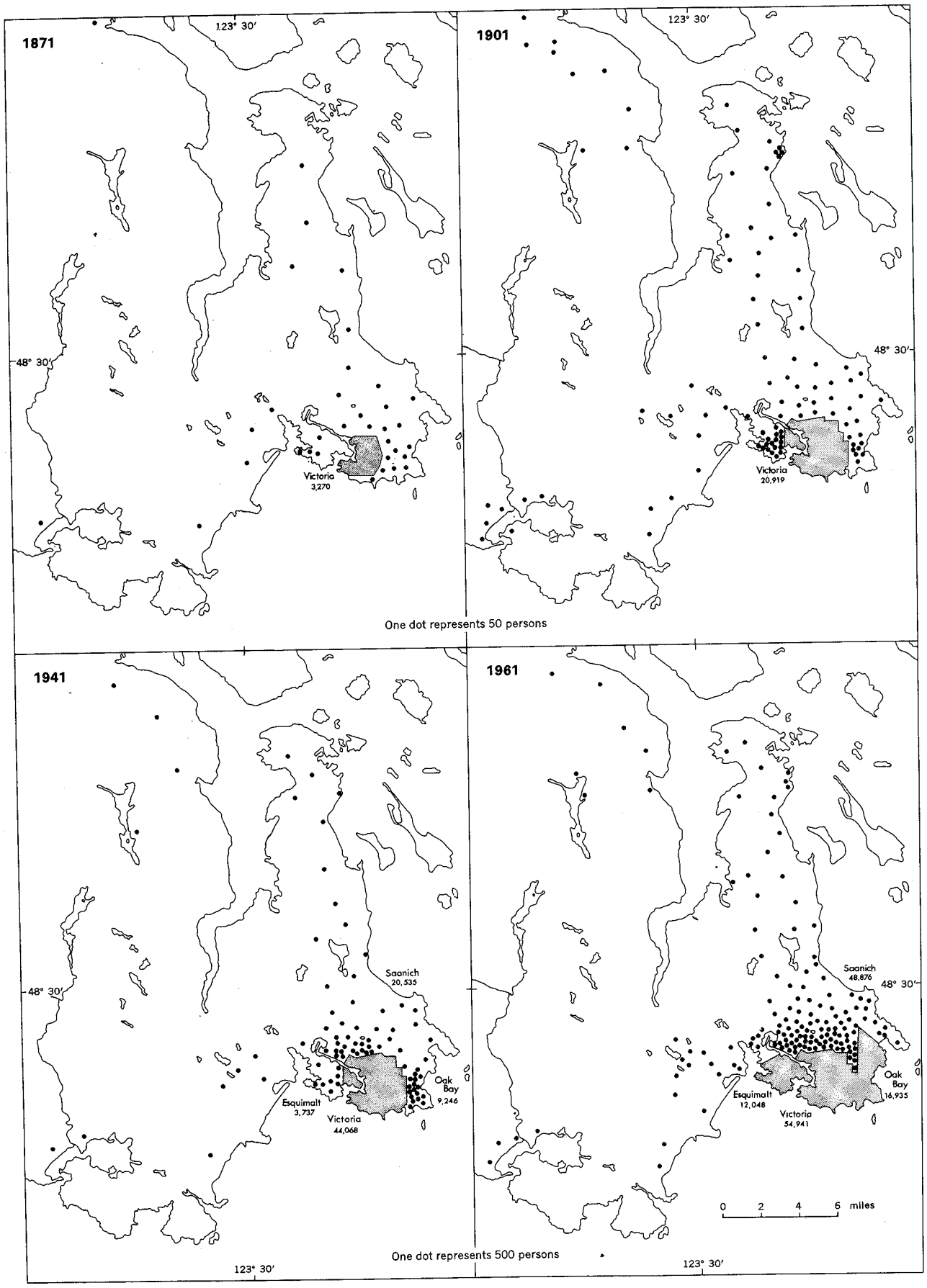
During this period there was considerable construction activity, including the development of efficient public utilities such as electricity, gas, and tramways. "Property values increased along the tram lines and the availability of transportation services encouraged residential building in outlying areas, often well beyond the city limits."[20]

Following the First World War the storage and handling facilities of the port were greatly improved and expanded. However, despite the opening of the Panama Canal in 1914, the added dock facilities, and a general expansion of trade with the Orient, the growth of the shipping trade never reached the proportions that had been optimistically forecast. Consequently, the original importance of locating near the harbour diminished and the attention of the expanding urban area began to focus elsewhere.

Figure IX not only illustrates the settlement trend away from the harbour area, but also lends support to a basic theory of urban growth that was particularly evident in those days: "... community growth flows into areas offering the least physical ... resistance to expansion."[21]

Figure IX

SETTLEMENT PATTERNS IN THE REGION



Source: C.N. Foreward, Land Use of the Victoria Area. page 14.

The expanding urban area first encroached on gently-sloping farmland in the vicinity of the city. It was not until this Century that settlement occured in physically rugged areas or on sloping land, where, for residential development at least, the view was often an important compensating factor. As Foreward observes,

> Barren rock outcrops largely denuded of soil frequently are sites of many outstanding and expensive homes. It is ironic that the level and of good soil which was considered most desirable in earlier days and was occupied first is now less valuable than the barren uplands.[22]

Almost all land suitable for agriculture had been occupied before the 1921 Census.[23] The general trend toward urbanization became more pronounced, and "Although farm land was used more intensively, agriculture was by no means developing at the same rate as population growth."[24] In fact by 1931, the distinction made in the Census showed that the farm population in the Victoria region constituted only slightly more than a third of the total.

This trend continued, and both the number of farm operators and the acreage of occupied land decreased between 1931 and 1941, but there was little change in areas of improved land, pasture, or field crops.[25] Settlement outside of the city limits continued, until in 1942 it was estimated that the regional population equalled the city population.

Following the Second World War, settlement in the Victoria region tended to be more scattered, and urban sprawl and its related problems, more pronounced. As shown by the 1951 Census, all districts experienced considerable increases in population-- particularly Saanich and the unorganized territory. During the following two decades the urban expansion was reflected in many changes in land-use patterns:[26]

1. a pronounced extension of residential land use for single family dwellings;

2. increased haphazard subdivision of farms in suburban areas, resulting in a "patchwork" of residential uses;

3. an evident trend for a certain segment of the population to apartment living, with a number of high rise blocks being constructed;

4. the development of integrated neighbourhood shopping centres, and one regional centre, in the metropolitan area; and

5. numerous new hotels, motels, and restaurants-- a reflection of the growing tourist industry.

One of the more notable trends during the last two decades was in the field of transportation. Air passenger transport reached its peak in the 1950's but steadily declined in the early 1960's due to increasing competition from the British Columbia Ferry System. As Foreward has

observed, "This fast ferry service from Tsawwassen on the mainland to Swartz Bay at the tip of Saanich Peninsula made north Douglas Street, rather than ... Victoria Harbour, the front door of Victoria."[27] In view of the fact that past experience in the Victoria area has demonstrated that the spatial distribution of urban activities is strongly dependent on accessibility, it is important to briefly consider the effects of transportation developments on the Region.

"Within cities and regions, transportation facilities constitute important elements of the land-use and functional pattern, and they serve as nuclei around which other functional differentiations within urban areas take place."[28] In most modern urban areas, and Victoria is no exception, the extent of the hinterland--and consequently the size and character of the urban area itself--is largely a reflection of the transportation connections. By providing the means for the movement of people and goods to places where they can enjoy greater utility, transportation facilities permit the concentration of labour force and material necessary for manufacturing and trade.

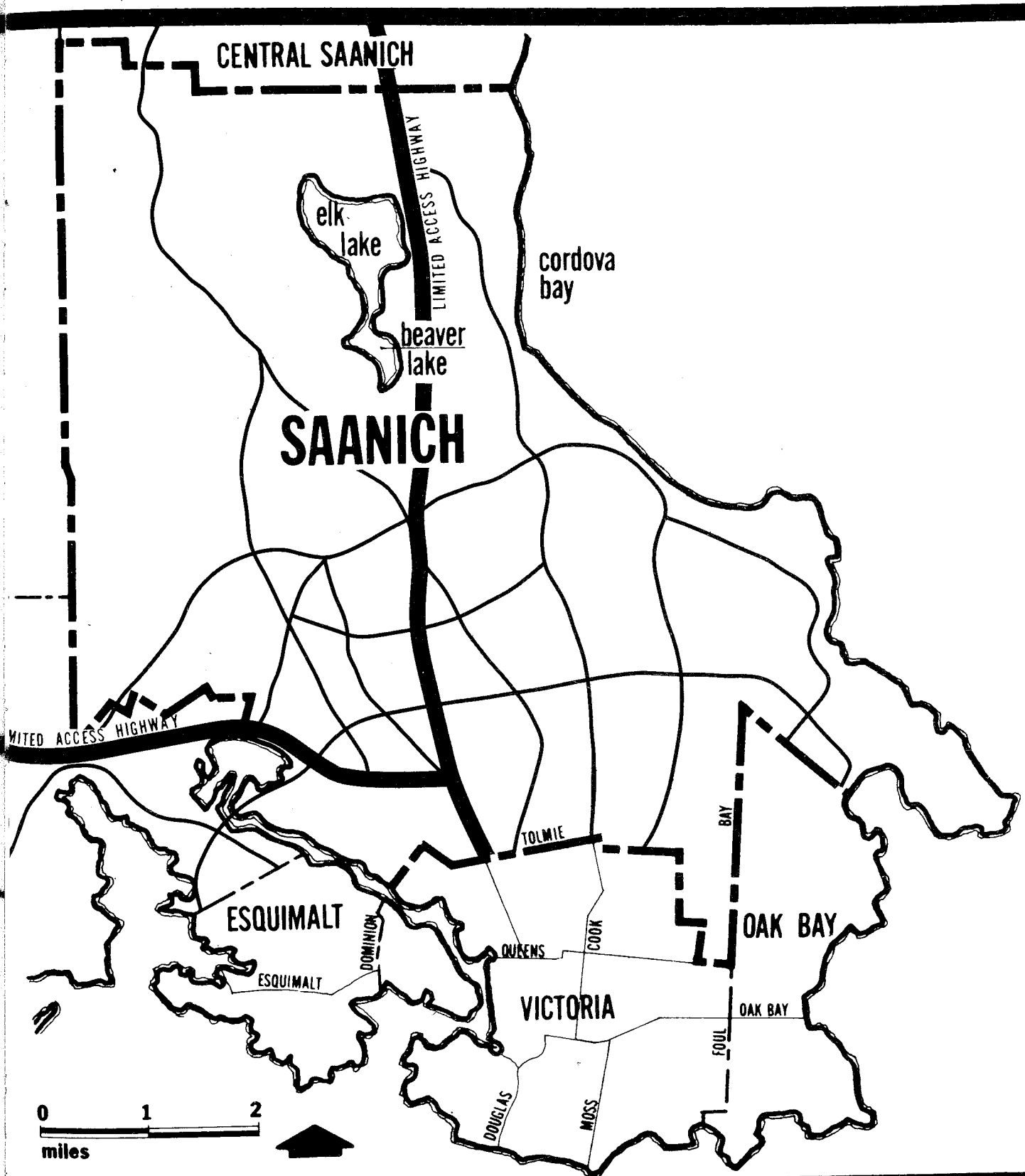
There is a distinct relationship between the pattern of land uses in an urban area and its hinterland, and the various lines of transportation that radiate from the city. As George Wehrwein states:

> Whenever a railway, an inter-urban line, or a highway leaves the city, residences, commercial establishments, and industrial plants follow like water flowing through a break in a reservoir....
>
> Since these means of transporation radiate in all directions whenever physical features do not interfere, the rural-urban fringe consists of rural territory pierced by finger-like projections of urbanized land uses.[29]

The development of the Victoria area adheres to this general theory. The spatial relations between the basic land uses--residential development, industrial areas, the Central Business District, and undeveloped open areas--determine the requirements for intra-urban transportation, "... while the location of the transportation facilities in turn determines the pattern of spatial distribution."[30]

The forecasts made earlier predict considerable population growth for the region--a growth that will naturally move into those areas offering the least resistance, both in a physical and an economic sense. The type of growth likely to prevail in the foreseeable future will be in the form of lateral expansion into surrounding agricultural areas where raw land will be converted to other purposes.[31] Topographic features will, of course, govern the location of transportation lines, and these in turn will influence the direction of city growth by accelerating axial and suburban developments.

MAJOR ROADS OF THE REGION



Source: Capital Region District.

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As Figure XI illustrates, the urbanized area has been expanding northward through that portion of the Saanich Peninsula which has the greatest width. However, the eventual outcome of this expansion will be a narrowing of the urban area from six miles wide to an average of less than three miles in width.

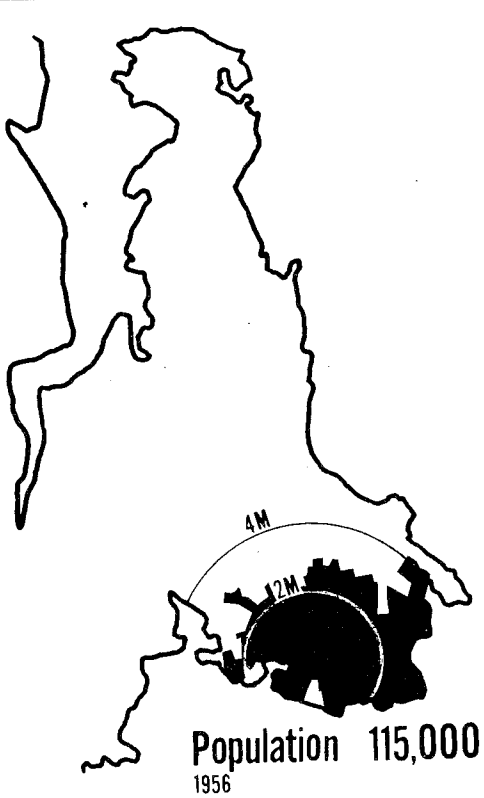
THE MUNICIPALITY OF SAANICH

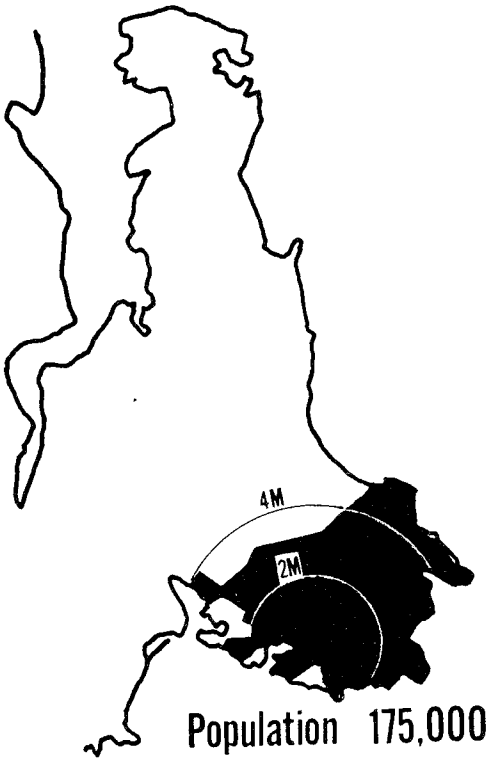
Saanich is a District Municipality, approximately 38 miles in area, situated imediately north of the City of Victoria. It is the fourth largest municipality in British Columbia, although there are a number of municipalities of similar size, some of which are growing at a faster rate.[32]

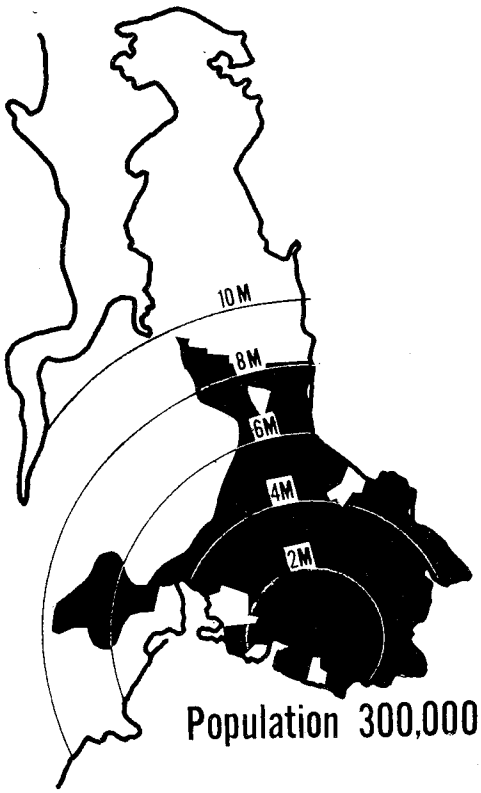
Basically, the Municipality serves as a residential suburb within the Victoria Metropolitan area. As illustrated by Figure XII it is evident that Saanich is the fastest growing municipality in the Victoria Region, and for several years it has been absorbing a relatively high proportion of the residential growth of the Region. In 1951 the Municipality was predominantly rural and hence, was the natural avenue of expansion for suburban residential building.

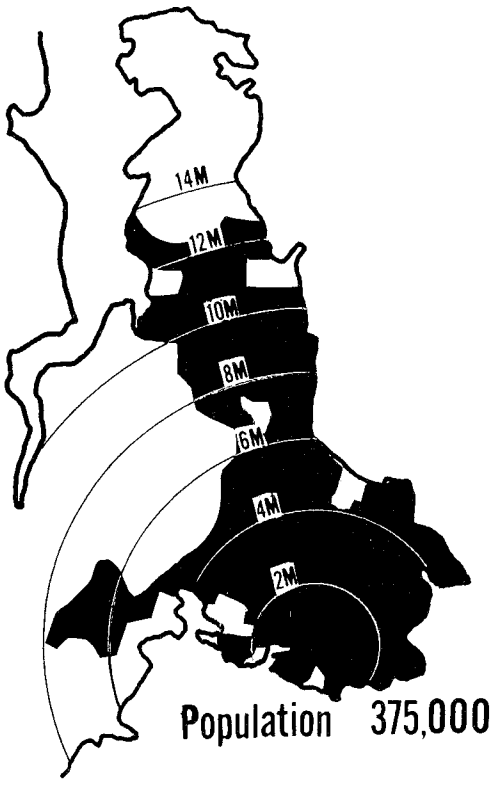
Figure XIII shows that three particular areas in

METROPOLITAN AREA GROWTH









Source: Capital Region Planning Board, The Capital Region Plan, Victoria, 1959.

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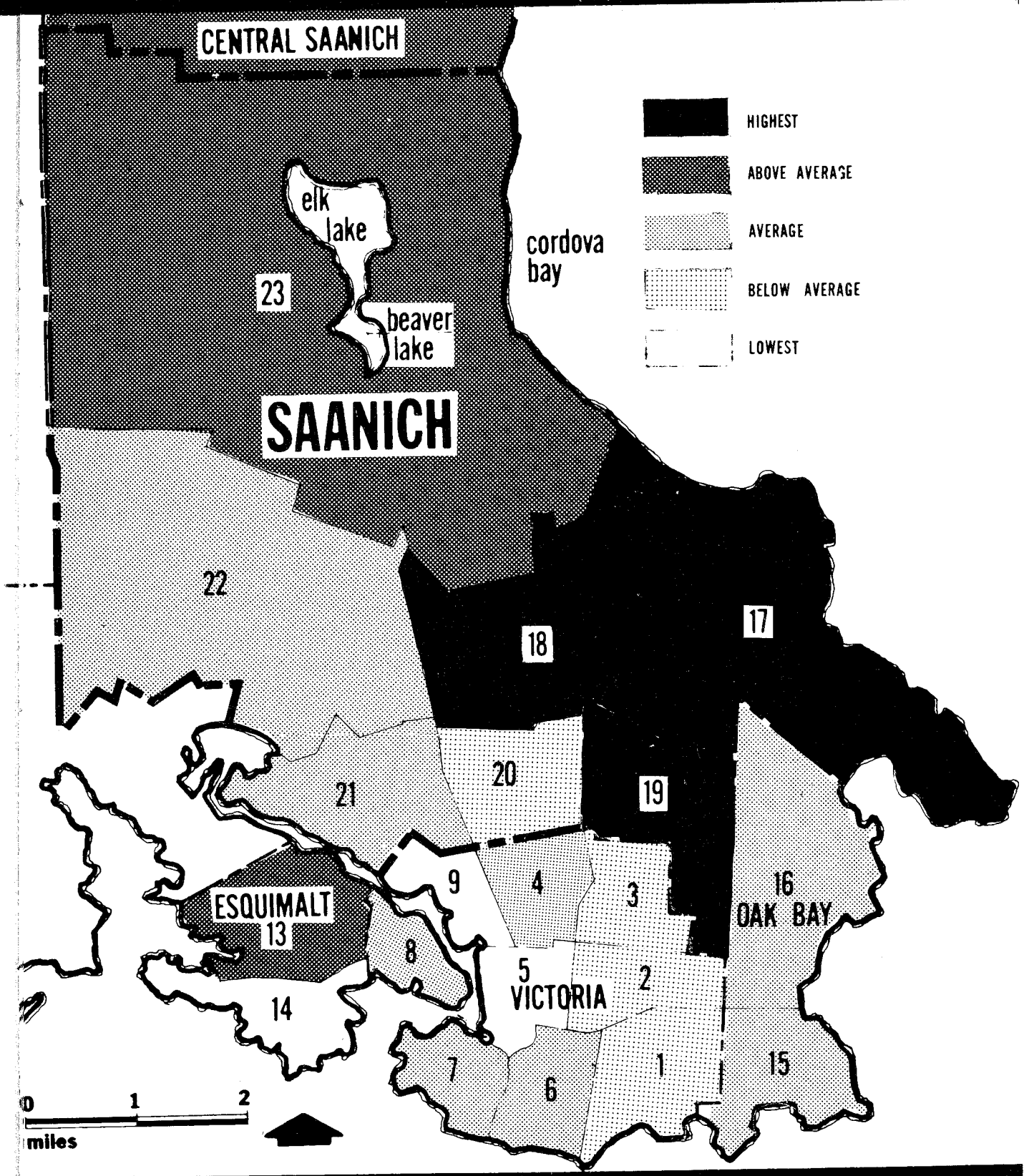
POPULATION GROWTH, 1961-1966



Source: Statistics Canada, Census Data.

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Saanich have experienced the highest population growth of the entire Region during the period 1961-66. These same three areas also experienced the highest population growth during the five years prior to 1961.

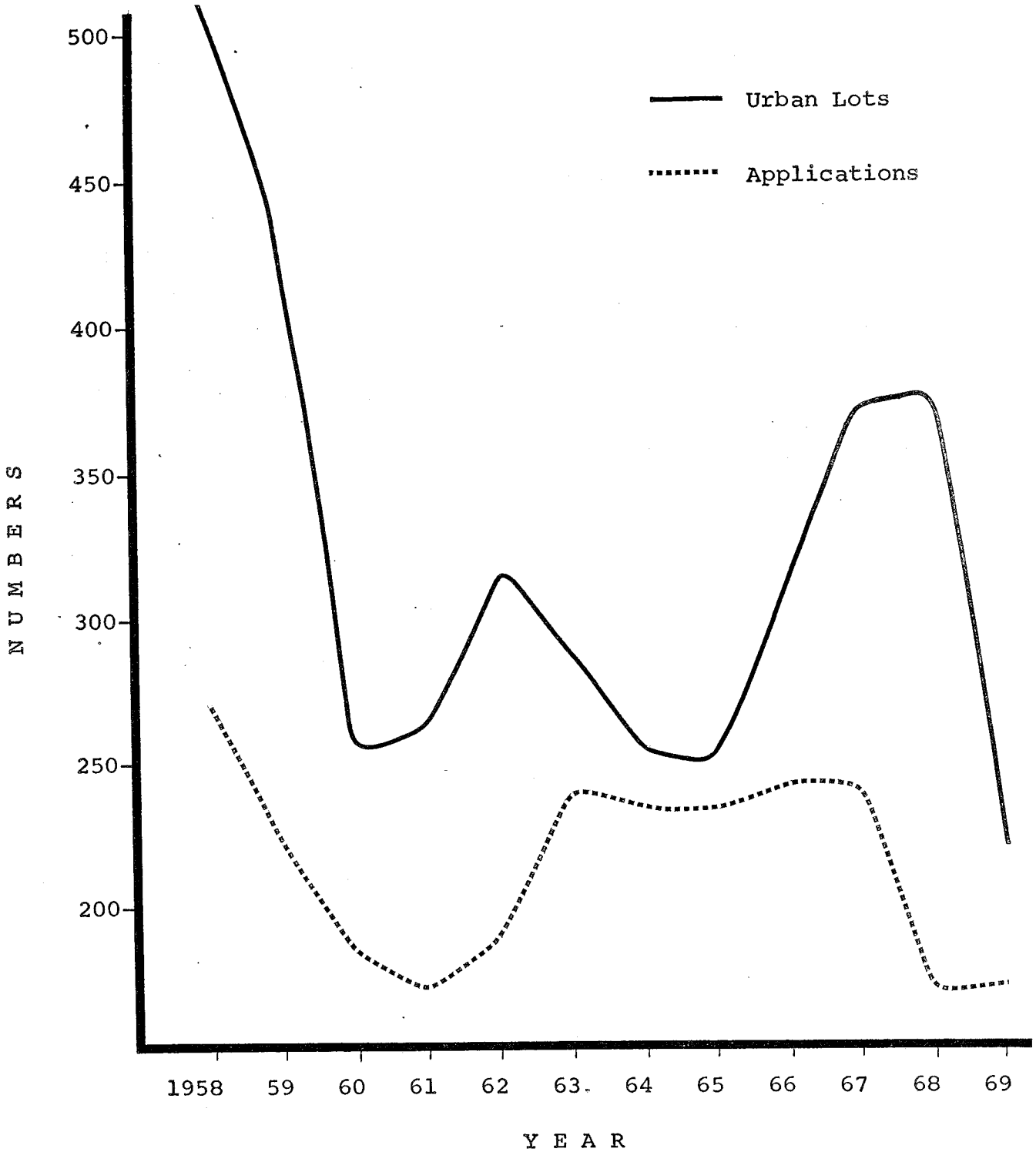
Although the Municipality of Saanich in many respects is merely an extension of the City of Victoria, it has certain characteristics worth noting. Of the entire Victoria Region, Saanich has one of the lowest percentage of households with occupancies of less than one year and has the lowest percentage of tenant occupied buildings. In the same context, Saanich has the second largest percentage of high-value occupied dwellings, and, similarly, the second highest percentage of owner-occupied dwellings of any other municipality in the Region.

Land Subdivision

In the past there has been a considerable amount of large-scale subdivision in the unserviced rural and semi-rural areas of Saanich. Recently, however, "... there has been a shift towards subdivision activity in the built-up urban area, brought about because of higher values, higher taxes, and policy refinement".[33] The most obvious example of this trend is the Gordon Head area (census tract No. 17), where the bulk of small lot development has been concentrated

Figure XIII

URBAN LOTS CREATED (Less than 1.6 acres)
AND SUBDIVISION APPLICATIONS PROCESSED
1958-1969



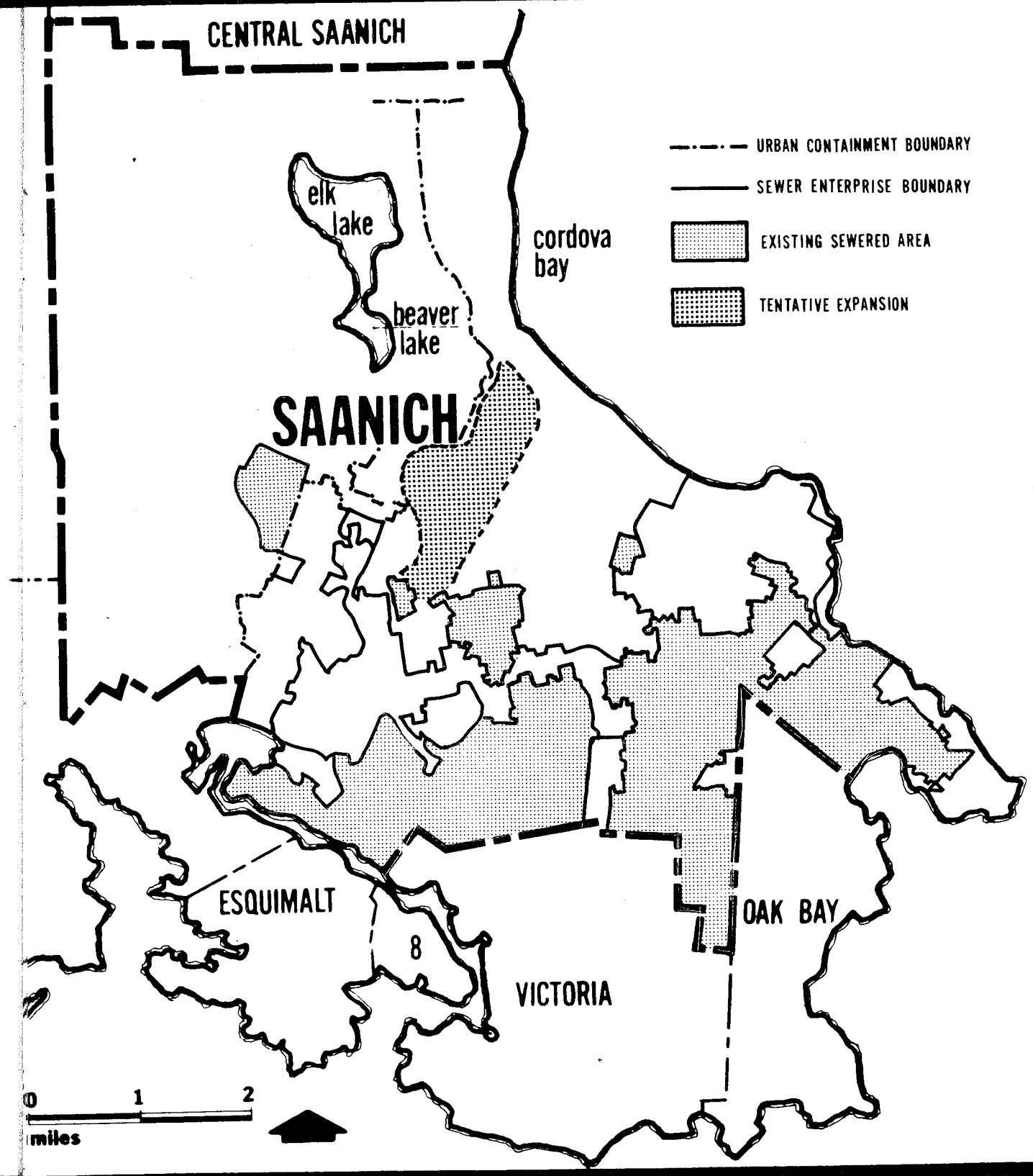
Source: Planning Department, Municipality of Saanich

for the past few years.

According to the Planning Department, Saanich has achieved a stable situation between the urban and rural areas of the Municipality.[34] The majority of small lot subdivision activity in the future has been forecast as being concentrated within the sewered areas. Growth is expected to be concentrated mainly in the fully serviced urban areas that will expand in compact stages as development permits. It is important to note that Saanich has the only large sewered area under construction in the entire Victoria Region. Figure XIV shows the existing and proposed sewerage areas in the Municipality.

A recent study forecast that the Sewer Enterprise Area could accommodate an additional 27,000 people -- the anticipated population growth for Saanich over the next 15 years.[35] However, not all the population growth will occur within this sewerage area. According to the Planning Department, the remainder of the Municipality has sufficient undeveloped lots to accommodate an additional 9,000 people if they all could be developed.[36] Furthermore, there are approximately 100 very large properties, as yet subdivided, that could absorb additional increases in population. Although the number of sewered areas being opened up in Saanich is substantial, factors such as "... high interest rates, limited consumer market

LOCATION OF SEWERED AREAS



Source: Municipality of Saanich, Planning Department.

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and an uncertain economic future..."[37] could tend to restrain development in the immediate future.

Growth rates are also strongly influenced by the development and servicing policies adopted in all parts of the Region. Until recently, the growth within the sewered urban area of Saanich has been relatively slow compared to other areas of the Region. This would suggest that "... people are seeking the short term advantage of cheaper land, but land that undoubtedly will be extremely expensive to service in the long run".[38]

With respect to land subdivision in the Municipality, the Planning Department's 1970 Annual Report concludes:

> As the trends change and growth proceeds the impact need only be felt by a limited area within Saanich. Large parts of the Municipality will simply not be required for urban development and can not be economically serviced - at least not yet. These areas will remain relatively open, however, the open space provided will be transitory. If our population continues to grow extensive areas will be required over the years for urban development, and even with large lot subdivision and minimal services, development could substantially alter the appearance of the landscape.[39]

Residential Construction

Figure XV shows the location and distribution of

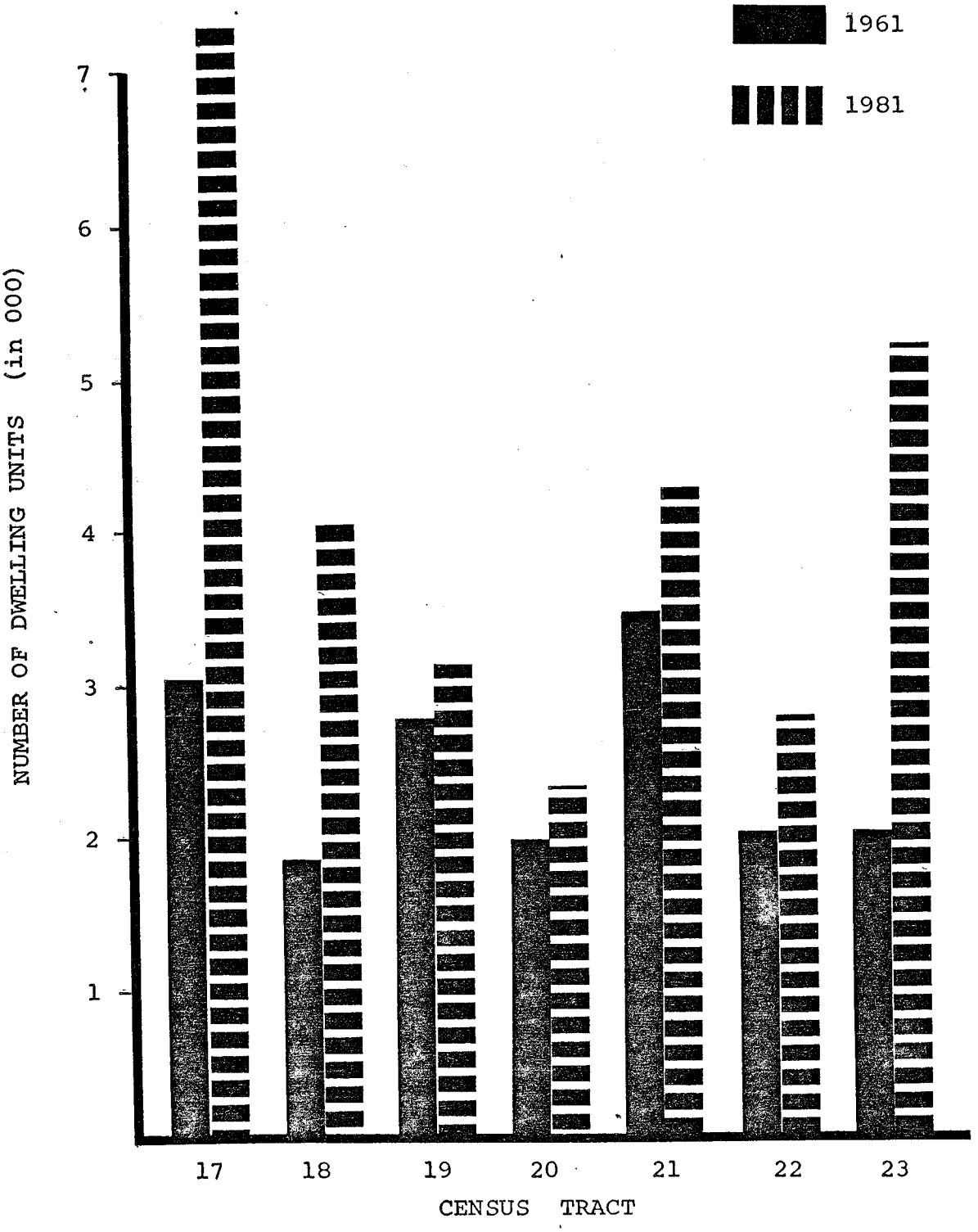
occupied dwellings by period of construction. It is apparent that the bulk of construction up until 1961 had occurred prior to the Second World War. However, recent statistics indicate the degree of construction activity particularly over the last eight or nine years. During this period there was an annual average of nearly 600 dwelling units constructed in Saanich. This figure far exceeds comparable statistics from each of the other areas within the Metropolitan Region. In fact, only recently has residential construction in Saanich been exceed by the combined total of all other municipalities and areas in the Region.[40]

As shown by Figure XVI, residential construction is forecast to increase in all areas of Saanich over the next decade, and particularly in census tracts 17, 18, and 23.

Figures XVII, showing median property values, and XVIII indicating the location of the major retail shopping areas, are included here for they constitute an important part of the description of the Study area. Appendix "B" indicates the exact location and floor space of these shopping areas.

Figure XVI

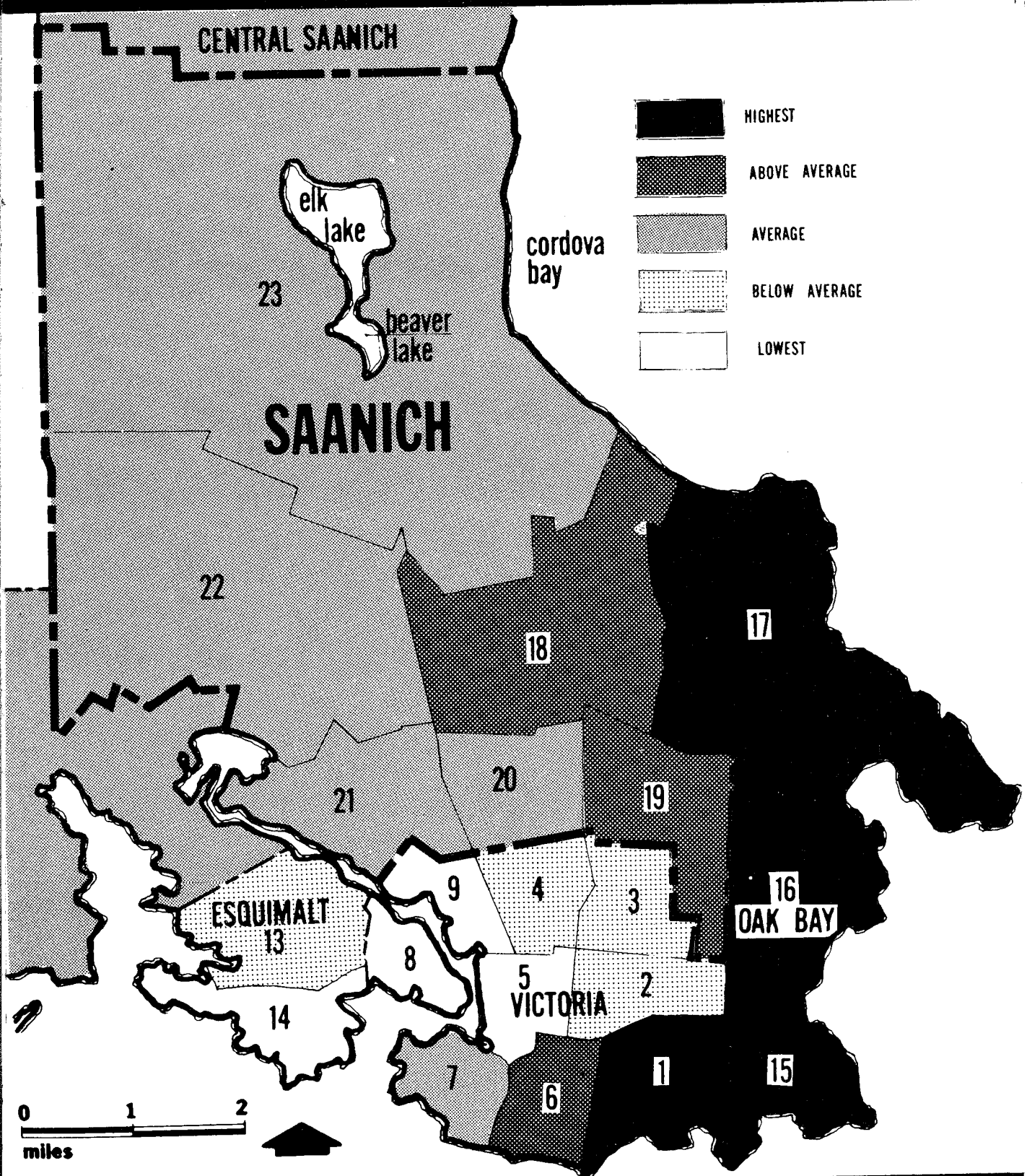
DWELLING UNITS, SAANICH, 1961 & 1981



Source: Statistics Canada, 1961 Census Data
Capital Region Planning Board

Figure XVII

SOCIO-ECONOMIC INDEX



Source: Capital Region Planning Board, Social Characteristics 1961, p. 55.

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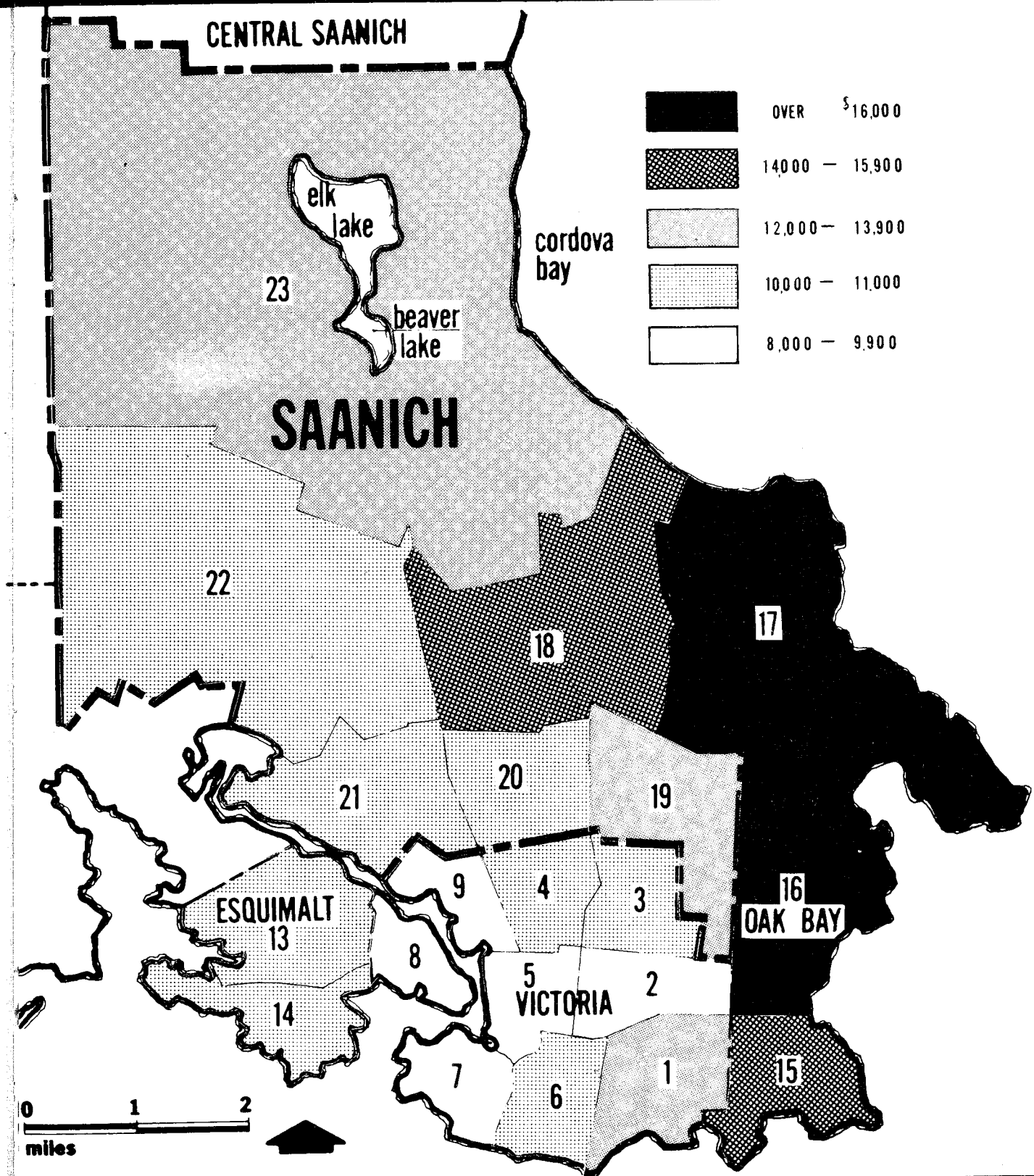
PROPERTY VALUES IN THE REGION



Source: Statistics Canada, analysis of Census Data.

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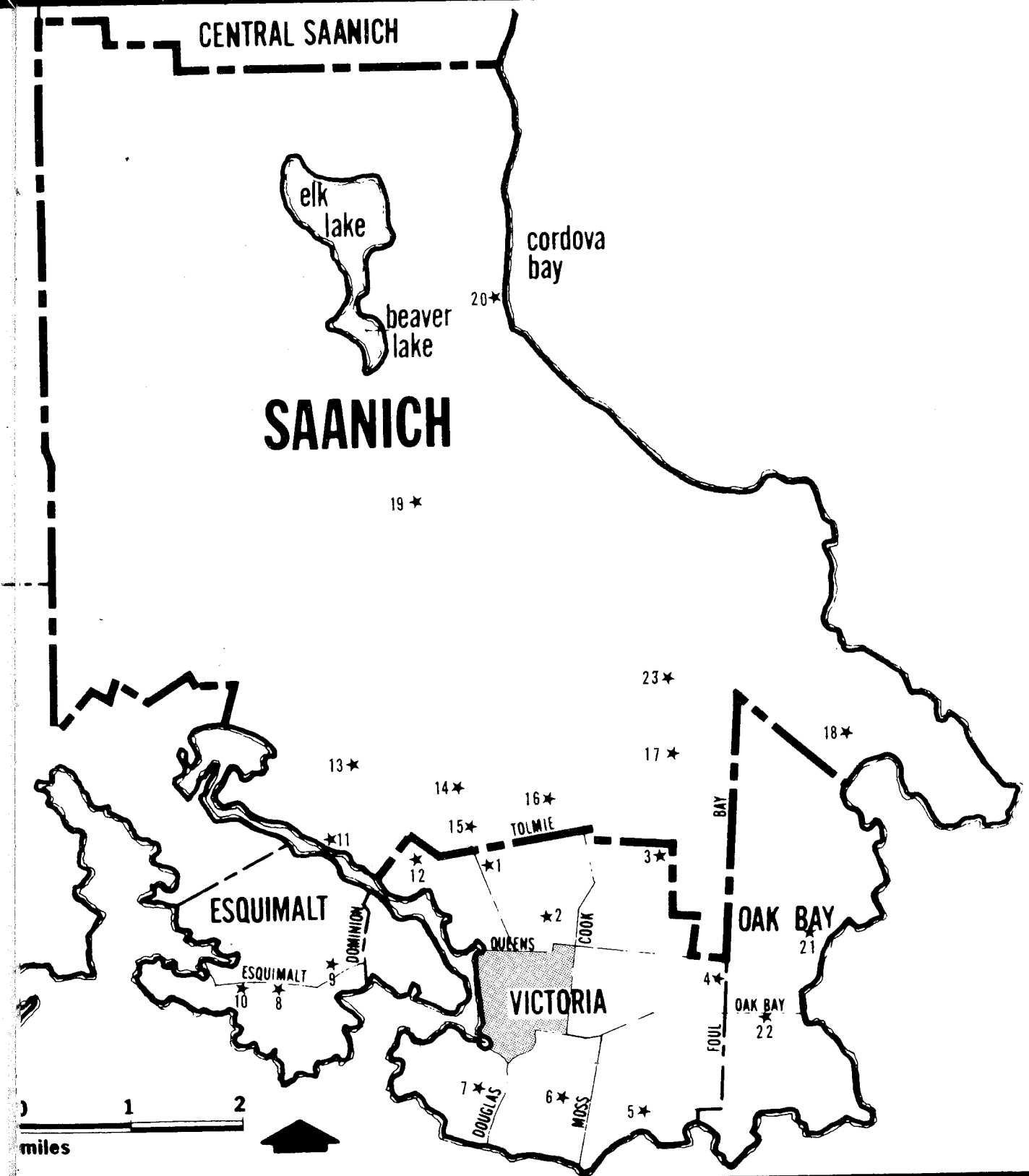
LOCATION OF MAJOR RETAIL SHOPPING AREAS



Source: Planning Department, Capital Region District.

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3. Information for this and the following section has been drawn extensively from two excellent sources: C.N. Foreward, op. cit., and, Harry Gregson, A History of Victoria 1842-1970, Victoria Observer Publishing Company, Victoria, 1970.

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5. loc. cit.

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7. ibid, p. 200-201.

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31. Harland Bartholemew, op. cit., p. 266.

32. Planning Department, Municipality of Saanich, Planning Report, 1970, p. 4.

33. ibid. p. 8.

34. ibid, p. 9 and 14.

35. ibid. p. 14.

36. Planning Department, Municipality of Saanich, Planning Report 1968/69, p. 14.

37. Planning Department, 1970, op. cit., p. 9.

38. ibid, p. 15.

39. loc. cit.

40. Planning Department, 1968/69, p. 13.

CHAPTER IV

SCOPE AND METHODOLOGY

> Studies must be impartial: the task is neither to prove that a particular policy is correct, nor to suggest that a particular objective would be desirable; this may emerge from the study, but the end must never be permitted to prejudice the careful and methodical approach to the data.[1]

OBJECTIVES OF THE STUDY

The first stage of the methodical approach to a study of urban land values is to outline precisely the questions to be investigated and resolved. This initially requires the clear formulation of the study objectives.

It has been stated that due to the nature of the real estate market "it is characteristic that the seller is inexperienced and unfamiliar not only with market prices but with the mechanics of real estate transactions".[2] In view of this statement, the primary objective of the empirical study is to measure the changes in raw land values from 1949 to 1970 in the Victoria area, and to rationalize them in terms of market behavior.

Market behavior inherently involves an activity which has been termed or labeled "land speculation". Milgram defines speculation as simply "the holding of ground out of use pending its sale at a higher price".[3] An objective of the analysis will be to establish if, and to what extent, speculation as so defined is responsible

for both the increase in the price of raw land, and the discontinuous fragmented growth pattern ("urban sprawl") of some parts of the Victoria Region, particulary in the study area -- the Municipality of Saanich. Chapter II discusses the nature of land speculation and its apparent effects on the land market.

A suggested cause of urban sprawl, and the resulting increase in raw land cost, is the independence of decisions among competitors for land use. Individual competitors have a different set of future expectations and demands for compensation. The rapid expansion of the economic base of housing has prompted many developers to respond to the demand for housing and produce a variety of discontinuous unrelated developments. These developers are often labelled speculators and many writers on the subject have been quick to blame rising land costs, premature subdivisions, and an excess of building lots as the results of speculative activity. Harvey and Clark in "The Nature and Economics of Urban Sprawl" conclude that speculation is "a motivation of the growth process and that all incremental additions to the urban fringe are speculative ventures".[4] The present research search will attempt to determine if it is the independence of placement and timing perpetuated by public policies which allows a lack of coordination in the location decision,

permitting a sprawl pattern and motivating the current speculative pattern. Public policy has definitely tended toward the single-family home as a suburban environment, and accentuated single-family development as opposed to central city multiple development or even redevelopment. In addition, most lenders supporting subdivision development demand that projects be organized into completable units which will not extend beyond a maximum of three building seasons.

Other questions pertaining to this general area will be investigated. For example, does speculative activity contribute to increased service costs of electricity, water and sewerage disposal, and paving which are constructed by the lineal foot, and which with fragmented growth are able to function only at a proportion of capacity? If the increase in lot price is attributable to the rising cost of raw land combined with increased development costs, what proportionate relationship is the increase in land costs to increased utility costs? Finally, pertaining to speculation, if land is being held off the market at a time when it is ready for development, resulting in pockets of growth, who is responsible for this action? In other words, are individuals, real estate agencies, construction companies, or other corporate developers holding land off the market in anticipation of <u>their</u> opportune moment of subdivision? These are eristic

questions, and may or may not prove to be satisfactorily answerable within the confines of this study.

Directly related to changes in raw land prices are supplementary questions concerning speculation, which it is hoped well-defined data will answer. For example, what effects has a rise in the general prices level had in increasing the price of raw land? By indexing the recorded sales of sample parcels over a twenty year period to a base year it may be possible to derive a net effect.

An additional area of analysis involves the pattern of development of vacant land in the Municipality of Saanich since 1949. Aside from determining if either a definite continuous pattern exists or a discontinuous sprawl, as previously outlined, the data could reveal whether growth has been rapid in one area and then moved to another area or, in contrast, evenly distributed. Furthermore, does development appear to peak in one year, or is there a relatively average growth rate? It will be possible to delimit the geographic location of residential settlement by census tracts and correlate the results with relevant census data.

Other questions to be resolved concern the registered ownership of vacant land. As explained later in more detail, the "Torrens System" of land registration

greatly facilitates the study of land ownership. Not only does the data distinguish between the various types of owners, but is also records the period of ownership of vacant land as well as the type of builder who improved the site.

Accessibility to the unimproved site, within the Municipality of Saanich is the final area of analysis to be investigated in the study. That is, the program will examine to what degree the value of a site in the sample area is a function of the distance from the Central Business District, and to what extent accessibility to economic activities and services is a determinant of raw land value.

In summary, the preceding questions form the framework for the collection of data and subsequent analysis. Generally, within these terms of reference, it is hoped that the collected data will "... succeed in deriving what part of the rise in the price of raw land is ascribable to the development process itself, and what part of the price increase is due to general demographic and sociological factors of urbanization".[5]

SOURCE AND METHODOLOGY

Introduction

> Data must be handled before its complexities can be wholly appreciated; there can be no complete substitute for the reality of personal experience in survey.[6]

Following identification of the study objectives and outlining the questions to be analyzed, the methodology used to assemble the information was determined. The important decision here concerned which method of analysis could be expected to yield the most effective results. The relatively inexperienced researcher discovered that in dealing with the apparently simple, but in reality complex questions of procedure, personal experience was extremely important. It was realized that no amount of subsequent manipulation or refinements in statistical analysis could overcome deficiences which are introduced during the initial states in the collection of basic data. However, preceding a detailed examination of these inputs, a description of the data sources is presented.

Data Sources

In 1911 British Columbia adopted the Torrens System of land registration, which originated by statute in 1858 by the enactment of the Real Property Act of South Australia. This system was established under government control

for registration of title to the land itself rather than simply registration of documents or deeds. (The traditional deed system requires an examination of the chain of documents produced by the vendor in order to establish that the vendor had bona fide title to the land.)

An important criteria in choosing the best method of data collection is the cost which is directly related to the length of investigation and number of data inputs required. The Torrens System requires that all titles be registered in the Land Registry Office, and thus it is possible to acquire the sale dates, transaction prices, and type of owner for sample parcels for a given time horizon. Briefly, the four main features of the Torrens System which can facilitate relatively inexpensive data collection are:

1. It is a system of provincial registration of title to land; the province, within certain limitations, guarantees the title and operates the system's machinery.

2. Transactions must all be registered against the title in the provincially operated land registry office, and they are not valid in the form of mere instruments executed by the parties as against other competing registered interests.

3. The certificate of title is intended to be a complete and accurate reflection of the result of all preceding transactions affecting the property.

4. Each parcel of land is recorded in the register at the land registry office as a unit of property. The land is surveyed and accurate boundary and parcel descriptions are available that facilitate the recording of land dispositions.[7]

In addition to the land registry files access to the tax assessment rolls was of equal importance and benefit in compiling the sample. The Saanich assessment rolls identify the values of land and improvements separately and also provide the date of improvement. This made it possible to separate raw land sales from improved property sales ans also identify minimum improvements which would be demolished prior to development. The assessment cards also chronologically listed the sales for each sample parcel from 1949-1970 adjacent to the corresponding title number and in most cases it was unnecessary to search the title. In summary, the existence of the Torrens System and access to the assessment rolls made the study financially feasible. However, it should be noted that there were some occasions when it was impossible to trace a subdivision, rejoining, or redividing of individual parcels, even by cross referencing the land registry document number and corresponding assessment roll identity number.

Compilation of the Data Sheet

Preceding the discussion of the sampling technique and analysis and interpretation of the collected data, a detailed discussion of the selected quantifiable determinants of raw land value is presented. These determinants are derived for a sample of 2638 properties in the Municipality of Saanich, randomly chosen from a legal map by the extension of lines from a chosen point to the municipal boundaries. These sampling lines were chosen following an analysis of demographic and land use data in order to establish the most appropriate areas for the study. The areas would necessarily reflect the greatest concentrations of new residential growth during the study period. Every property in a legal block through which a line passed was included in the sample regardless of its present zoning classification. The Appendix to this chapter contains a copy of the sample data sheet.

The initial procedure was to identify from the map the legal description of each property. Obviously, at this stage it was impossible to determine whether the parcel was vacant or improved, and consequently, all defined properties were listed. In order to identify the properties in the assessment cards it was necessary to record the block, lot and plan number. The enumeration

district and census tract for each sample property was also recorded for the subsequent purpose of comparing geographical areas with corresponding census information. All zoning classifications were listed for each property. Milgram proposes in her land study of Philadelphia that, "since use to which land can be put is a major determinant of potential return the expected price of a parcel would reflect its zoning category at the time of sale".[8] It is hoped that this presumed effect of zoning can be isolated in the analysis.

Following zoning, the lot size of each parcel was recorded on the data sheet in an attempt to ascertain the effect on price of square footage and lot frontage. It was possible to obtain both acreage for larger parcels and square footage for subdivided lots. No attempt will be made in the study to compare acreage values with changes in lot values but these will be considered as two separate categories.

The next input to the program was the date of development. Since each property in a block through which a sampling line passed was recorded, and it was required that each property be located in the assessment cards to determine if it was improved, it was decided to record both raw land sales and improved property sales. The development date is then used to identify current vacant

parcels and vacancy prior to development for improved properties.

From appropriate planning maps an entry was made to the data sheet outlining the services provided and date of installation including both public utilities and land improvements to the vacant site. The purpose of this entry was to determine which facilities, if any, were already in place when the homebuilder or developer purchased the land. For example, development often precedes the installation of a utility, such as the use of septic tanks until a city sewerage system is installed, and this increases the minimum lot size allowable which will affect the lot price.

The seventh variable in the data collection involved accessibility or travel time to the CBD and other services and economic activities, such as schools and shopping. Citing Milgram again, she has stated, "a priori it was expected that the development and price per acre would vary according to location and access to facilities....".[9]

Assuming contemporary values of individual transportation will be retained, decentralization of people is not only inevitable but warranted. Combined with transportation values is the change in type of demand for spatial

requirements. It has been estimated that a century ago a population of one thousand required approximately ten acres and today the requirements are one to two hundred acres. Therefore, it could be assumed that family size and income affect space consumption preferences and consequently land prices. If higher incomes lead to more intensive bidding for raw land causing higher prices and a sparser residential location, accessibility to necessary or desirable activities will also affect values.

To estimate travel times from traffic flow maps it was necessary to accurately identify the main streets bisecting the sample area, keeping in mind that rays from the same origin do not provide the same accessibility to the CBD. Also, it was important to denote the growth pattern of the main arteries -- that is, the changes in main transportation routes, if any, from 1949-1970, and to attempt to identify the north-south or east-west traffic systems. Since the data will be related to census tract the geographic location within each tract is also important. Not only will parcels within an enumeration district have different travel times to the CBD, due to relative distances from the main arteries, but also different commuting times to schools, shopping, and recreational areas within the individual census tract.

The final section of information for the data sheet

relates to the actual transactions of sample properties. For each property in the sample the transaction date (month/year), title number, transaction type, type of owner, and sales price was recorded for the 1949-1970 time horizon. The author realizes there could be some error in using the sales price data as pointed out by Brigham in his study for the Rand Corporation. For example, "public records are susceptible to large deviations from full cash value ... as there are a large number of sales by fathers-in-law to sons-in-law, builders to their construction firms, and so forth, and these 'sweetheart sales' may be at artificially high or low prices".[10] However, using the land registry system and assessment rolls it was possible to eliminate the majority of non-arm's length transactions by referring to the document number corresponding to sales price and by referring to the names of the registered owners. It is thought the remainder of such sales represent a minimal error, and that defects in data collection with respect to sales price will not significantly distort the results.

Under the column labelled 'Transaction Type' on the data sheet, a simple differentiation was made between a raw land rate and a sale of improved property. The type of owner was listed either as a private individual, real estate agent, holding company, society or corporation.

The purpose of this grouping was to attempt to identify the types of owners holding vacant land and possibly relate knowledge of the land market in Saanich to the transaction price. In other words, it is possible that certain owner characteristics, such as professionals versus non-professionals and non-building companies, dictate to some degree the holding period prior to development and consequently the price of raw land. However, when correlating the type of owner to other sale characteristics some caution is warranted, as to the reliability of the results, because it was often difficult to determine the owner 'type' if not specifically stated as a company or agent, because frequently a registered individual represents corporate interests.

Using the date of sale and sales price of arm's length transactions, and combining this data with the preceding inputs, it was anticipated that answers to a number of different questions re raw land market will be resolved. These questions involve the type and number of transactions, price trends, land turnover rates, holding time, and the pattern of development.

With respect to the type and number of transactions, the total number of lots transacted from 1949-1970 will be calculated in addition to the uniformity of sales, by recording the sales for each individual year to determine

a trend in land sales. The number of lots not involved in a sale will also be tabulated and classified by size in order to determine whether smaller parcels were bought and sold more frequently compared to larger parcels.

The price trend will be determined by measuring the average price of all raw land transactions over the time period and indexing this price to a base year (1949). This will provide the annual rate of increase and it will then be possible to determine if this rate of increase is constant as well as giving an indication as to the profitability of holding land in the study area.

The average turnover rate relates the total number of land sales to the total number of lots. For example, if there are 600 lots and 800 sales (1949-1970), the average turnover would be 1.3 times. This figure could then be compared to the uniformity of sales, as defined earlier. With respect to raw land, a more beneficial ratio would be to relate the vacant number of lots unsold in a given year to the total of new subdivided lots to determine the effects of excess building lots on market values. Besides average turnover, it will be possible to calculate if the number of transactions steadily increased as lots approached development, as well as the total number of parcels that were bought by other than the ultimate developer. This combines with the final area of analysis which concerns

the holding time. Questions as to the median holding time before development, and the type of developer, will be answered. In addition, the percentage of land developed that was acquired in the year of development as well as in successive preceding years will be analyzed. It is anticipated this investigation will reveal if there is a causal relationship between transactions and the development process.

This concludes the examination of the selected variables from the data sheet and their relationship to the ensuing analysis. A flexible program was designed to apply the data to diverse situations applicable to different enumeration districts in different time periods. All the values selected were quantifiable but naturally there will be some error due to a certain degree of subjectiveness of decision by the researcher and the non-availability of information in certain cases. However, regardless of these two negative aspects to the approach, the data should produce usable results and exclude subjects margined to the central objective of investigating the nature of price changes in the Municipality of Saanich.

Sampling Procedure

Random sampling involves selection from some form of sample frame, and

> those most frequently used are lists, registers, and maps.... The essential requirements are that the frame must cover the whole population, must be complete, avoid duplication, be accurate and up-to-date and be accessible and available for use by the sampler.[11]

The defined area for the land study is the Municipality of Saanich as outlined by Map #1. This area is composed approximately of 25,000 legally defined parcels, for which there is assessment information available. Since the main objective of the study is to investigate the price changes of raw land in this urbanizing area since 1949, it was decided that the sampling lines should emanate from a common point in the established built-up area and extend to the municipal boundaries.

The sampling technique best suited to selecting a proportion of the total population was to extend three lines through selected areas, primarily either developed in the study period or which still remain undeveloped. Derived from a legal plan map, each property in every square block through which a sampling line passed represents one observation unit for which the preceding outlined data was collected. The total number of properties composing the representative sample is 2,638 or approximately 13 percent of the total number of properties in the Municipality.

Table 2

NUMBER OF SEPARATE TAXABLE UNITS, SAANICH, 1971[1]

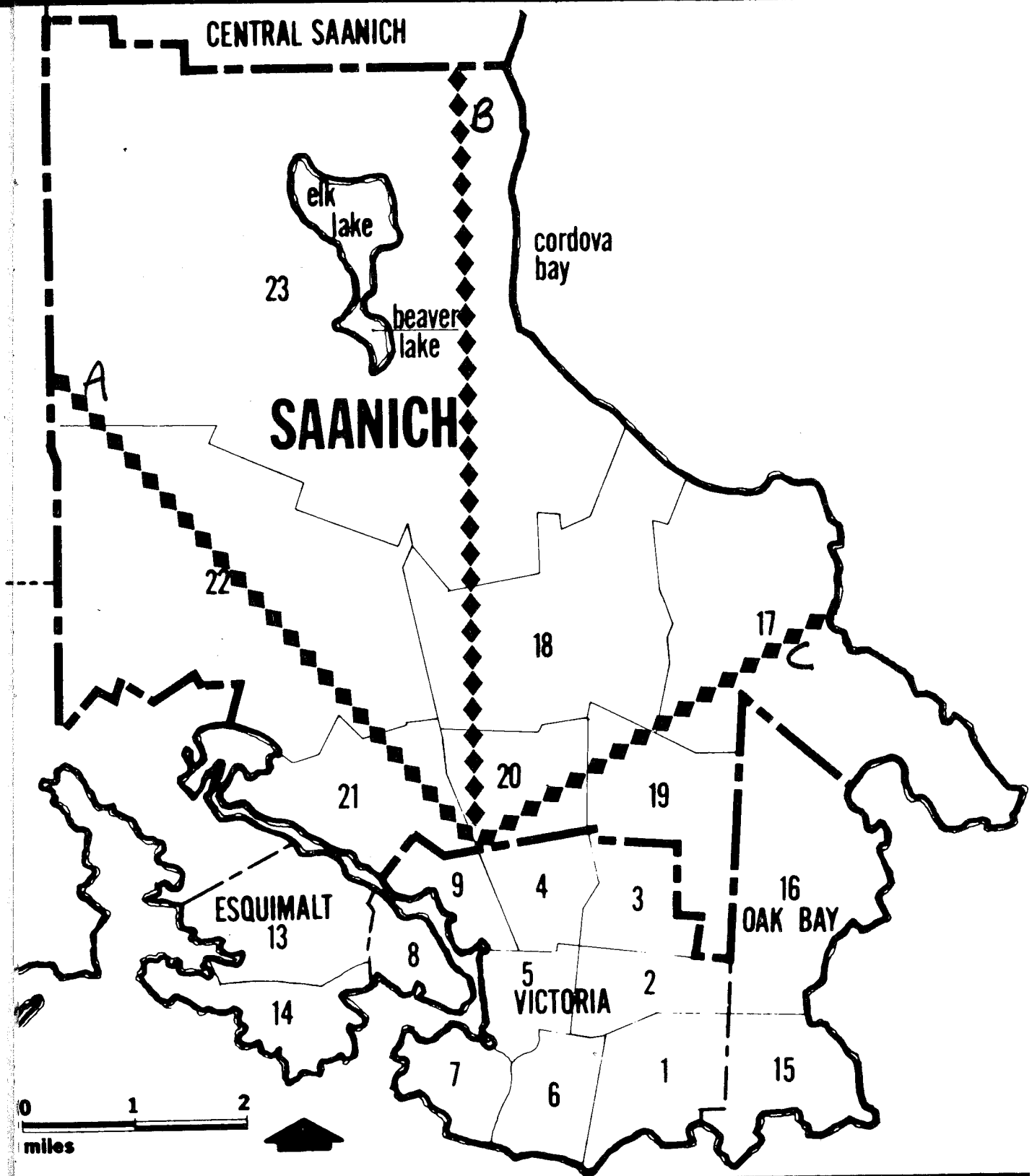
	Folio Count		
	Vacant	Improved	
Residential	1,978	17,014	
Commercial	45	286	
Industrial	30	20	
Classified Farm	80	172	
Acreage	268	821	
Utilities (B.C. Hydro and Other)	48	14	
TOTAL	2,449	18,327	20,776

[1]Based on information for the first quarter of 1971.

Source: "Preliminary 1971 Statement of Net Taxable Assessed Value of Real Property by Types," District of Saanich

The location of the three sampling lines is shown by Figure XX on page 151. Lines A, B, and C are comprised of 533, 1109 and 996 individual properties respectively. The lines emanate from the common origin at the intersection of Tolmie and Douglas Streets on the Victoria and Saanich Municipal boundary, and are approximately 3.95, 6.87 and 5.87 miles in length respectively.

LOCATION OF SAMPLE LINES 'A', 'B' AND 'C'



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CHAPTER V

ANALYSIS OF DATA

INTRODUCTION

In order to achieve the objectives of the study, it was necessary to formulate an analysis procedure which would recreate the market behavior of raw land sales during the study period. Accordingly, the data has been compiled into comparable categories for the individual sample areas and, where possible, the outputs for the three areas have been aggregated, in an attempt to rationalize the general market behavior of land values within the limits of the study area. This chapter will analyze the assembled data under the following sections.

- Sales and Development of Raw Land
- Sale Price Trends of Raw Land
- Development Characteristics
- Sales by Zoning Classification
- Sale Prices as a Function of Distance from Sample Line Origins

Unfortunately, there are some unavoidable deficiencies present in some aspects of the data, as a result of either time constraint on data collection or simply the nonavailability of the required information at the source. Although a sales history, prior to development, could be readily obtained for most properties, it was not possible to trace the actual subdivision process for the acreage properties. In many respects this represents a significant

deficiency in the data, and precludes an analysis of the development process in the study area which could have been most revealing. Another element in the data collection that could not be obtained was information as to when services were extended to each of the sample properties. Had this data been available, the effect on land values of providing services could have been investigated. Due to the nature of the assessment cards, from which the majority of the data was obtained, it was also impossible to establish beyond all doubt the type of owner of each property for every sale and resale, and thus an evaluation of possible developer characteristics has not been included. For almost half of the properties sampled, there was no available information with respect to the owner or developer-type. The majority of the remaining properties appear to have been sold and/or developed by private individuals rather than by real estate or development companies. This would indicate that a significant number of properties were developed by individual owners, probably soon after services were extended. More complete information might have confirmed this suspicion.

The end result of these deficiencies in the sample data does not significantly alter the original study objectives, but merely necessitates a slight modification in the scope of the

study.

A statement concerning the graphs appearing in this chapter is appropriate at this point. The corresponding supporting data for these graphs is shown in tabular form in Appendix "D". In many instances, the graphs have been developed from this data by using a three year moving average. The general effect of a moving average is to smooth the data by averaging out excessive fluctuations. In other words, the averaging process tends to dampen the short-term variations. It is felt that the use of a moving average is justified in the present study, because the overall trend produced by the data is more important than information for individual years in the sample period.

DISTRIBUTION OF PROPERTIES SOLD AND DEVELOPED

The information obtained for the second property type -- subdivided lots, in units of 100 square feet -- provides an adequate representative sample as a basis for establishing the sales characteristics of lots since 1949. Table 3 illustrates the breakdown of recorded sales of undeveloped lots and the respective turnover rates for the three areas sampled. In order to be viewed objectively, these figures should be evaluated in the context of the amount of development of unimproved lots in the three areas.

Figures XXI, XXII & XXIII show the distribution of lots sold and developed over the twenty year study period for lines A,B and C respectively. Lines A and B are similar in that at no time during this period have there been more lots developed than were sold. In fact, for Sample 'A' there were over twice as many lots sold as were developed; the corresponding figure for B is almost one and one-half times as many sold as developed. Thus, although Table indicates a relatively low annual average turnover rate of about 3.25 per cent -- particularly with respect to the current 7 or 8 per cent turnover rate for single family houses -- which, on the surface might suggest a "tight" market with owners holding onto their undeveloped land, Figures XXI & XXII reveal that in each of the past 20 years there was in fact an adequate number of lots being made

Table 3

TURNOVER RATES FOR UNIMPROVED LOTS

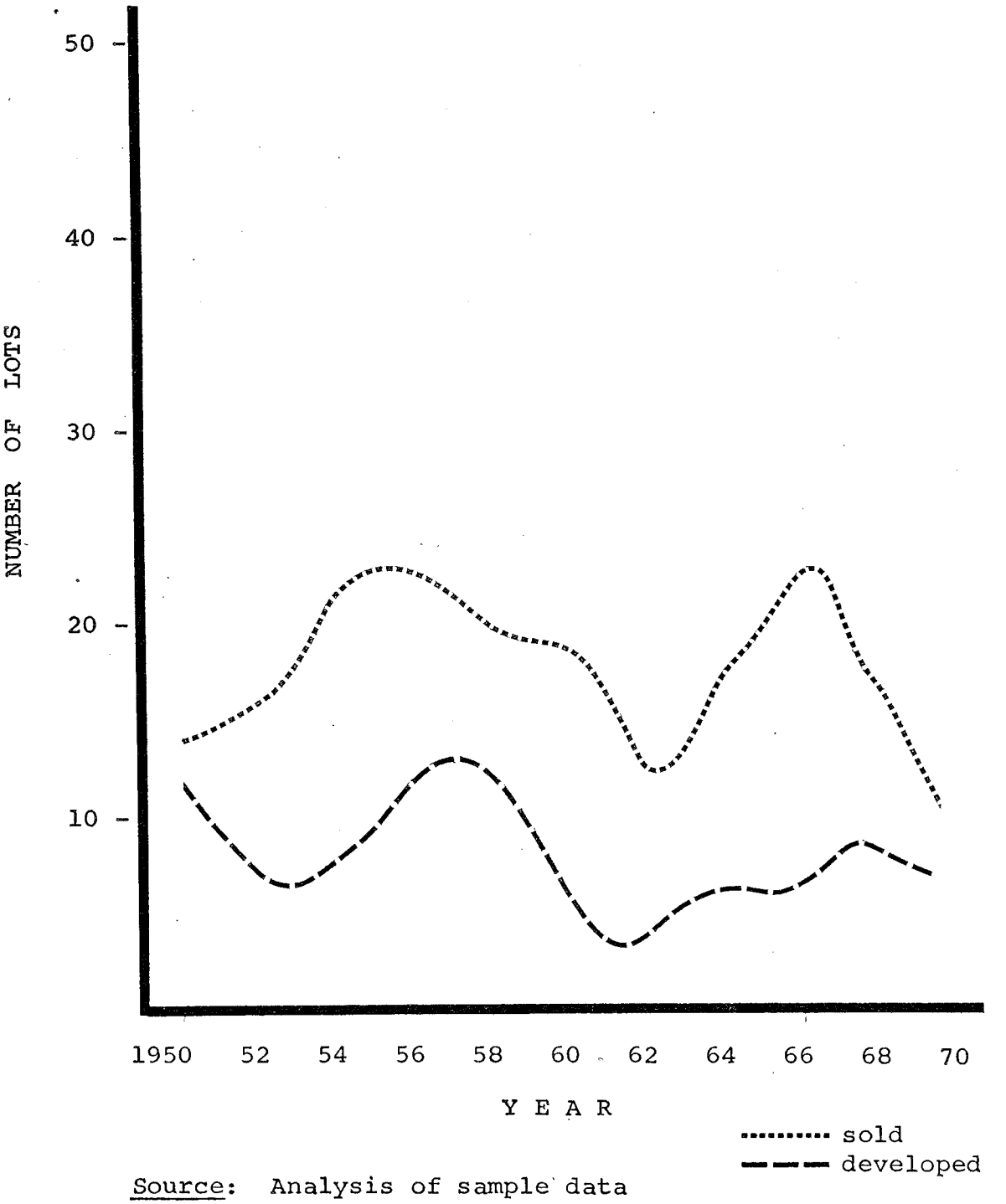
Sample Area	Total Number of Lots	Number Developed	Number Sold	Sample Period Turn-over Rate	Average Annual Turn-over Rate
A	492	167	363	74%	3.7 %
B	947	448	628	66	3.3
C	944	651	565	60	3.0
TOTAL	2,383	1,266	1,556	65%	3.25%

Source: Analysis of sample data

Figure XXI

DISTRIBUTION OF LOTS SOLD AND DEVELOPED

(Sample Area 'A')

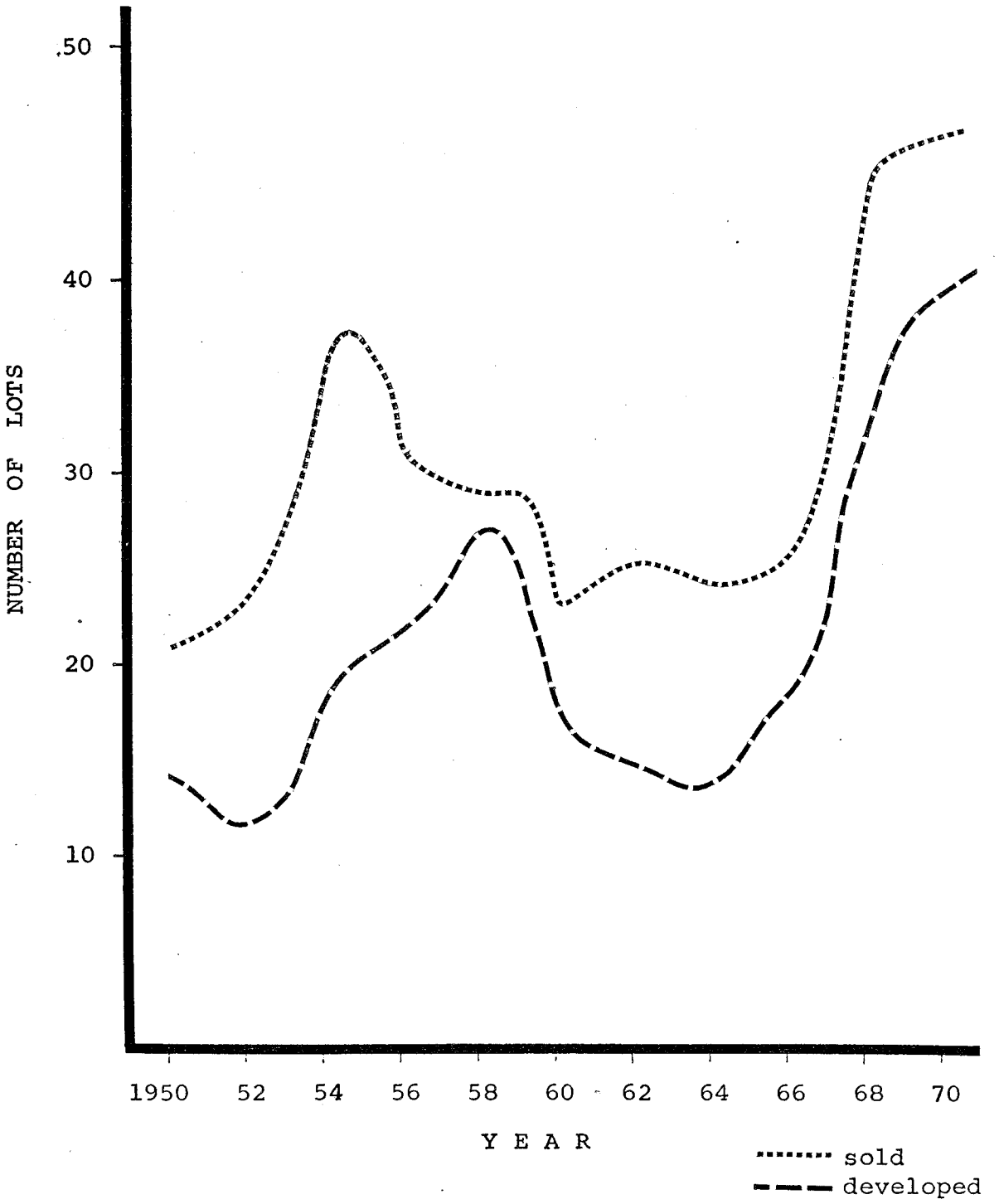


Source: Analysis of sample data

Figure XXII

DISTRIBUTION OF LOTS SOLD AND DEVELOPED

(Sample Area 'B')

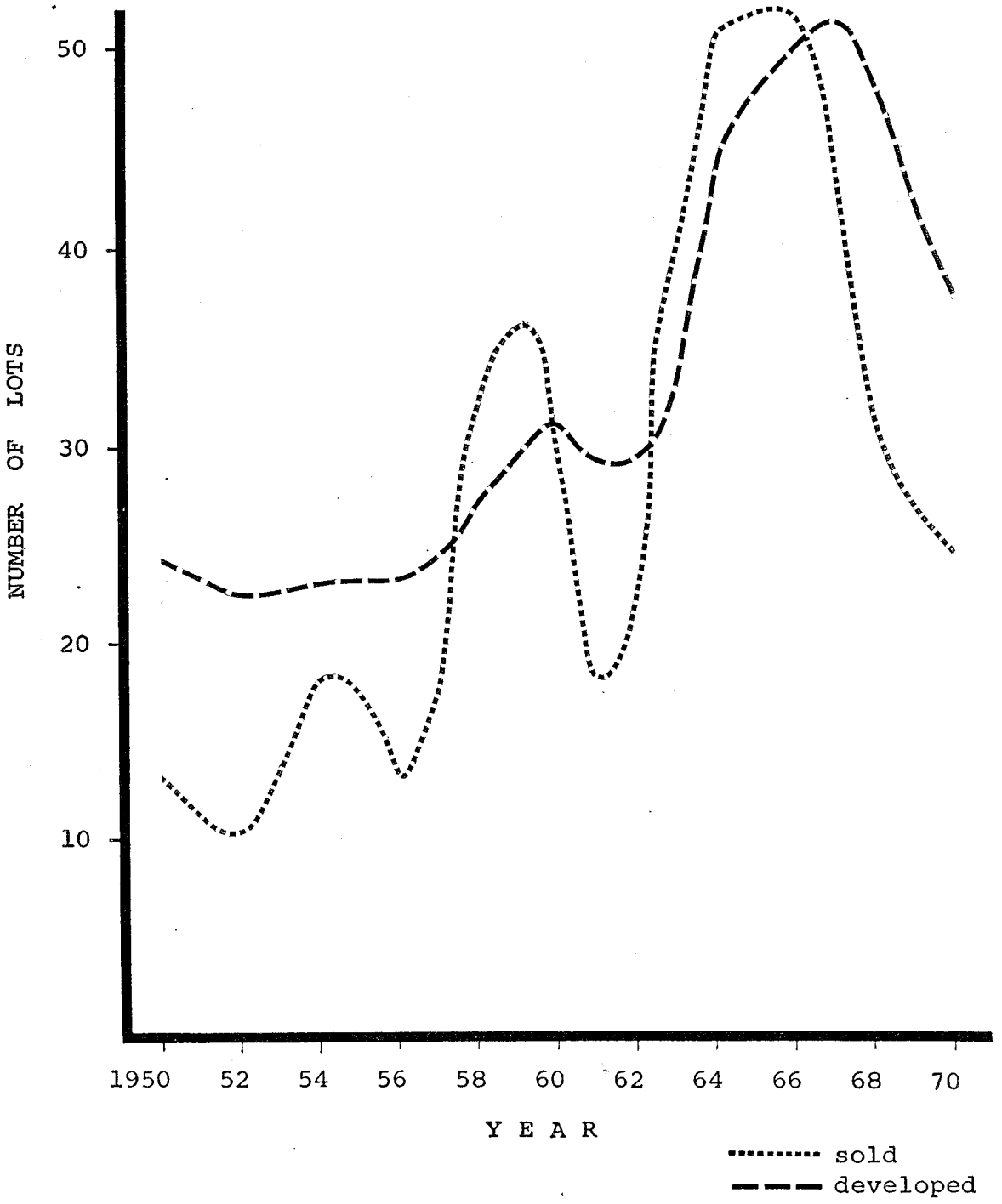


Source: Analysis of sample data

Figure XXIII

DISTRIBUTION OF LOTS SOLD AND DEVELOPED

(Sample Area 'C')



Source: Analysis of sample data

available in Sample Areas 'A' and 'B'.

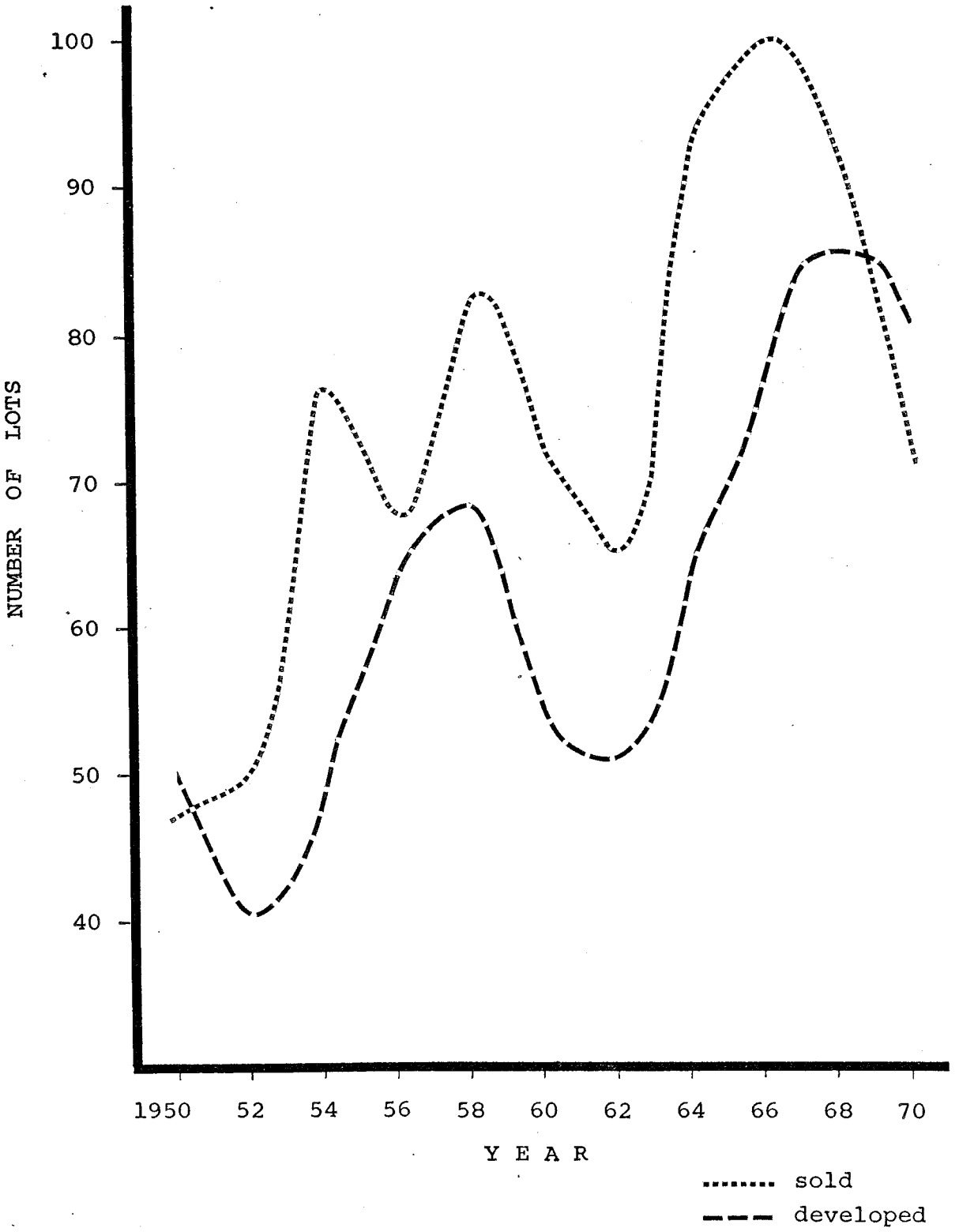
As will be evident throughout this analysis results from Sample Line 'C', which runs through an almost completely built-up area, often differ considerably from those from Lines 'A' and 'B'. Even in this instance, however, Figure XXIII does not indicate a general trend of undeveloped lots being withheld from the market, although there are periods evident when this might have been true.

As is clearly evident in Figure XXIII amount of development appears to follow the degree of sales activity very closely, but with an approximate one year time lag. Total number of sales reached a peak in 1959 in Sample Area 'C', while the number of developed lots peaked in 1960. Similar results are discernable following the 1961 sales trough and the 1966 sales peak. This type of movement is to be expected -- development must necessarily lag behind sales of unimproved lots because it responds slower to changing market conditions -- and the same effect can be identified in Figures XXI and XXII.

Sample Line 'C' indicates a relatively strong growth pattern -- at least until recent years -- in the number of lots developed, with the peak year of development being 1967. The number of unimproved lots sold traces an erratic, widely ranging line on the same graph, with relatively

Figure XXIV

DISTRIBUTION OF LOTS
SOLD AND DEVELOPED
(Sample Areas 'A' 'B' and 'C')



Source: Analysis of sample data

wide-ranging peaks and troughs. Based on the general development paatern in this area, it would be reasonable in the future to expect a continuing downward trend in both sales and development activity. In Area 'B' the upward trend should continue, while Sample Area 'A' has probably reached its lowest level of activity and an upward trend could be expected to materialize in the near future.

Figure XXIV is a summary graph incorporating data on lot sales for the entire sample area.

The sales and development trends for acreage property in the Sample Areas have also been determined. Table 4 shows the breakdown of the number of properties developed during the sample period, the number of recorded sales of undeveloped acreage property and the respective turnover rates for the three areas sampled.

Figures XXV, XXVI & XXVII show the actual distribution of lots sold and developed over the twenty-year study period for Sample Lines A, B, and C respectively. Line A is unique inasmuch as it is the only area sampled that consistently indicated a greater number of parcels sold in each year than were developed. In this respect it is similar to the information received from lot sales and development in the same sample area. In fact, earlier comments concerning the somewhat misleading low turnover rates apply

Table 4

TURNOVER RATES FOR ACREAGE PROPERTY

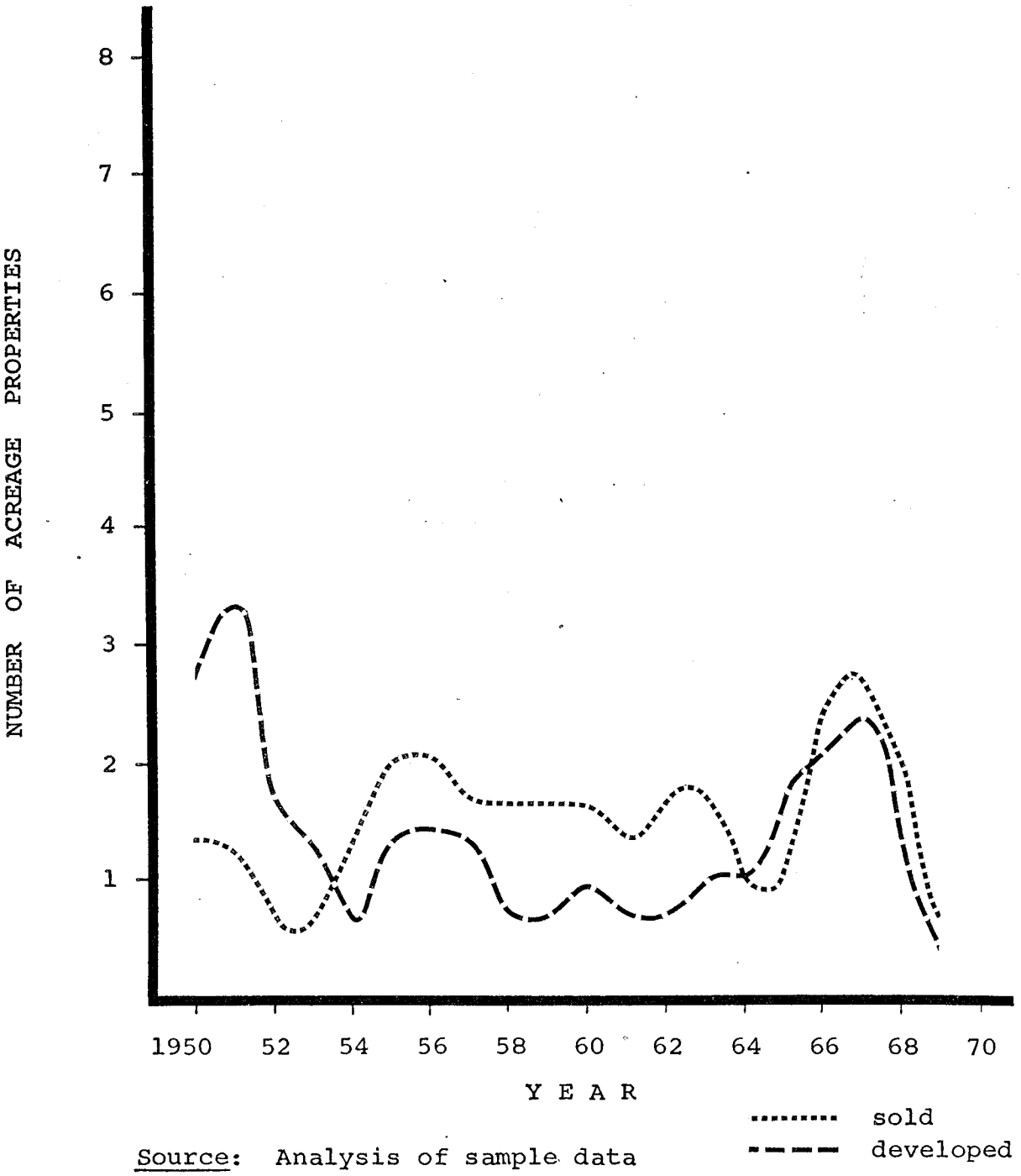
Sample Area	Total Number of Properties	Number Developed	Number Sold	Sample Period Turn-over Rate	Average Annual Turn-over Rate
A	41	18	40	98%	4.9%
B	162	82	91	56%	2.8%
C	52	29	31	60%	3.0%
TOTAL	255	129	162	64%	3.2%

Source: Analysis of sample data

Figure XXV

DISTRIBUTION OF ACREAGE PROPERTIES

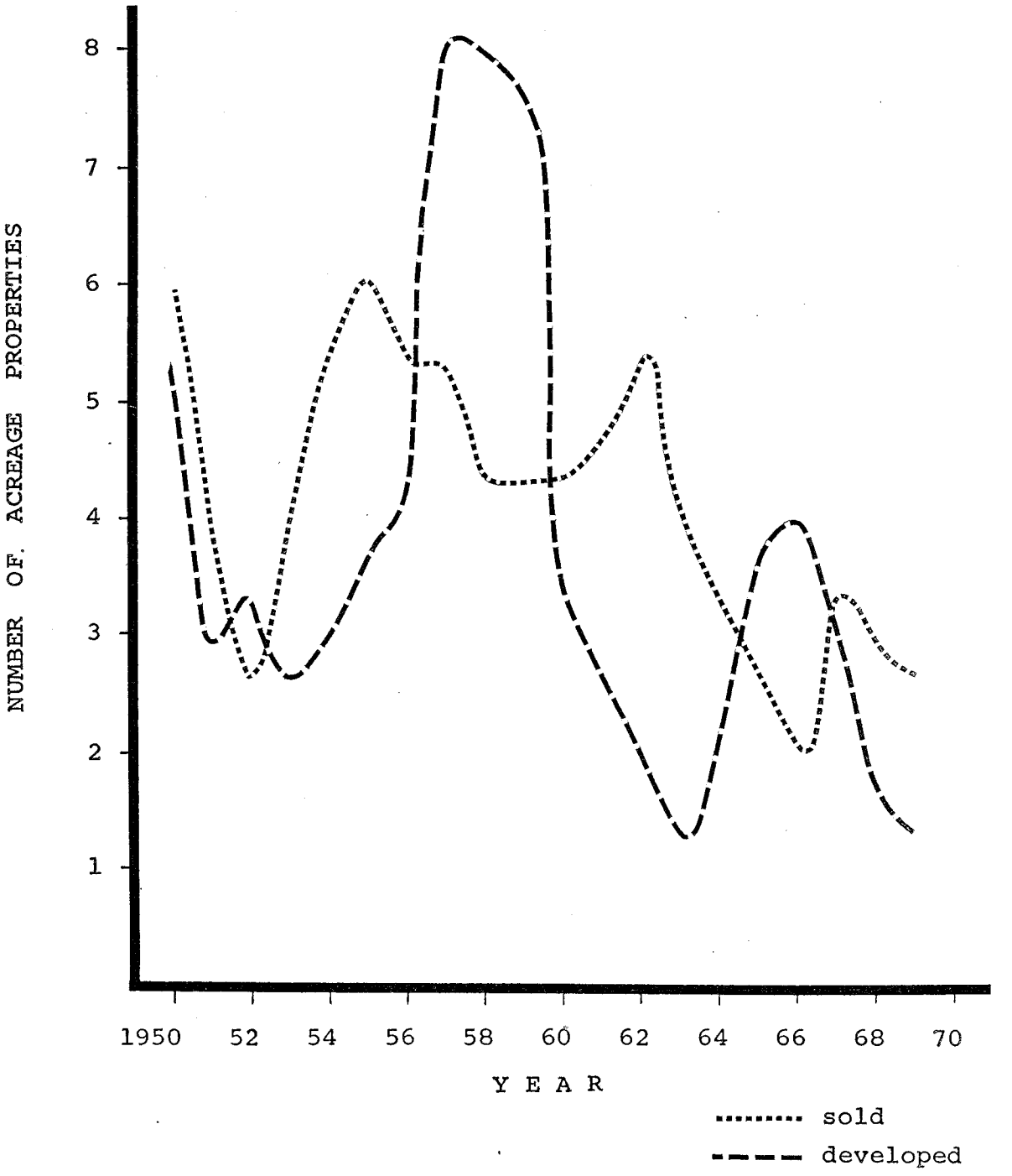
SOLD AND DEVELOPED (Sample Area 'A')



Source: Analysis of sample data

Figure XXVI

DISTRIBUTION OF ACREAGE PROPERTIES
SOLD AND DEVELOPED (Sample Area 'B')

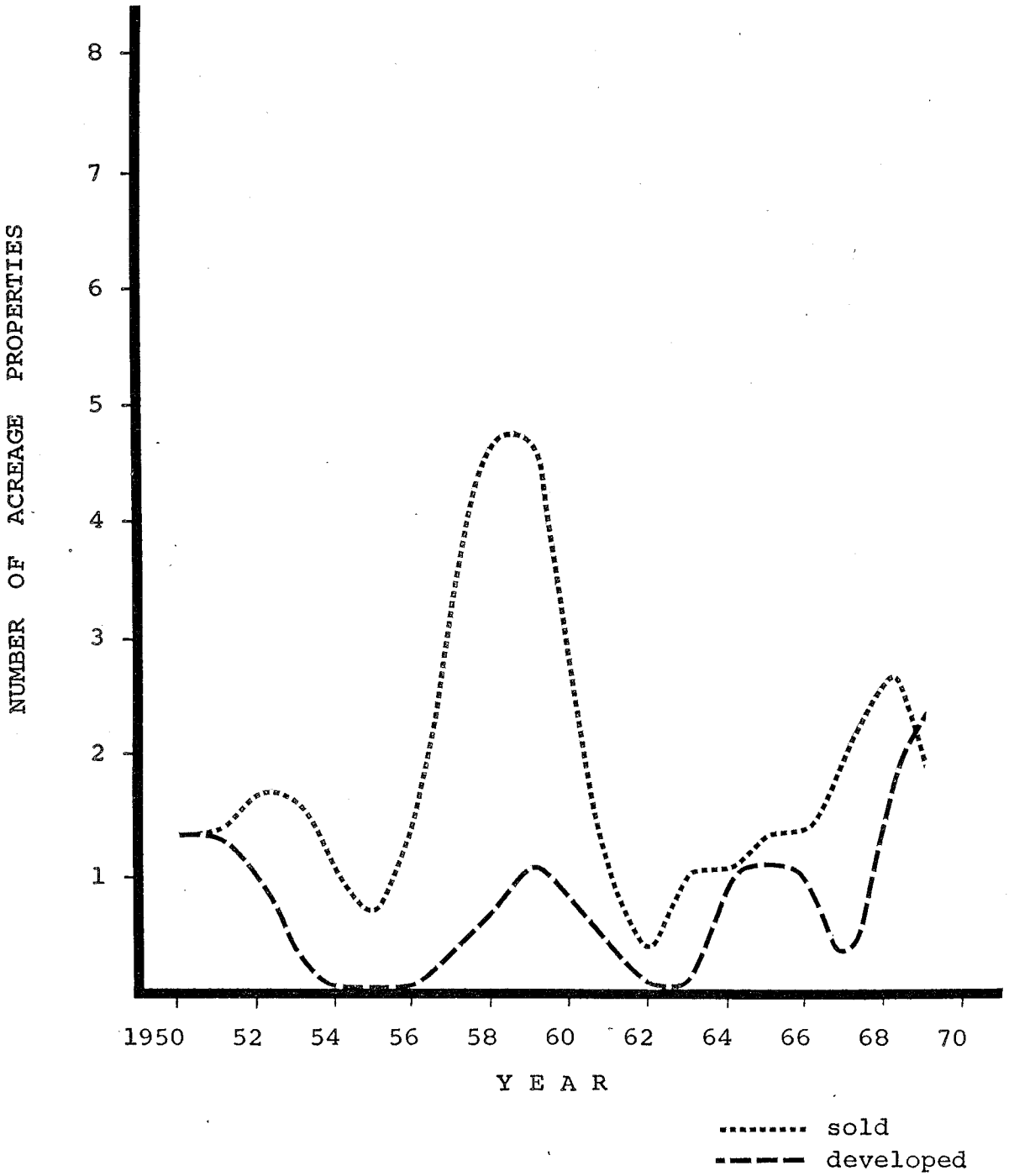


Source: Analysis of sample data

Figure XXVII

DISTRIBUTION OF ACREAGE PROPERTIES

SOLD AND DEVELOPED (Sample Area 'C')



Source: Analysis of sample data

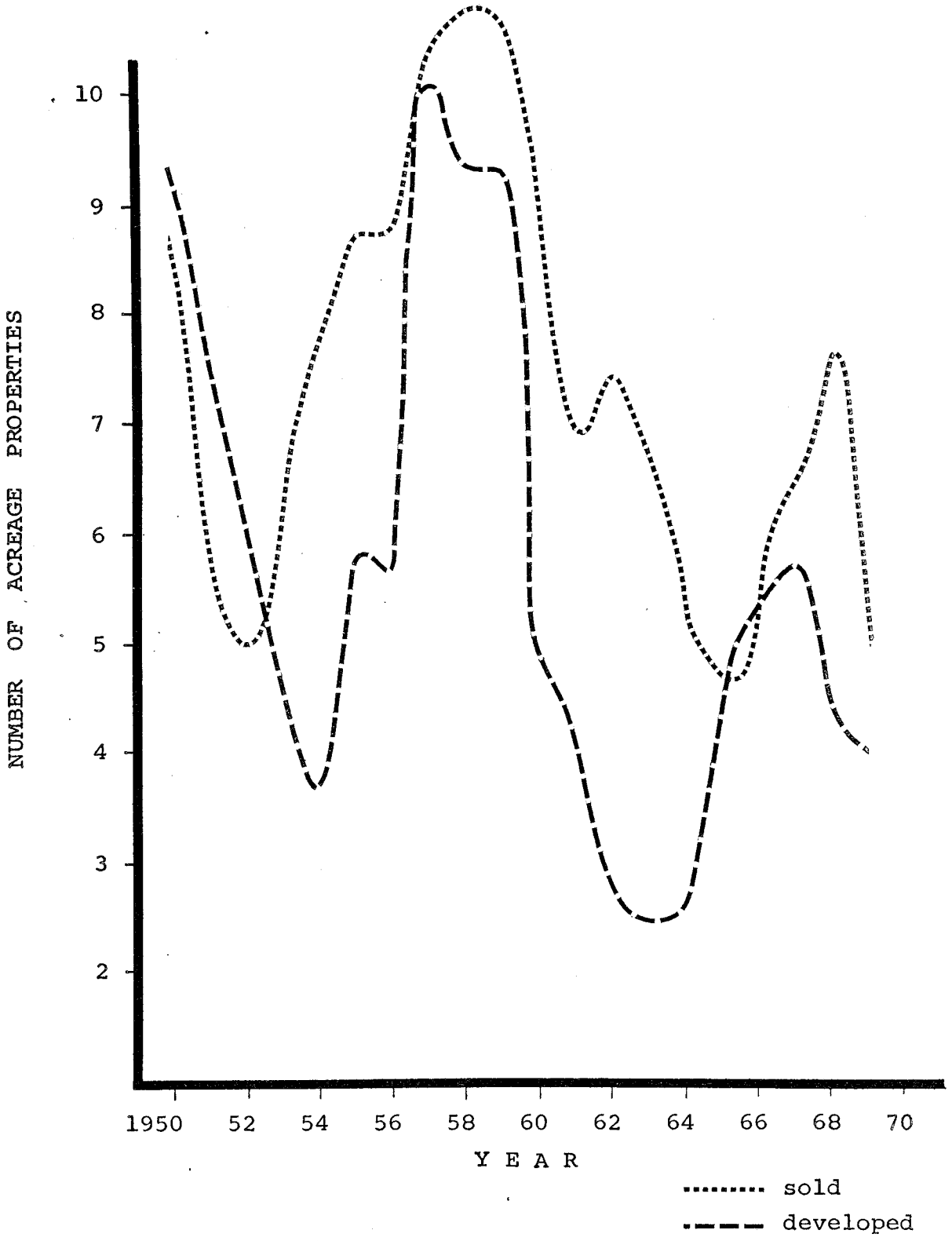
equally well in the case of the acreage property. The graphs indicate that on the whole an adequate amount of undeveloped land has been placed on the market during the sample period. Similarly, there is no information to suggest that land is being withheld in a restrictive market.

The greatest sales and development activity has occurred inSample Area 'B', but the general level of activity exhibits a steady decline over the twenty-year study period. The most consistent level, but also the least amount, of activity in this respect is illustrated by Line 'C' where there are relatively few acreage properties remaining. In the future one could expect a decreasing amount of sales and development activity in Sample Area 'C', but steadily increasing amounts in 'A'.

Figure XXVIII is a summary graph incorporating data on acreage sales and development for the entire sample area.

Figure XXVIII

DISTRIBUTION OF ACREAGE PROPERTIES
SOLD AND DEVELOPED
(Sample Areas 'A' 'B' and 'C')



Source: Analysis of sample data

LOT AND ACREAGE SALE PRICE TRENDS

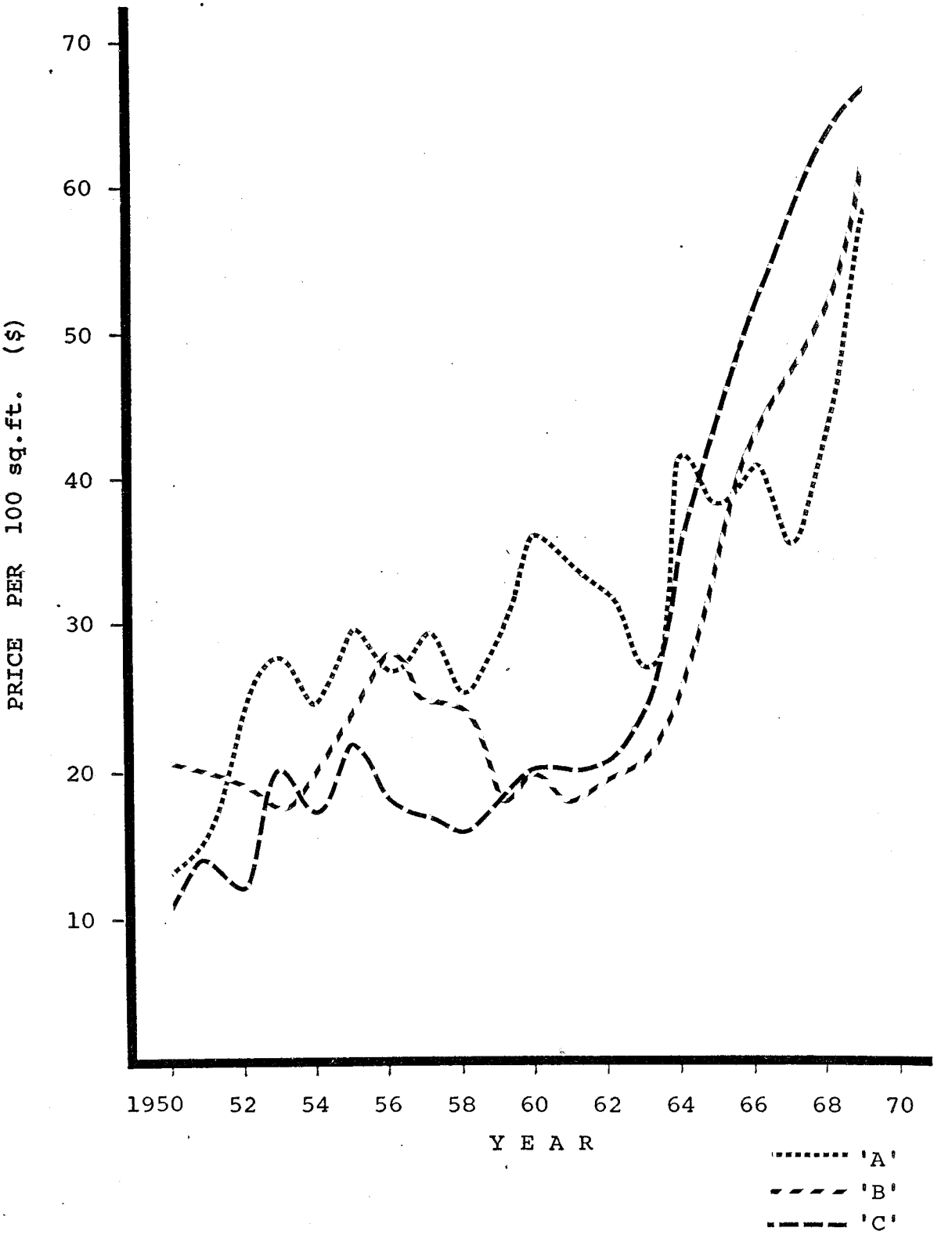
Figure XXIX depicts average lot sale prices over the study period in each of the sample areas. Since the early 1960's, lot prices in two of the areas have shown a substantial increase and certainly indicate no signs of declining. The other area, Line 'A', has laggged two years behind the others before also showing a relatively large increase, although it was not until 1967 that lot prices began a steady increase comparable to the other two areas.

As Figure XXX illustrates, similar price trends are evident for acreage property during the same time period.

Figure XXIX

AVERAGE UNIMPROVED LOT SALE PRICES

(Sample Areas 'A' 'B' and 'C')

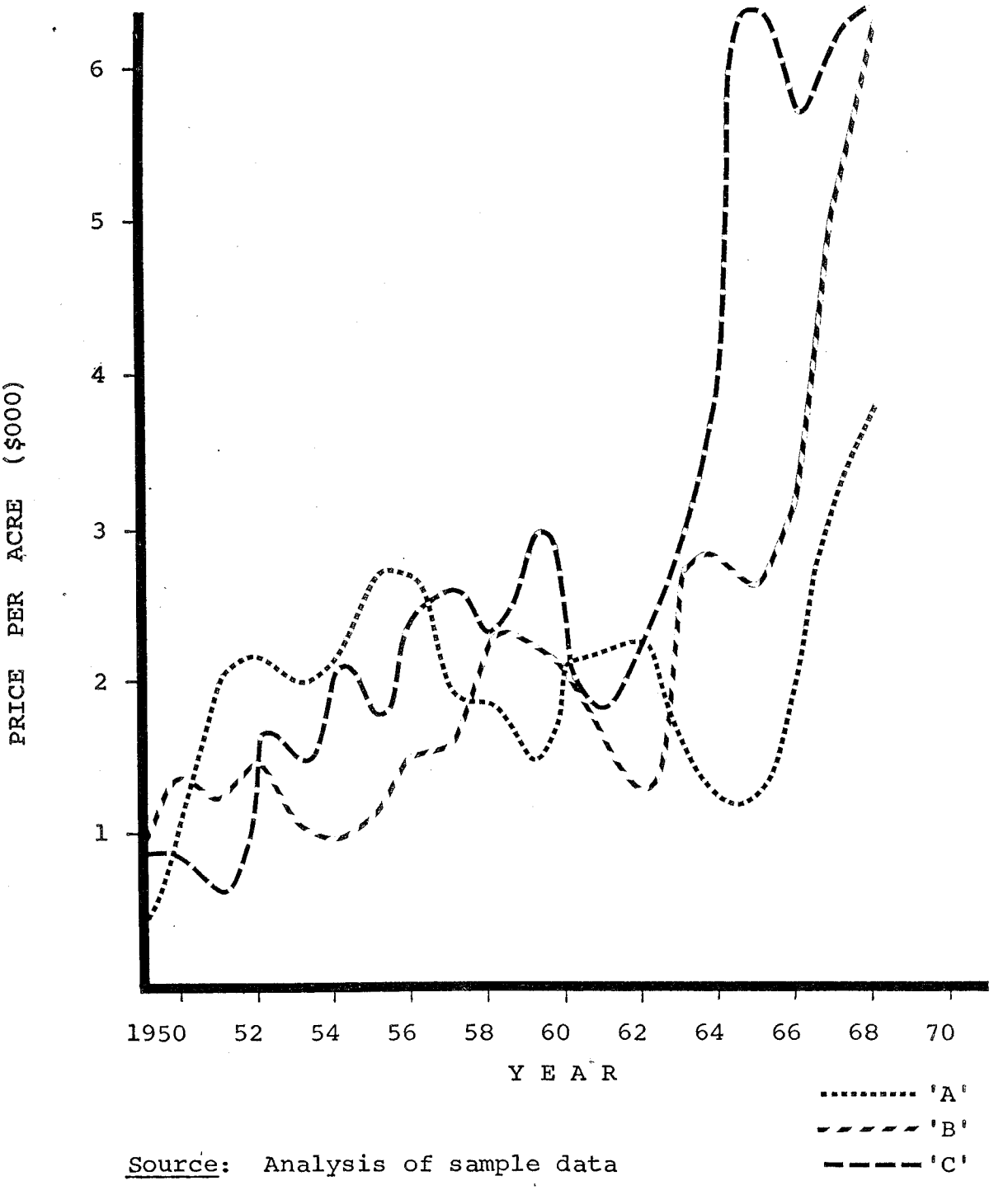


Source: Analysis of sample data

Figure XXX

AVERAGE ACREAGE SALE PRICES

(Sample Areas 'A' 'B' and 'C')



Source: Analysis of sample data

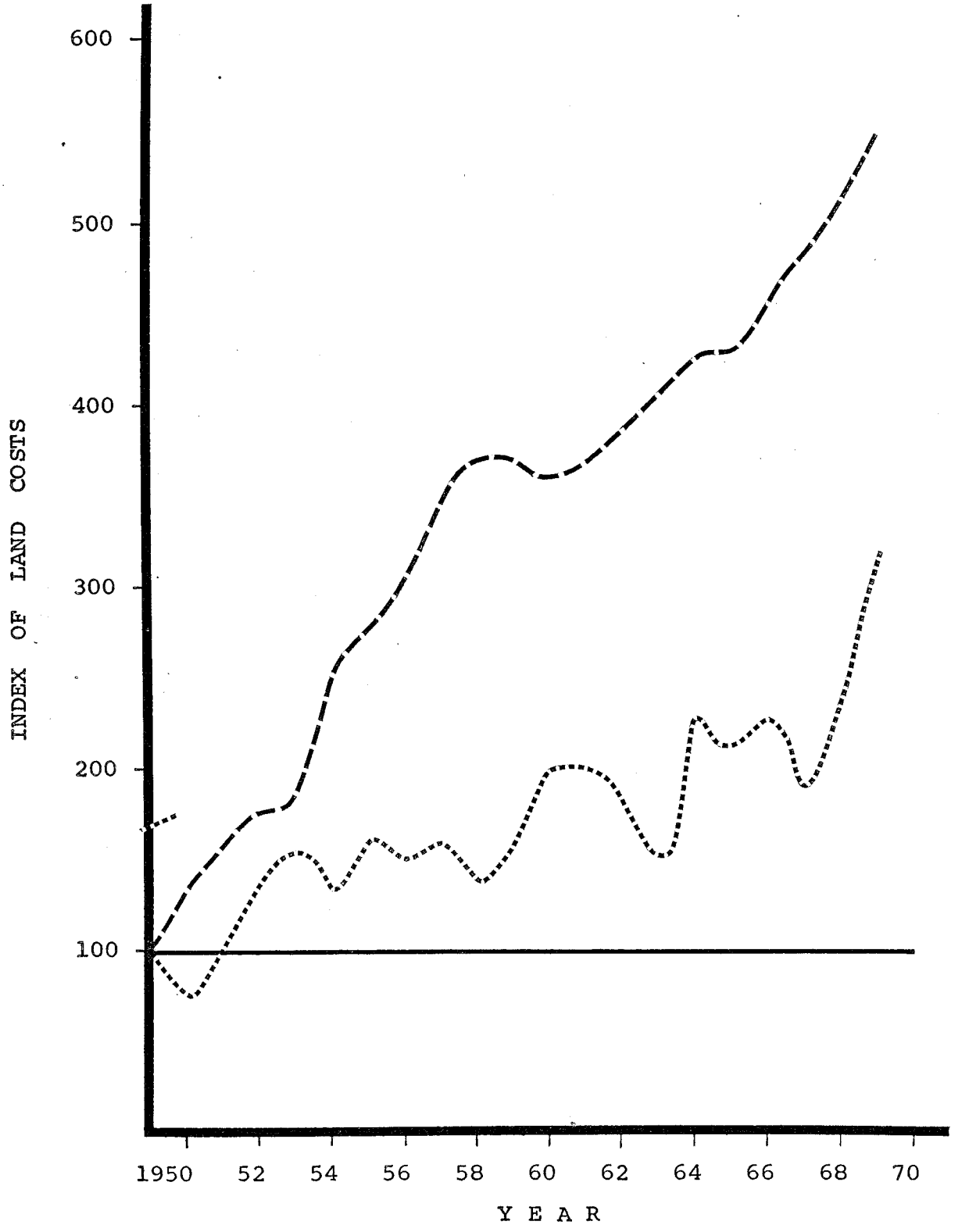
Figures XXXI, XXXII & XXXIII depict price trends of undeveloped lots in each of the areas expressed as indices, and compared in each case with an index of land prices computed by Central Mortgage and Housing Corporation. A brief comment on these graphs is in order, lest they appear somewhat misleading.

The graphs of the sample line areas all appear considerably depressed -- at least until recent years -- as compared to the CMHC index curve. This is primarily due to the nature of the CMHC index, which is calculated on a national basis, using as data inputs only those unimproved lots that are being financed directly by CMHC and developed in a given year. In other words, the CMHC index represents the cost of land available for immediate development. With this in mind, it can be appreciated that as an area becomes increasingly built-up, its cost of land index would become more comparable to the CMHC index. In fact this outcome is evident in the graph of Sample Area 'A', where in recent years this particular area has become almost completely developed. All three graphs indicate that, for the last seven or eight years, land costs in the sample areas have been increasing at a greater rate than the national average as computed by CMHC.

Figure XXXI

LOT PRICES INDEXED

(Sample Area 'A')

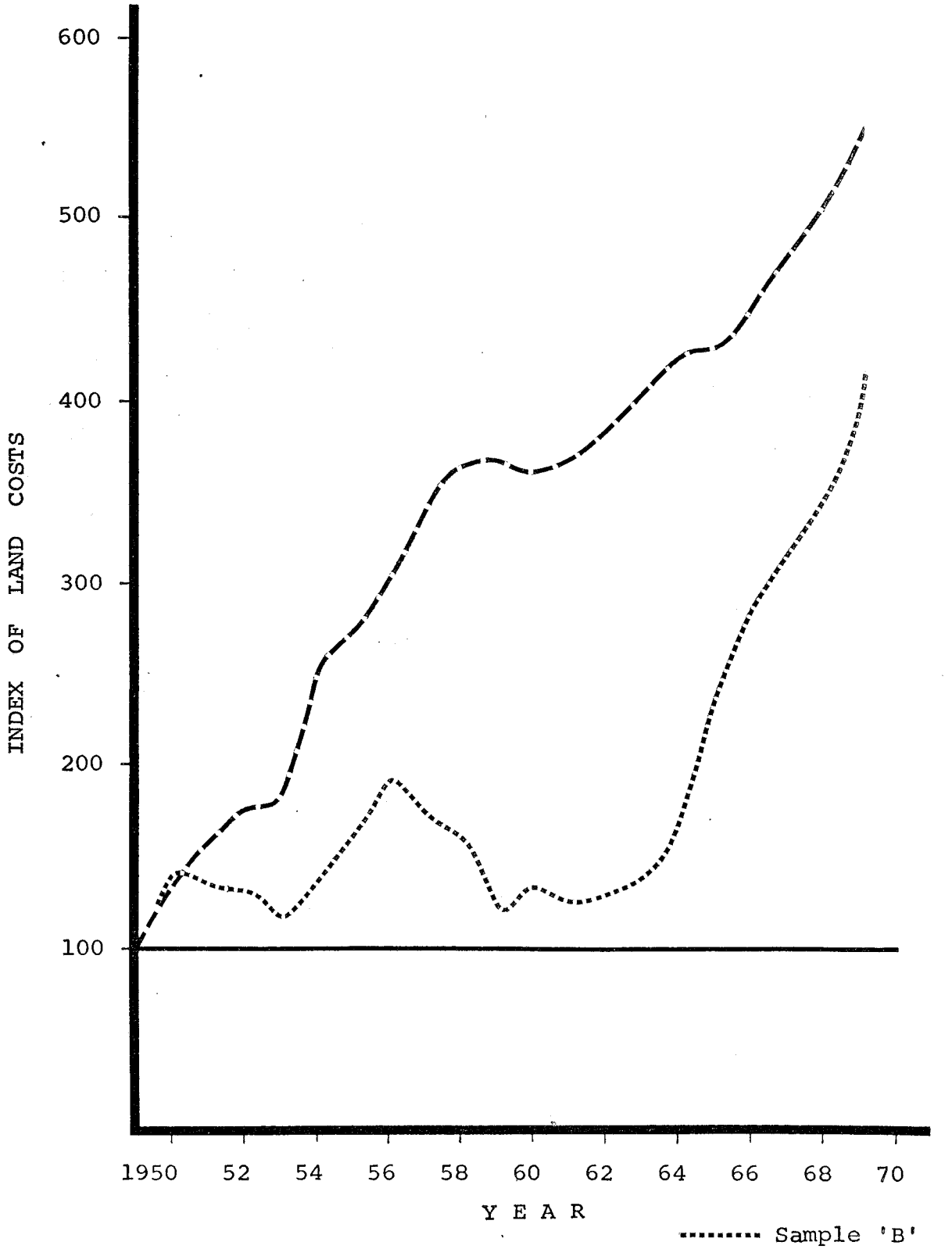


Source: Analysis of sample data

Figure XXXII

LOT PRICES INDEXED

(Sample Area 'B')

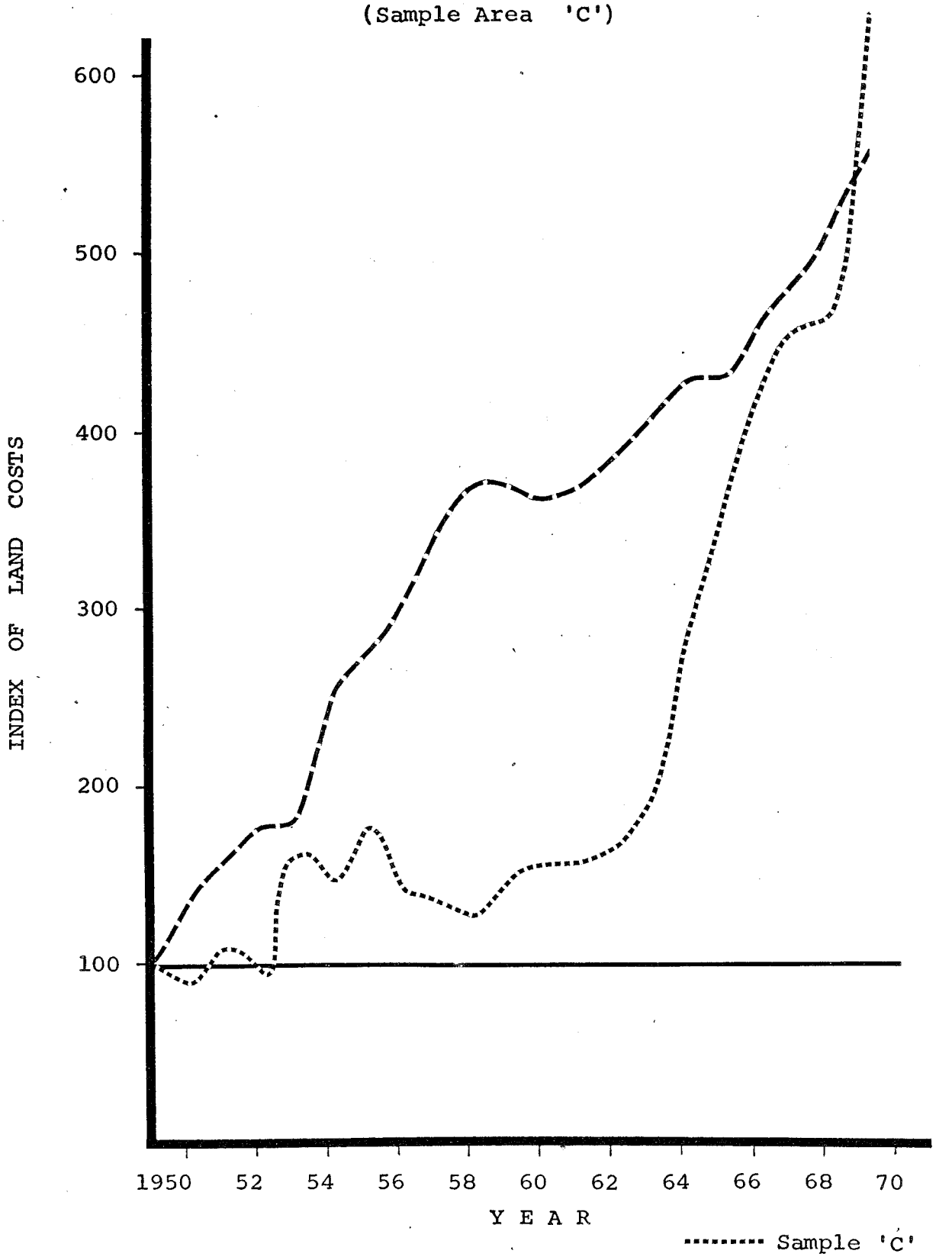


Source: Analysis of sample data

(1949 = 100)

LOT PRICES INDEXED

(Sample Area 'C')



Source: Analysis of sample data

(1949 = 100)

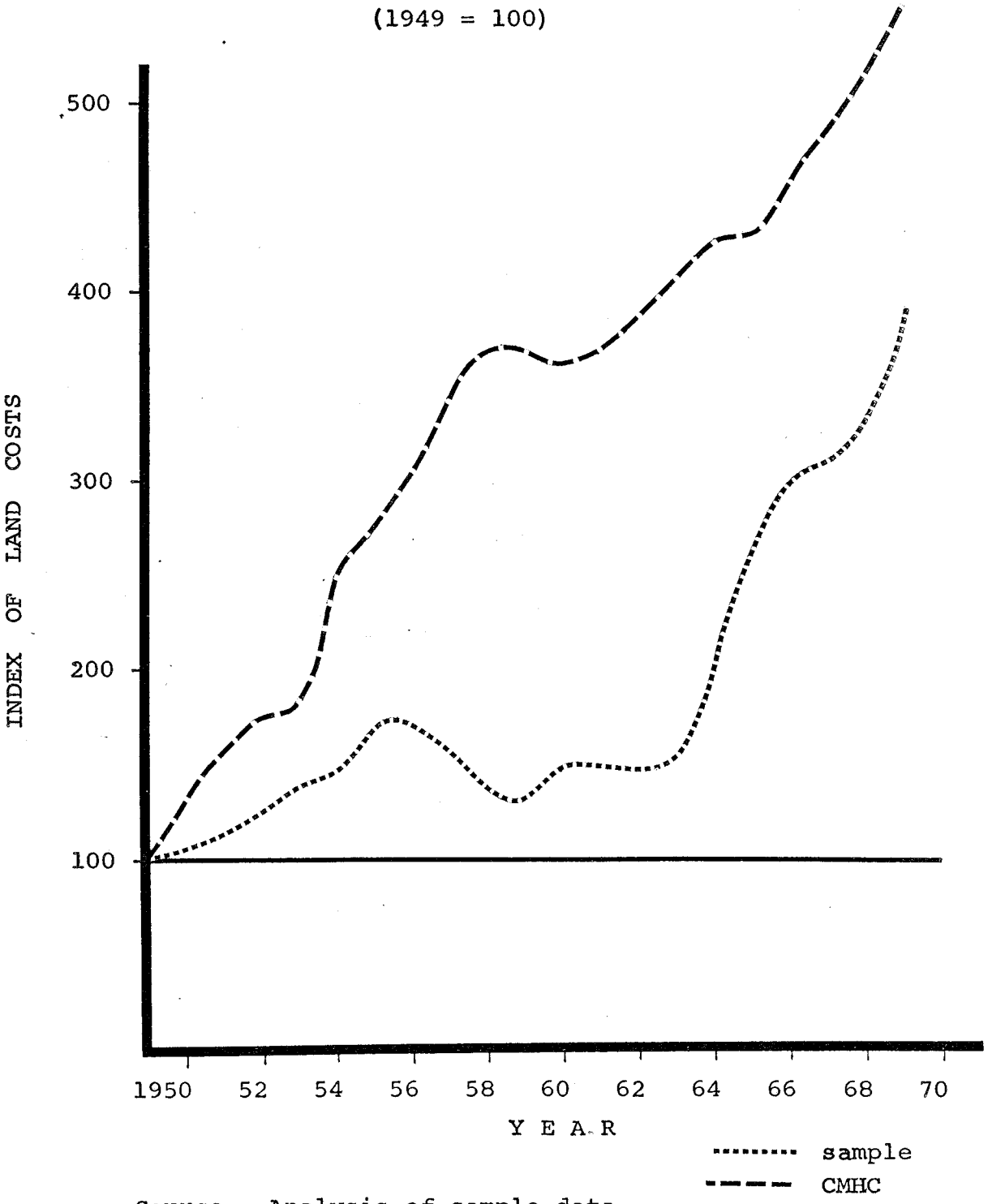
Figure XXXIV is a weighted average of all lot prices in the sample areas, again calculated as an index, and compared with data from CMHC. Unfortunately it was not possible to compute similar indices for the acreage properties.

Figure XXXIV

LOT PRICES INDEXED

(Sample Areas 'A' 'B' and 'C')

(1949 = 100)

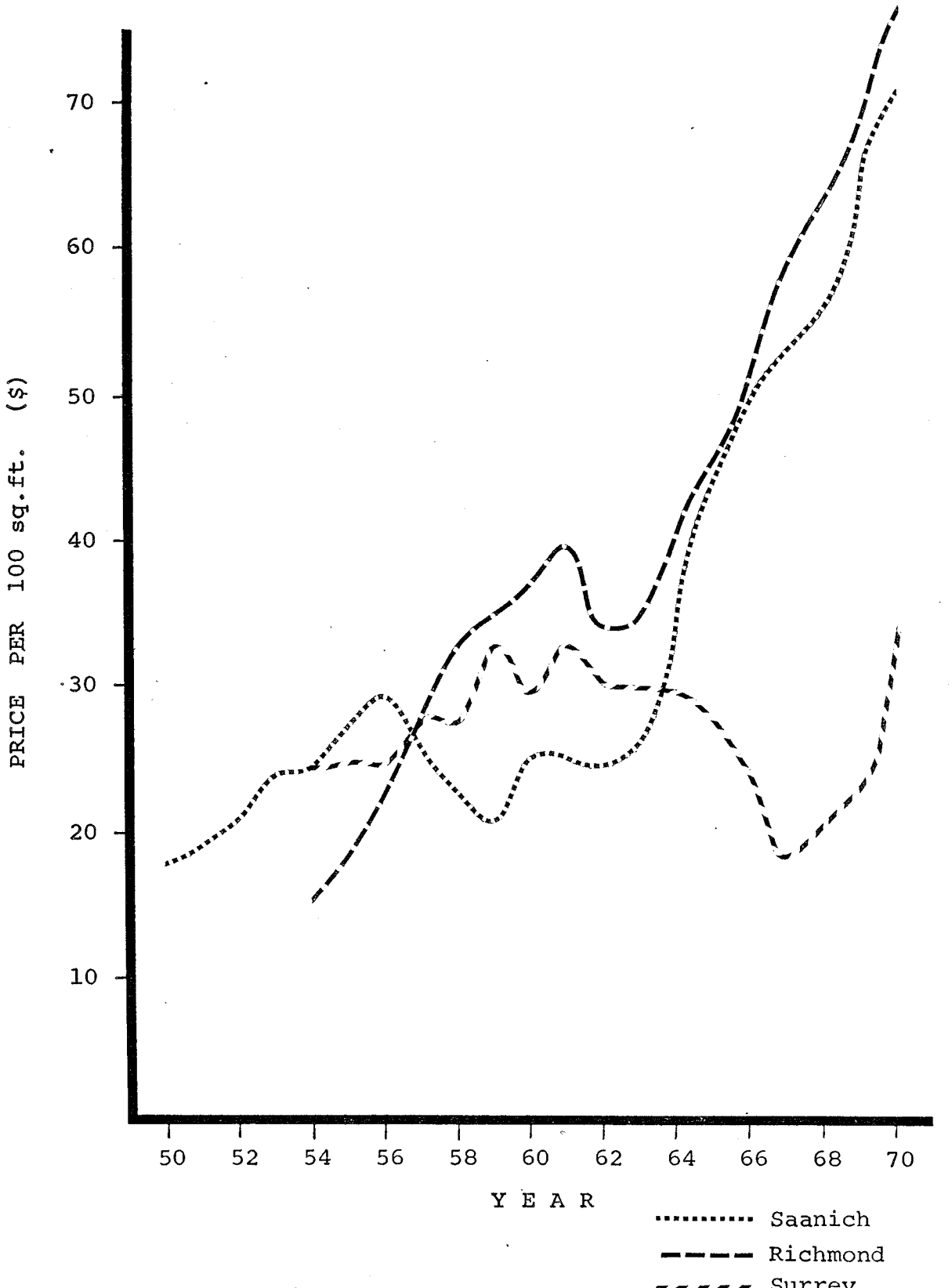


Source: Analysis of sample data

While still on the subject of sale prices, it would be worthwhile to briefly compare land values in Saanich with those of the Municipalities of Richmond and Surrey. In many respects, Richmond is an area with similar physical and developmental characteristics as Saanich. If relative proximity to the nearest central business district is any measure of relative land values, one would expect lot and acreage prices to be considerably higher in Saanich than in Richmond. Such is not the case, however, as lot prices are less and acreage prices considerably less (Figures XXXV & XXXVI). With one or two exceptions, land values for both Saanich and Richmond show very similar trends over the past 15 years. Lot and acreage prices in Surrey are well below those of the other two areas in recent years, although lot prices at least give indications of a forthcoming rapid increase.

Figure XXXV

AVERAGE UNIMPROVED LOT SALE PRICES
(SAANICH, RICHMOND AND SURREY)

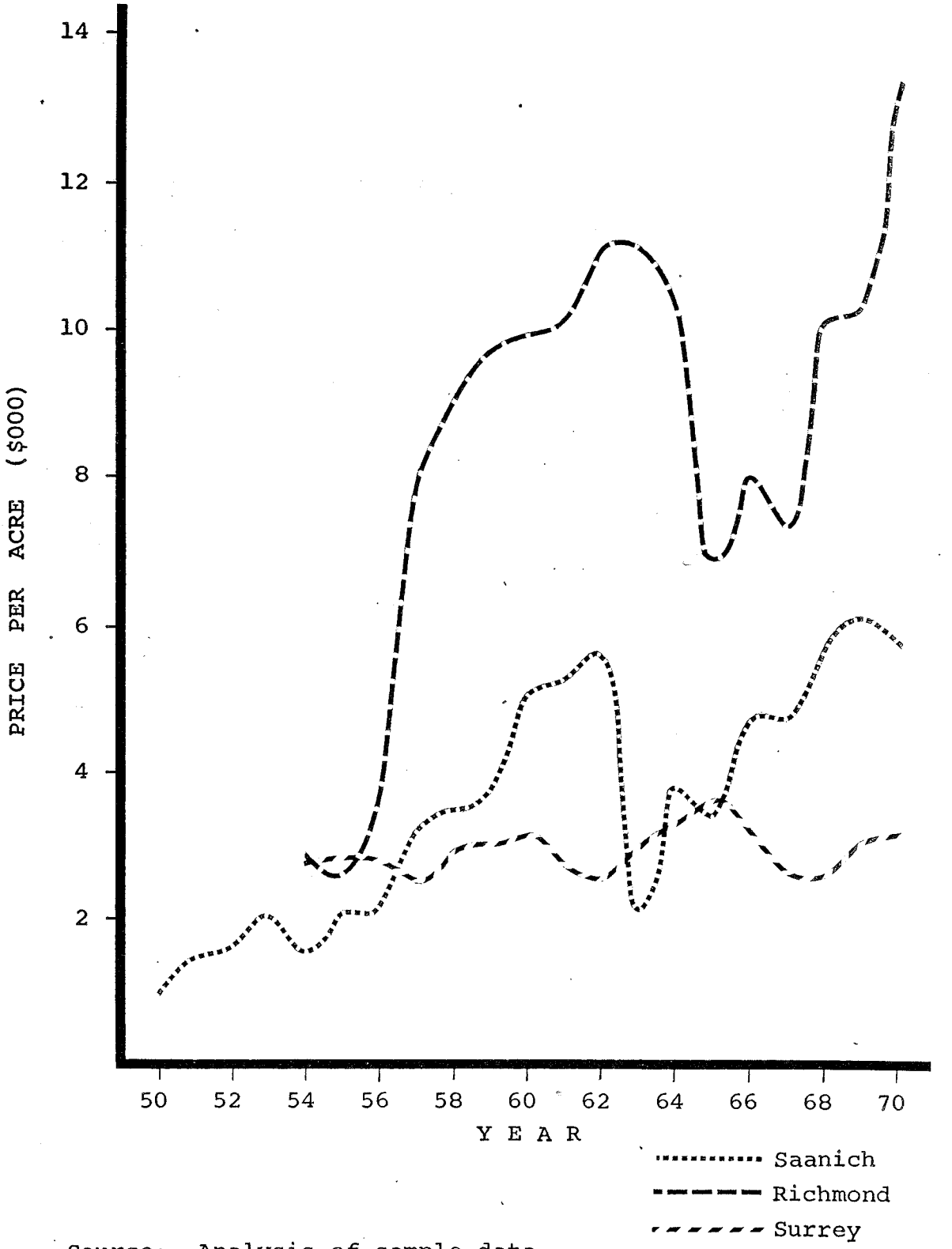


Source: Analysis of sample data
UBCM Land Speculation Study

Figure XXXVI

AVERAGE UNDEVELOPED ACREAGE SALE PRICES

(SAANICH, RICHMOND, AND SURREY)



Source: Analysis of sample data
UBCM Land Speculation Study

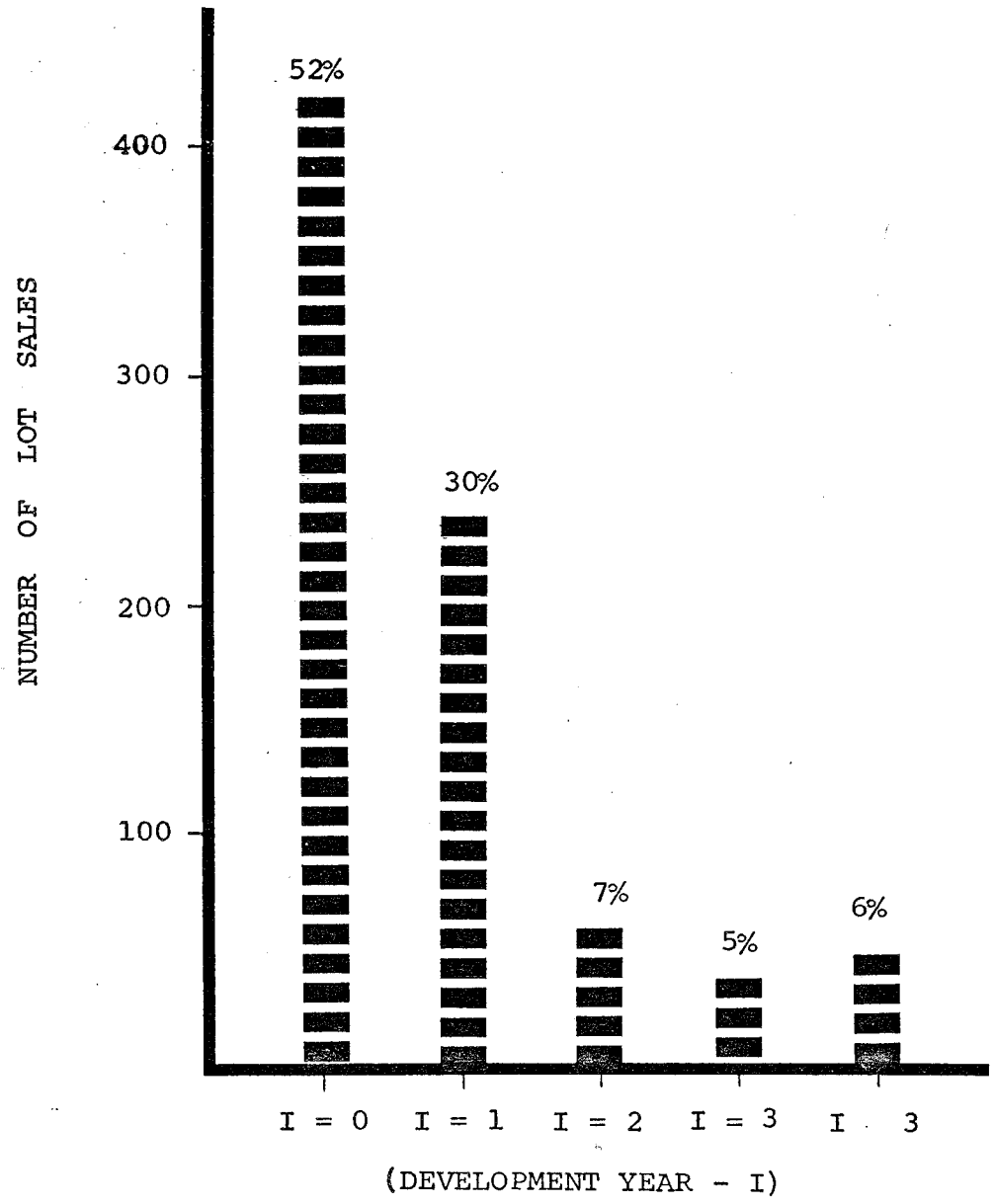
TIMING OF DEVELOPMENT

Figure XXXVII depicts the relationship between the date of the last sale and the actual year of development for unimproved lots in the three sample areas. This graph indicates that over 50 per cent of the sample lots were developed in the same year they were last sold, and a further 30 per cent one year after they were last sold. Considering then, that over 80 per cent of the lots were developed within two years of their last sale, there does not appear to be substantial evidence of premature subdivision activity in the sample area. In fact, only six per cent of lots were developed at least three years after their last sale.

Figure XXXVIII supplies similar information with respect to the acreage properties, and reveals that over half of these properties were developed within one year of their last sale. However, almost 20 per cent of them had not been developed within three years of their last sale. This would indicate a degree of premature conversion of acreage land. That his is evident in the acreage properties but not in the unimproved lots probably reflects the fact that lots have servicing costs associated with their development, whereas this is not always the case with large acreage property.

Figure XXXVII

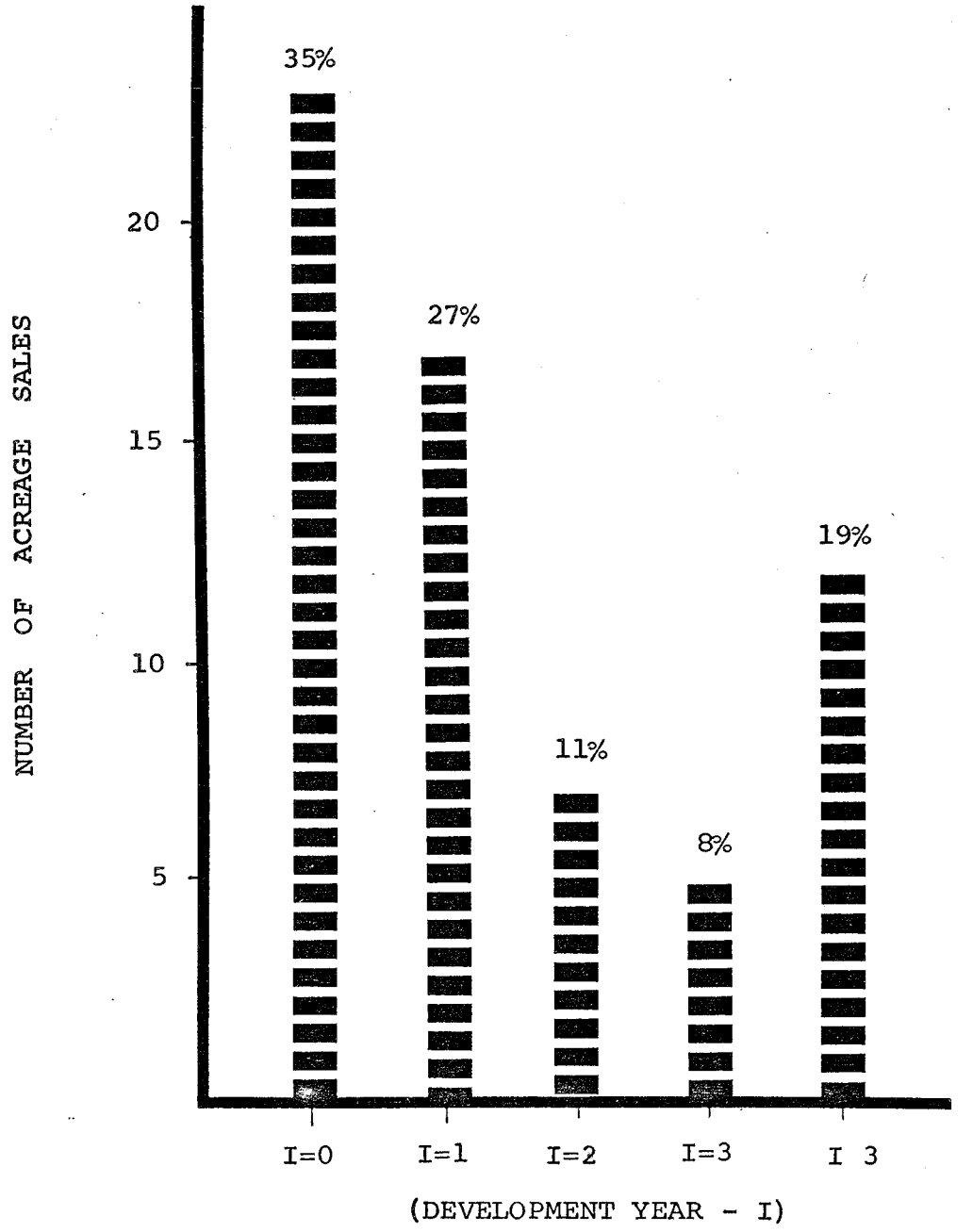
RELATIONSHIP OF LAST SALE TO DEVELOPMENT YEAR, FOR SUBDIVIDED LOTS



Source: Analysis of sample data

Figure XXXVIII

RELATIONSHIP OF LAST SALE TO DEVELOPMENT YEAR, FOR ACREAGE PROPERTY



Source: Analysis of sample data

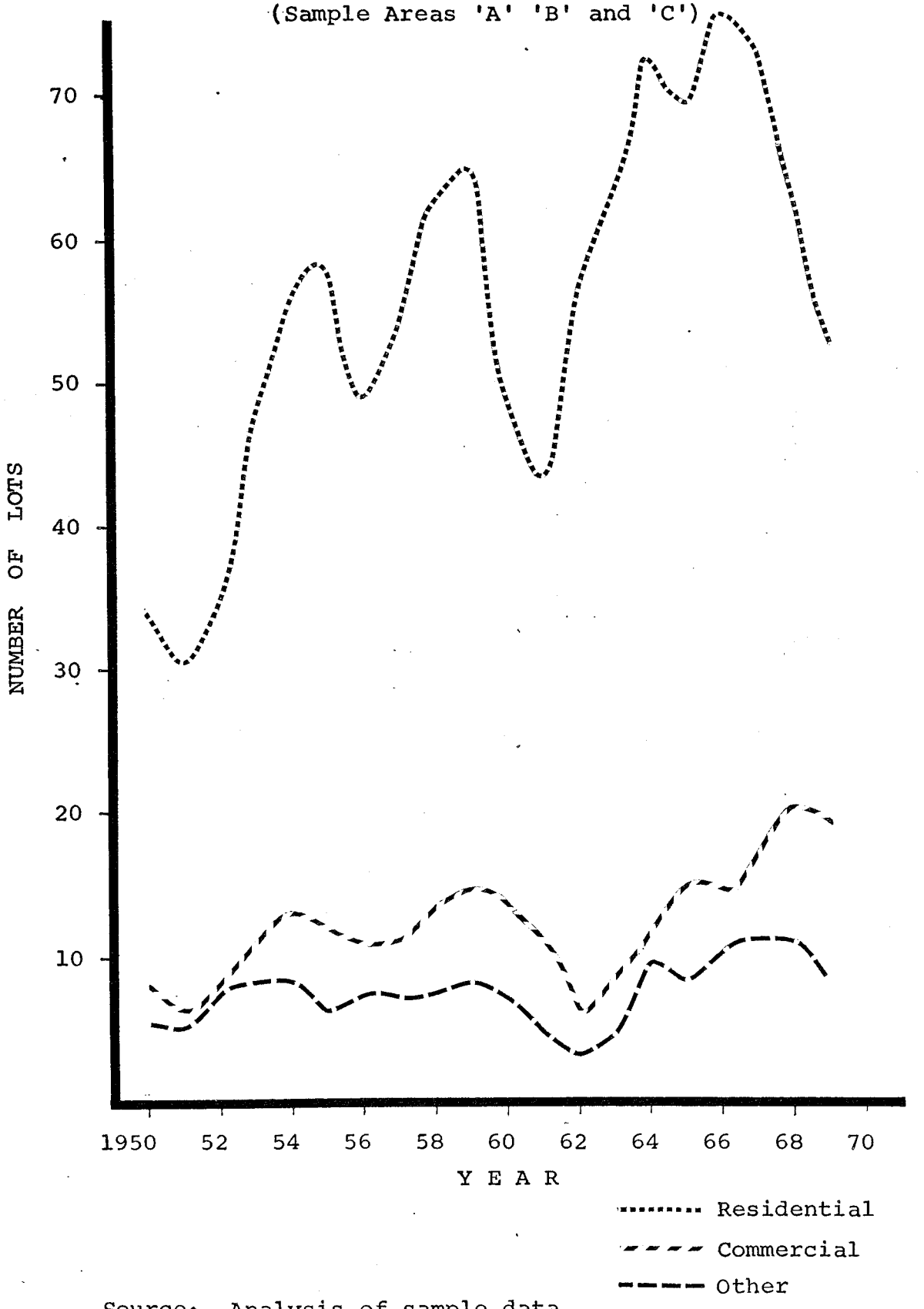
SALES BY ZONING CLASSIFICATION

Figure XXXIX is a breakdown of the total number of lots sold by zoning classification. The results are not unexpected: lots zoned for residential purposes outnumber those in the next highest catagory -- commercially-zoned property -- by fourfold.

Figure XL is a similar breakdown, but for land sold in acreage parcels. As the graph indicates, 1969 was the first year in many that there were more sales of residentially-zoned acreage property than of any other classification, including farmland -- an indication of the changing land uses of the area.

Figure XXXIX

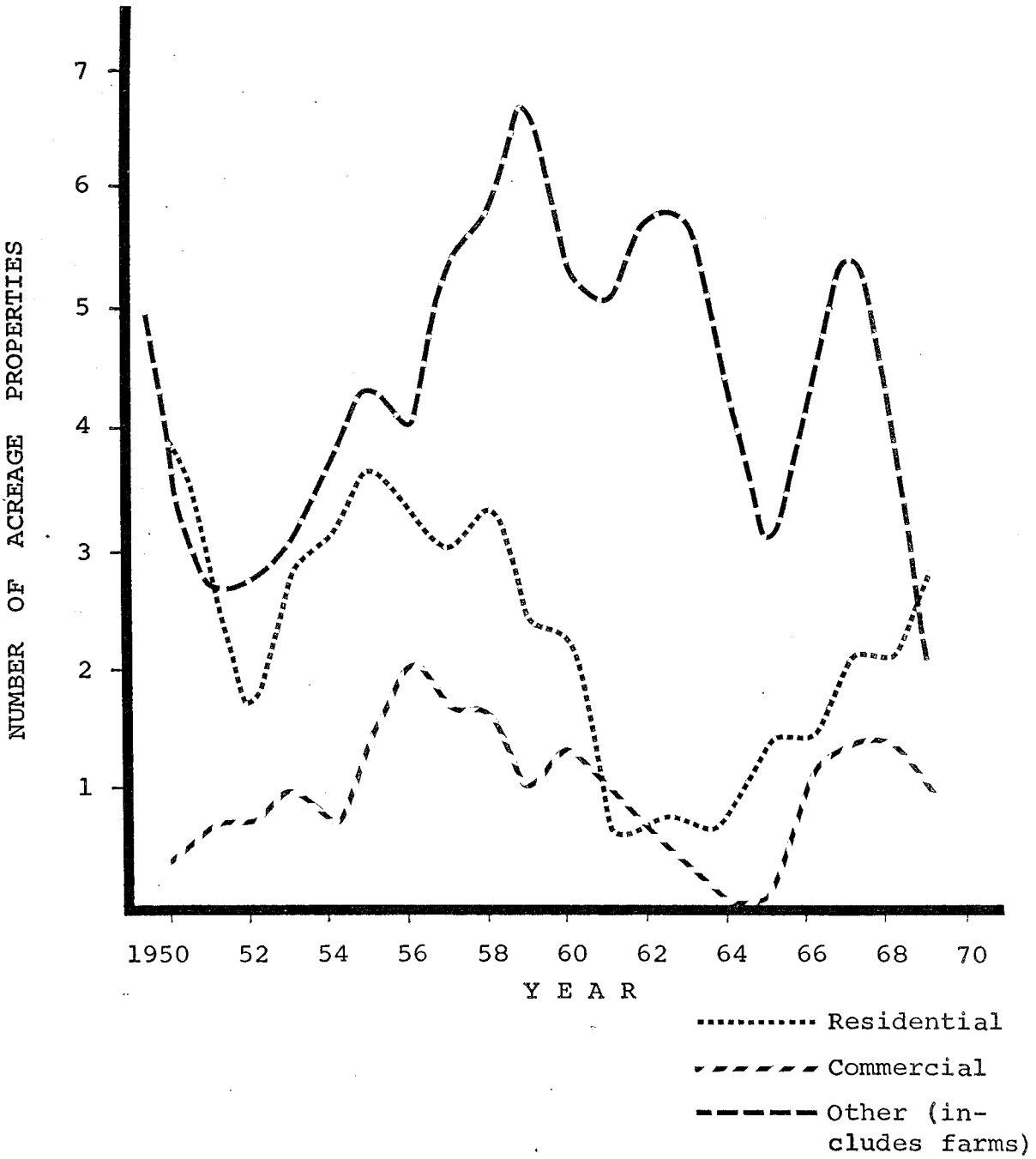
SALES OF UNIMPROVED LOTS
BY ZONING CLASSIFICATION
(Sample Areas 'A' 'B' and 'C')



Source: Analysis of sample data

Figure XL

SALES OF ACREAGE PROPERTY
BY ZONING CLASSIFICATION
(Sample Areas 'A' 'B' and 'C')

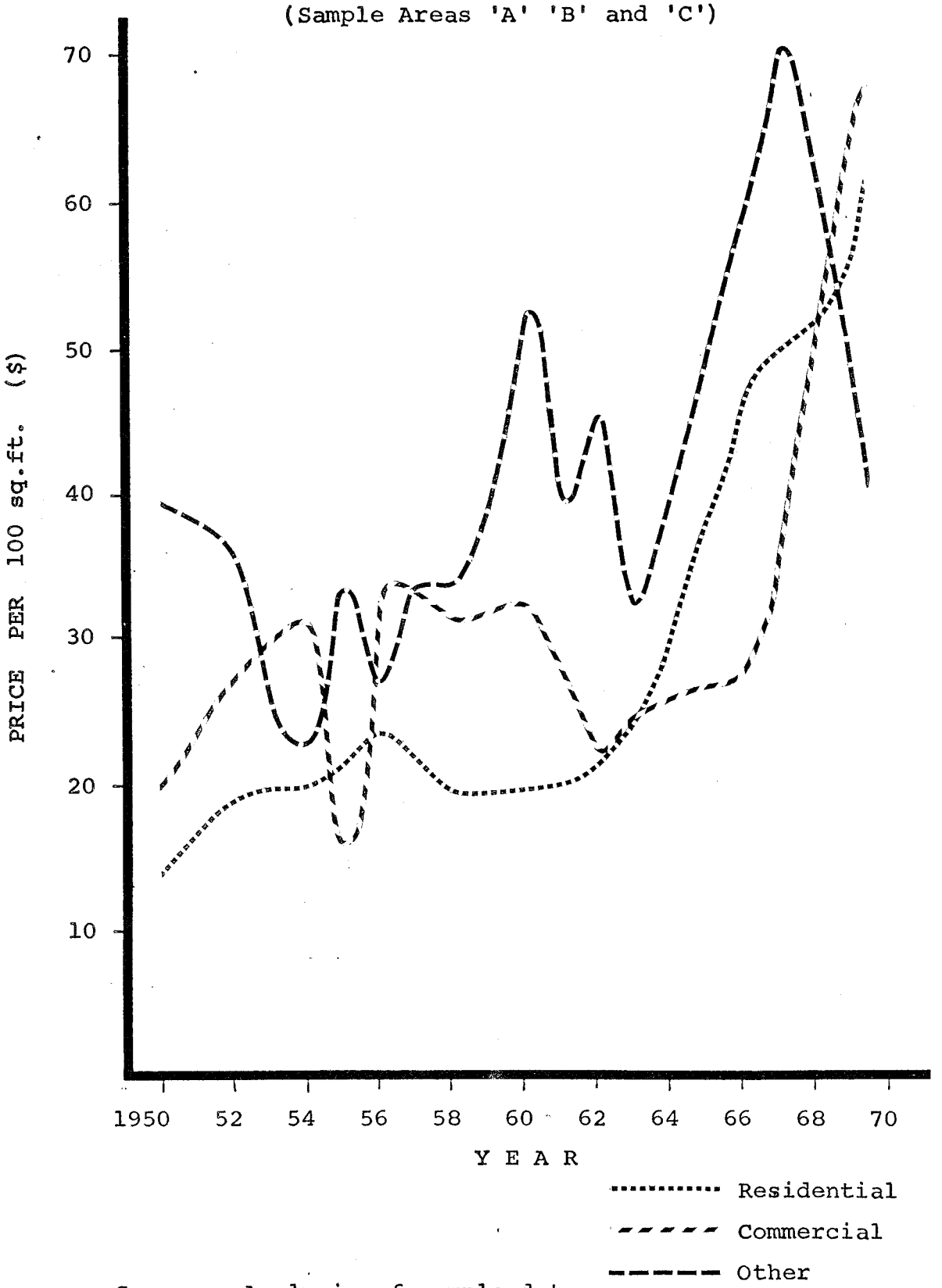


Source: Analysis of sample data

Figure XLI illustrates the sales price of lots in the sampled areas in relation to their zoning classification at the time of sale. Again, the changing pattern of land uses in the area as it becomes increasingly developed are very evident. Residentially-zoned land has been steadily increasing in value since the beginning of the study period.

Unfortunately, although similar information is available for acreage property, there are some omissions which preclude the use of a graphic illustration. However, the trends apparent from the data appear to be similar to those of the unimproved lots. The only notable exception is the fact that the price of residentially-zoned acreage parcels is consistently higher than that of commercially-zoned acreages throughout the study period -- a result that is not surprising.

SALES PRICE OF UNIMPROVED LOTS
BY ZONING CLASSIFICATION
(Sample Areas 'A' 'B' and 'C')



Source: Analysis of sample data

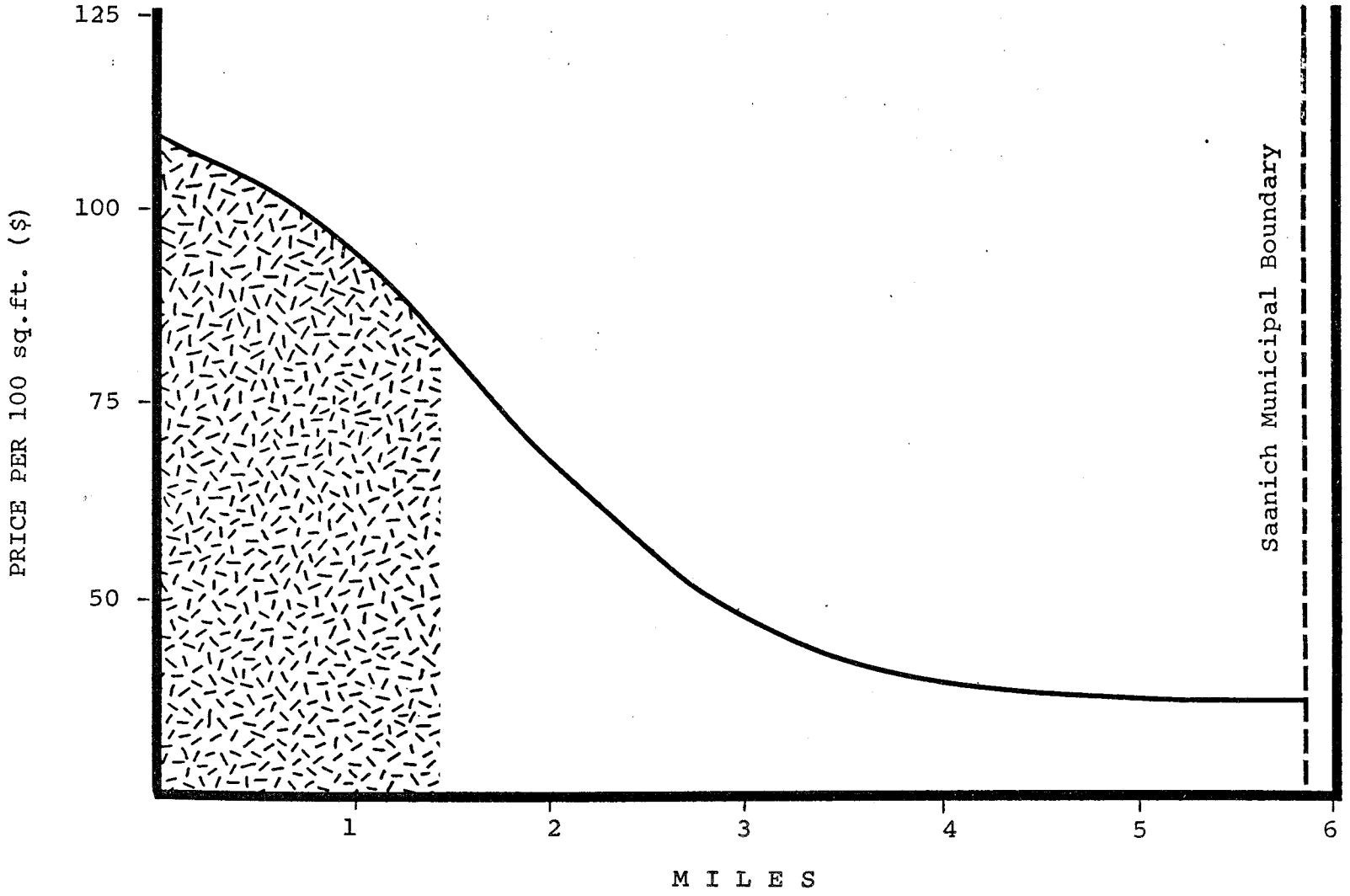
SALE PRICES AS A FUNCTION OF DISTANCE FROM SAMPLE LINE ORIGINS

The following series of figures contain graphical representations of lot and acreage sale prices as a function of the distance from the common origin of the three sample lines. As noted earlier in the study, the origin selected was at the intersection of Tolmie and Douglas Streets, an established, built-up area on the Victoria-Saanich boundary. Information with respect to the location of sewered areas in relation to the sample lines is included on each graph.

In almost all the cases the expected pattern of land values prevails: high sale prices in the built-up area which is close to the Victoria CBD, and successively lower prices as distance from the origin increases and land uses change from predominantly medium density commercial and residential to low density residential and agricultural uses. In the case of Sample Line 'B', the effect of a well-established residential community at Cordova Bay (about five miles from the origin of 'B') is readily apparent on the two respective graphs.

Figure XLII

AVERAGE LOT PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'A')

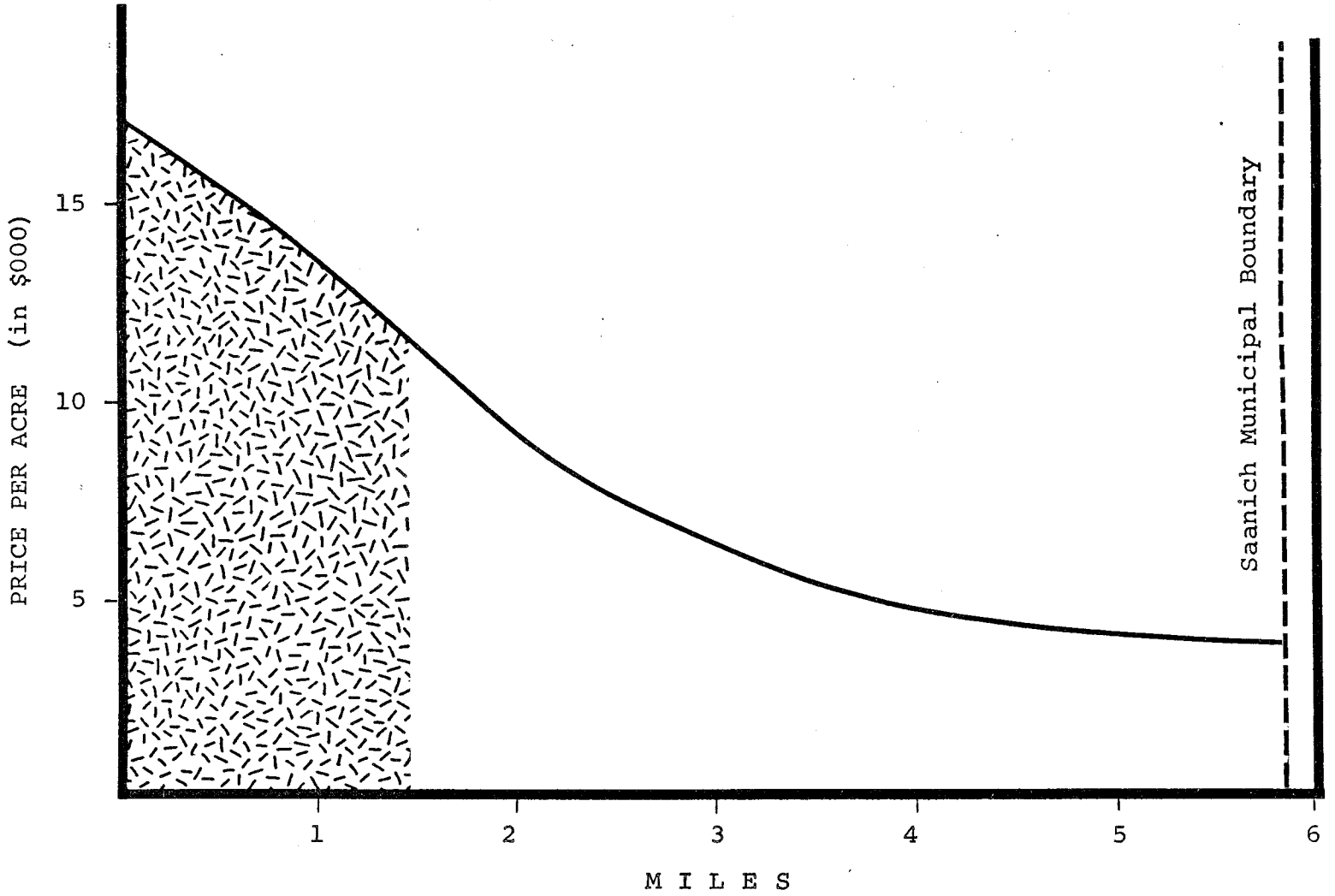


Source: Analysis of sample data

- Existing sewered area

Figure XLIII

AVERAGE ACREAGE PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'A')

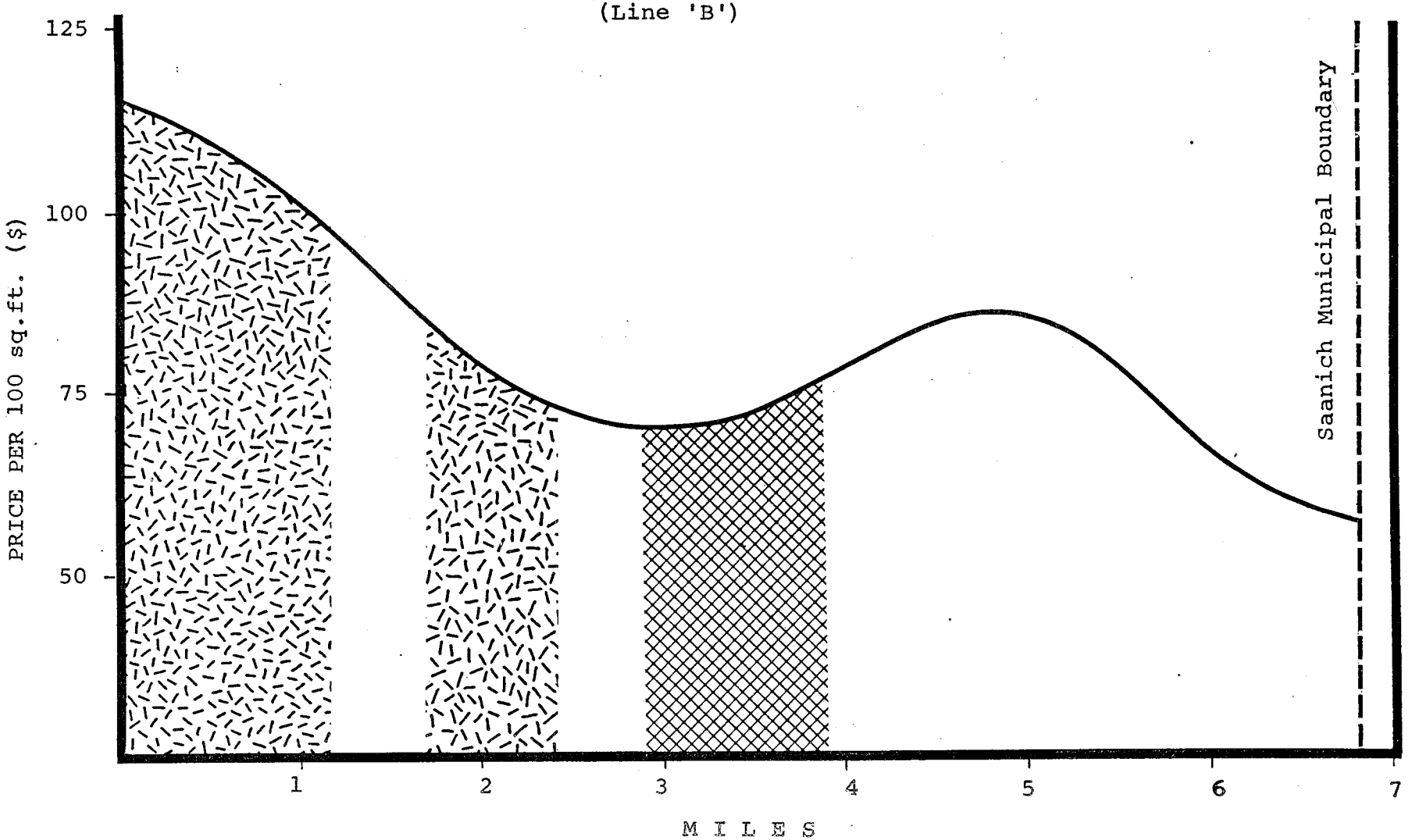


Source: Analysis of sample data

- Existing sewered area

Figure XLIV

AVERAGE LOT PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'B')



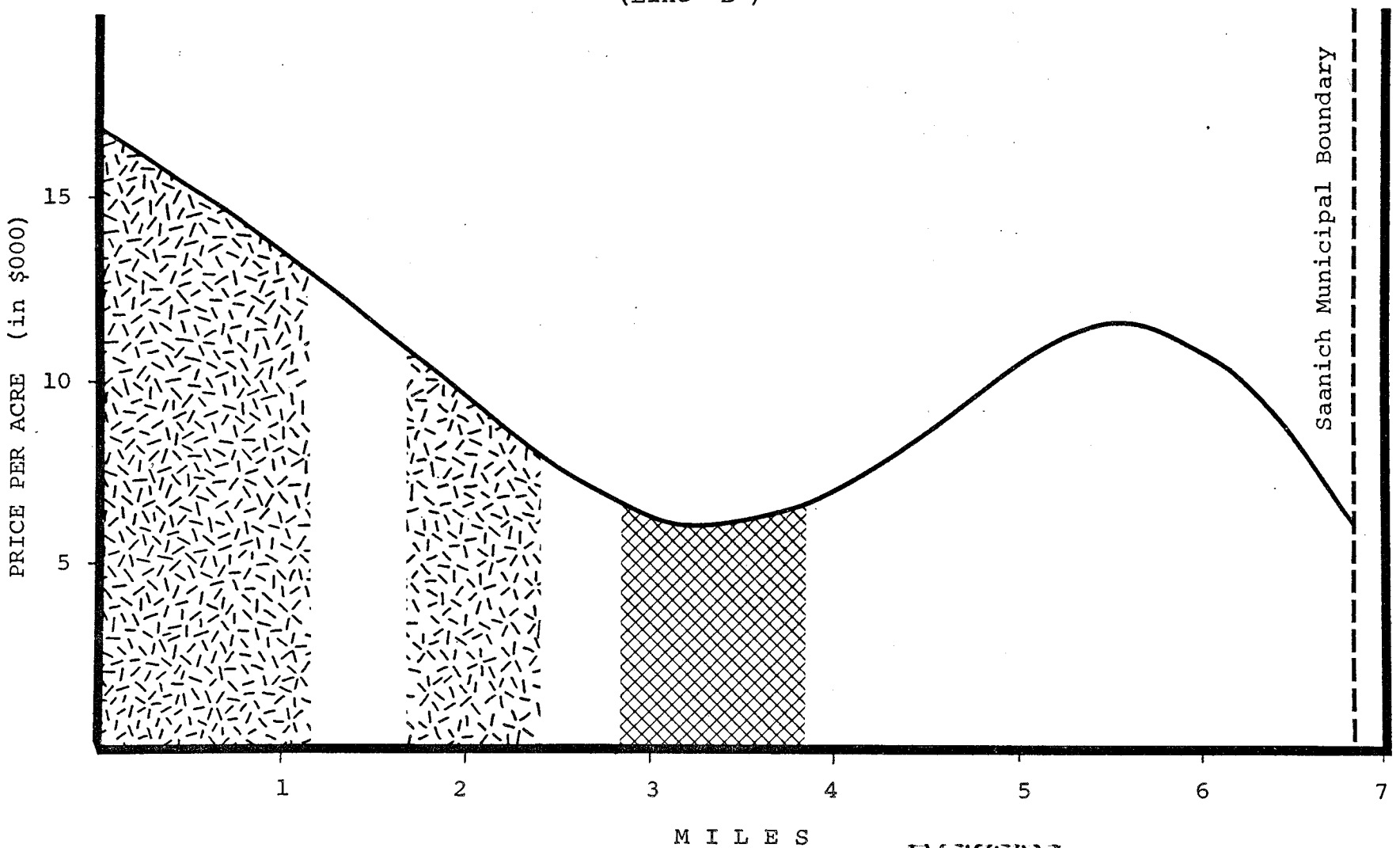
Source: Analysis of sample data

- Existing sewered area

- Tentative expansion

Figure XLV

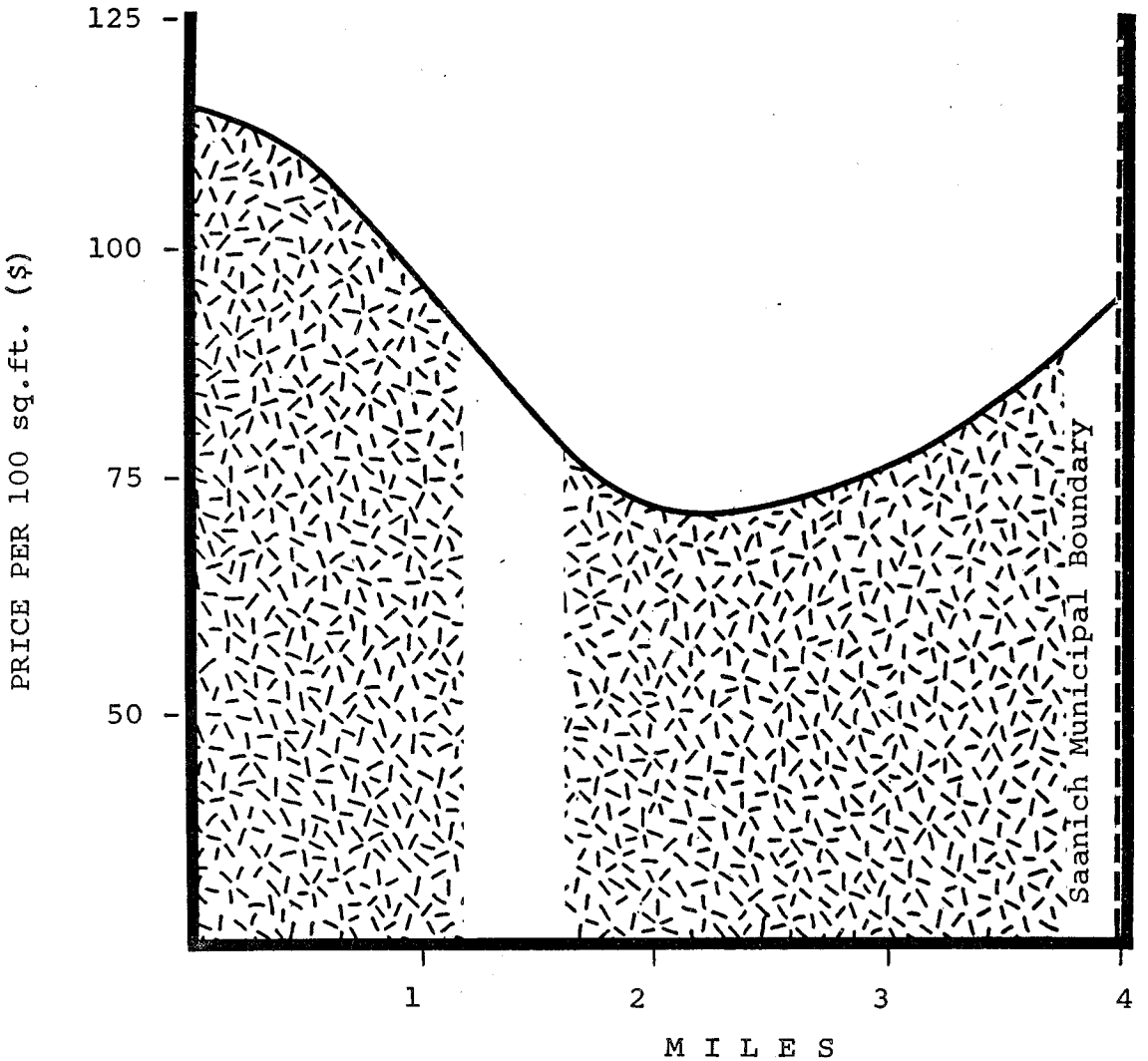
AVERAGE ACREAGE PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'B')



Source: Analysis of sample data

Figure XLVI

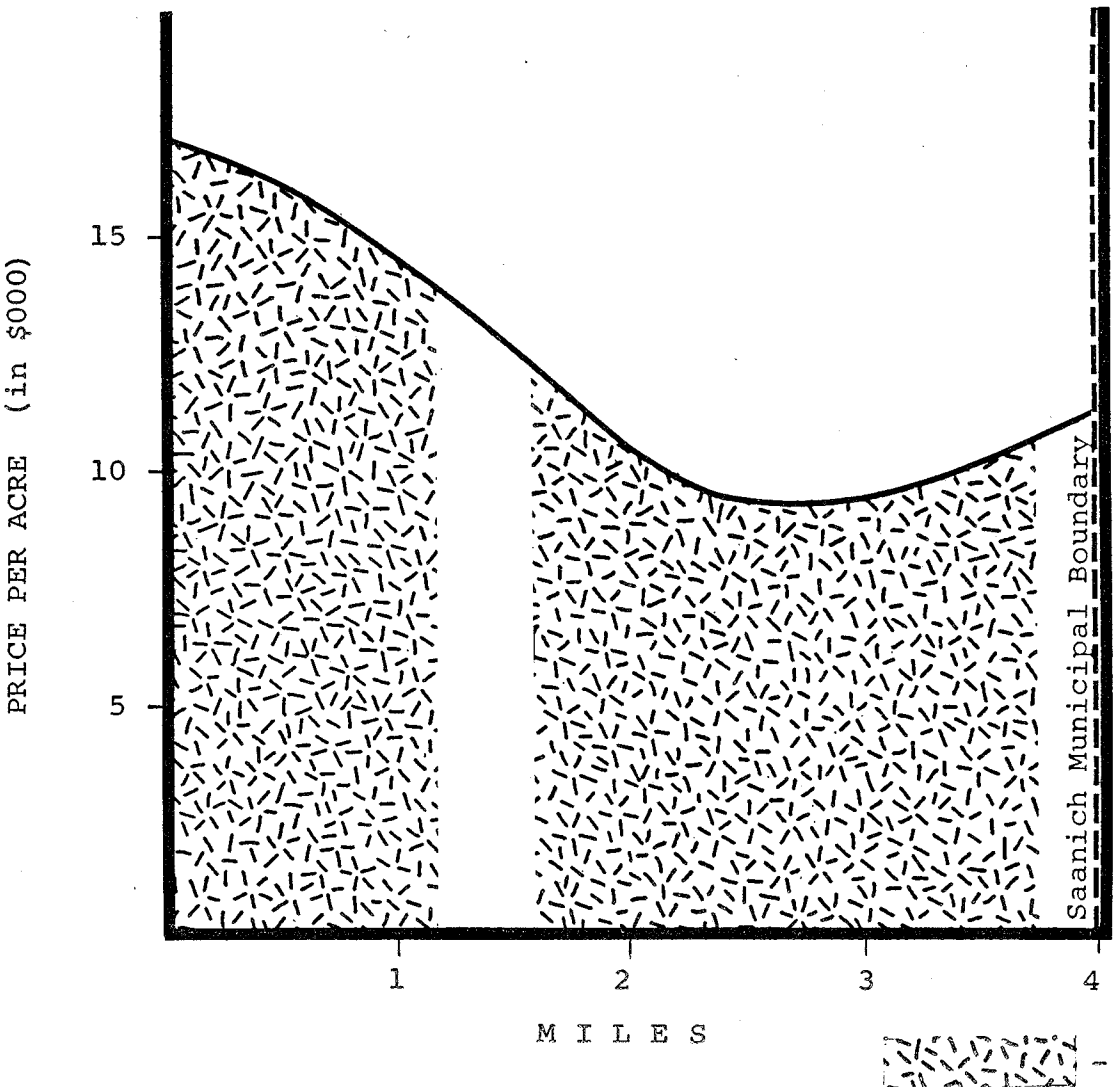
AVERAGE LOT PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'C')



Source: Analysis of sample data

Figure XLVII

AVERAGE ACREAGE PRICES OVER DISTANCE
FROM TOLMIE AND DOUGLAS STREETS
(Line 'C')



Source: Analysis of sample data

SUMMARY

One aspect of this study has become clearly evident. Land speculation -- originally defined as the withholding of land in its present use, pending an expected increase in value -- does not appear to be a significant characteristic in the study area. It is, of course, extremely difficult to correlate the degree of price increases in general to the amount of land being withheld. The data analysis has indicated that in each of the sample areas, sufficient land was placed on the market in almost all of the years investigated. As the earlier graphs indicated, more often than not the supply of land available exceeded the demand as exhibited by the amounts developed. This has obviously had a bearing on price: if anything, an ample supply of land placed on the market at regular intervals would tend to exert a dampening effect on land value increases. As demonstrated earlier, however, the price of land in the study area has been increasing at a relatively rapid rate. If land speculation -- as defined herein -- is not a significant factor in explaining these increases, other forces must be exerting pressures.

Indeed there are. Although it is beyond the scope

of this study to test this hypothesis, it would appear that population pressures and increasing per capita income are more important factors contributing to the price increases of raw land. In addition, the steadily mounting costs associated with the provision of improved municipal services and facilities have undoubtedly had a significant effect on land prices, and the subsequent cost of housing.

CHAPTER VII

CONCLUSIONS

INTRODUCTION

This study has attempted to analyze the land use pattern, recent land value trends, and the extent and effect of land speculation in the Victoria Area.

To many persons, "land speculation" is a term having several definitions, most of them frought with emotional overtones. It was the intention of Chapter II to present a general, unemotional discussion on land speculation, incorporating economic and social considerations in relation to North American attitudes toward land, the characteristics of undeveloped land facing urbanization, the presumed effects of speculation, and an analysis of popular misconceptions concerning speculation.

Chapter III viewed the subject of land values and speculation in relation to the fundamental concepts underlying the control of land use. The main areas of consideration included the public interest in land resources, the North American system of land tenure, the case for public intervention in land uses, as well as the actual methods of controlling land use.

The purpose of Chapter IV was to present the scope and methodology of the study. A discussion of data sources and sampling procedure was included.

Chapter V established the characteristics of the study area. The historical and spatial development of the Victoria Area was traced for the purpose of establishing the present position of Saanich as an important element in the Regional context.

Analysis of the data was undertaken in Chapter VI. Included in this chapter was a discussion of the problems associated with certain unavoidable deficiencies in the data compilation, and the implications of the data analysis.

RECAPITULATION

Among the conclusions reached in this study is the suggestion that land speculation has not resulted in the withholding of substantial amounts of raw land thus causing disproportionate land value increases. As was demonstrated in Chapter VI, there was ample land made available for development in the sampled areas for the duration of the study period. Although it was not conclusively determined, it would appear rather that, if anything, there is too much land being taken out of otherwise productive agricultural uses and being made available for development. One of the most obvious results has been an abundance of unccordinated subdivisions -- a sprawl-like pattern has been developing that is undoubtedly one of the

most serious planning problems of the study area.

There are numerous causes of sprawl on the rural-urban fringe -- not the least of which is the failure of municipalities to provide satisfactory alternatives -- and it is worthwhile at this stage to reconsider briefly the subject of sprawl enveloping agricultural land in light of what has already been discussed.

As noted earlier in this study, one cause of sprawl is the independence of decision among competitors for land use. Each competitor has a different set of future expectations and demands for compensation. The rapid expansion of the economic base of housing has prompted many developers to respond to the demand for housing and produce a variety of discontinuous unrelated developments. These developers are often called "speculators", and many writers are quick to blame the conversion of agricultural land into premature subdivisions on speculators. Harvey and Clark in their article "The Nature and Economics of Urban Sprawl" conclude that speculation is "a motivation of the growth process and that all incremental additions to the urban fringe are speculative ventures".[1] However, it is the independence of placement and timing -- perpetuated mainly by zoning and taxation policies -- that allows a lack of coordination in the location decision which then results in a sprawl pattern. Thus, it is not the activity of the speculator per

se which leads to the premature conversion of farmland.

A second cause of both sprawl and agricultural land conversion is topography which is unsuitable for continuous development. The development pattern tends to utilize the land which is most accessible and economically available. Experience has shown that most suburban locations are attractive for residential development, particularly those areas suited for specialty crops as they provide both good drainage and soils for gardens. This is by no means a recent phenomenon, for in 1957 it was reported that in Ontario "eighty five percent of recent industrial and urban growth has taken place on what is classified as 'excellent' or 'very good' agricultural land".[2] The same pattern has occurred in Saanich, Richmond and Delta. As accessibility was improved the low lying agricultural areas with deep soils became more desirable as building sites than other areas with shallow or bedrock soils that are expensive to excavate.

Public policy which has supported the single-family home as a suburban environment has accentuated peripheral single-family development. For many years public policy on housing has been biased in favor of the suburban single family home as opposed to central city multiple development or even redevelopment. Furthermore, most financial intermediaries supporting subdivision development demand

that projects be organized in completable units which will not extend beyond one or a maximum of three building seasons. Such limitations have resulted in numerous discontinuous, fragmental developments. Public policies find expression in the various forms of land use controls, and it is worthwhile to consider three of these controls discussed in Chapter III -- zoning and subdivision controls, and taxation policies -- in the present context.

Zoning

In general the existing zoning regulations in the Victoria area have had the effect of curtailing the conversion of farmland to a certain degree. However, their present design cannot prevent, or even significantly influence the timing of, wholesale agricultural conversion.[3] In effect, no zoning protection exists for agricultural land on the urban fringe, as demonstrated conclusively by Hartley in his thesis, The Premature Conversion of Farmland.[4]

Before condemning zoning regulations altogether, it is worthwhile to briefly consider the intentions of zoning as stated in Section 702 of the Municipal Act:

> (1)(b) *regulate the use of land, buildings and structures... and the power to regulate includes the power to prohibit.
>
> (2)(a) the promotion of health, safety, convenience...

(b) the prevention of the overcrowding of land.
(f) the conservation of property values.

*regulate includes the power to prohibit.

Thus, the original intention of zoning, as an instrument of public regulatory power, is to control land uses in already built-up areas. In other words, "use" regulations were enacted to separate conflicting land uses, and lot and building standards for the purpose of controlling population densities. These regulations have been shaped to promote urban objectives and subsequently have become a part of standard laws.

However, problems have arisen, particularly since the Second World War. "With the development of a mobile population and a trend towards suburban living, it became obvious that areas outside the urban centres required some sort of planning control, especially agricultural areas".[5] The result was the establishment of an agricultural zone to prevent "indiscriminate urban size lot development" and "direct new urban growth into specific areas". This form of control has been only partially successful because often the power to prohibit residential use in the form of agricultural zoning regulations has not been enforced but only a set of restrictions placed on development to forestall conversion. Furthermore, by practising zoning as it presently exists, the suburban municipalities are approaching

their problems in a negative manner for zoning is essentially a negative by-law regulating what cannot be done.

Although they are not in the Victoria area, two regional examples of agricultural zoning forestalling residential development are worth mentioning. In 1956, Richmond enacted "...a zoning by-law which restricted subdivision of farmland to a minimum of five acres. In the three years that followed, less than 2 per cent of the new development took place in the agricultural zone which had a five acre minimum lot size".[6] The second case concerns a zoning regulation legislated in Delta by Section 27 (a) of the Delta Subdivision By-Law:

> The minimum area of parcels being created by subdivision in districts zoned or otherwise designated (for agricultural use) shall be 435,600 sq. ft. (10 acres) and have a minimum frontage of 330 feet.

The actual enactment of this latter by-law serves as an all-too-common example of the "municipal mind" at work. The subdivision by-law was passed in November 1954, but, for some unknown reason, the actual limitation on subdivision in "agricultural zones" was not incorporated until December 1958. This four year time lage naturally spurred a period of rapid growth, for developers knew that a curtailment of their activities was approaching, and consequently, substantial amounts of productive farmland was prematurely converted. The following figures illustrate

the effect of the time lag and demonstrate the need for controlled planning and proper utilization of existing legislative powers:[7]

Residential Lots Established
(North Delta)

Year	Number of Lots Established
1958	982
1959	291
1960	54
1961	23

It is worth noting that the Municipality of Saanich, in the cause of "orderly and economic growth", has recently agreed to plan in terms of "urban areas" and "rural areas" -- the former developing on full services and amenities, the latter restricted to minimum services and acreage subdivision. That a minimum parcel size will have the effect of forestalling residential development of agricultural land is indisputable. However, irregardless of such restrictions, all farmland is still open to full residential use. As mentioned earlier, the power to prohibit is included in the term "regulate" in Section 702 of the Municipal Act. It is felt that this power of prohibition should be enacted in many agriculturally zoned areas on the urban fringe in order to prevent wholesale conversion, thus eliminating a merely restrictive regulation which allows

residential use.

Subdivision Control

The subdivision by-law is a provincially legislated municipal by-law that was originally designed to regulate the layout of individual lots, but which now regulates complete subdivisions. In addition, the B.C. Department of Highways regulates a provincial by-law, "Requirements of Department of Highways Covering Submission of Subdivision Plans", and has frequently come into conflict with municipal planning agencies.[8] If properly coordinated these two by-laws could provide a most effective means of discouraging premature subdivisions on farmland particularly if local governments and the Department of Highways were to enforce high development standards in order to minimize the number of excess building lots. This coordinated action would have to be combined with prohibitive residential use in specified agricultural areas to be completely successful, for subdivision controls only operate within a development. That is, prohibitive zoning must control subdivision location as existing service and design requirements do not guarantee that the location of the subdivision will be compatible with the overall objectives of the municipality; neither do they prevent the surrounding and isolation of farmland by development. However, at present the Department of Highways seems to be dictating location and much of

the subdivision controls through its legislated power, rather than the planning departments of municipalities.

Taxation Policy

There is no question that one of the most significant catalysts of the premature conversion of agricultural land is, in fact, the property tax. The real property tax involves an annual charge levied against all real property (land and improvements) located in a taxation district. This tax is the main source of revenue for municipal governments throughout Canada accounting for approximately 50 per cent of general revenues. As the city expands farm owners are constantly being forced to liquidate their holdings because they are being taxed on the basis of the price for which their land will sell in the market place, and their agricultural income cannot support the increased assessments.

A study conducted showed that farm areas paid more in taxes than they received in services, and produced the following figures:

Land Use Classification	Revenues as a % of Expenditures
Farm Areas	136%
Sprawl Areas	76%
Suburban Areas	96%

The surplus of revenues from farm areas forces more intensive use and generally results in a subdivision development as the farm operator is forced to liquidate his land.

There have been several attempts to eliminate the complicating effects of property taxes on land use problems. Most tax relief proposals are based on one of two opposing viewpoints with respect to taxes on farmland:

> One viewpoint is that taxes on farm land should remain lower than those on nonfarm land. The other is that total taxes on farm land should be the same as those on nonfarm land, but they should be payable on a different time schedule. The first viewpoint leads to proposals for preferential assessment; the second results in deferment of portions of taxes on farm land, for taxation of capital gains, or for taxation of development rights when farm land is sold for nonagricultural uses.[10]

The first relief plan is designed to combat an increase in assessed valuation as market value of farmland rises to reflect its higher value for nonfarm uses. Historically, American State and Provincial statutes have had legal specifications that property be assessed at its market value. Recently, some laws have been changed to allow assessment of farmland on the basis of its value for agriculture. However, these laws do nothing to prevent the tax rate from going up, and thus they do not completely rule out increases in taxes.

There is a definite advantage to this form of tax relief as it enables some farmers to continue farming in areas where they might find it impossible to remain if taxes were higher. Attractive as it may seem, the writer believes this advantage is outweighed by the disadvantages, and that the deferment system is more workable. In the first place, the most obvious disadvantage is the difficulty of deciding whether land is actually being farmed or is merely being held in anticipation of price increases. Secondly, "it can encourage speculation in land at the expense of other tax payers. Land can be farmed while the price is increasing in a suburban area, and the owner, whether he is a farmer, a speculator, or both can benefit from lower taxes while the land is 'ripening' for other uses".[11] This tax system can also encourage a "leap-frogging" effect in the creation of some farms completely surrounded by urban development.

A more equitable tax relief program, as a solution to tax problems in urban fringe areas, involves deferment of a portion of the taxes on farm property until the property is sold for other uses. Simply speaking, a farmer could defer up to a certain percent each year (as provincially legislated), until the land is developed for residential purposes. When such development takes place the deferred taxes would be paid by the developer, whether he

was a new owner or farmer subdividing his own land. The deferred taxes could be applied against the development cost of providing such services as schools, roads, sewers, utilities, and fire protection to the new residential area. This system would only be successful if assessors did not attempt to compensate for immediate tax losses from deferrals by assessing farm property at a higher level.

Over the past few years other systems of farm assessment have been suggested across Canada, "A system of farm assessment based on the land's agricultural productivity rather than on its market value"[12] was recommended in Ontario. If such a proposal were legislated, however, it would only result in inefficient land use as developers waited for the opportune moment to subdivide. Another recommendation made to Ontario's provincial government was for a "separate assessment of a farmhouse and the productive farm property".[13] In British Columbia the B.C. Federation of Agriculture has long demanded that school taxes be removed from all farm land zoned for agricultural use.[14] There have been many other proposed tax relief systems to accomplish a smooth flow of agricultural land into residential uses and the majority have been tabled in provincial legislatures or ignored. In summary, the most equitable and workable system would appear to involve some form of tax deferment -- the design and application of which

could form the subject matter of a possible research thesis.

Among the major conclusions of this study is the contention that, although land prices in the sampled areas have been increasing rapidly -- particularly since the early 1960's -- from the data collected there is no evidence to suggest that the actions of land speculators have made a significant contribution to these increases. Rather, a portion of this general price rise is probably attributable to the development process itself -- the actual increasing cost of providing improved services and facilities. If an organized growth pattern is not adhered to, scattered subdivision developments will naturally increase the service costs of water, sewer and paving, which are estimated and constructed by the lineal foot. With fragmented growth, these services may function only at a fraction of capacity, and eventual attempts to link poorly interrelated serviced areas are hampered by the inherent additional costs.

The greater portion of the general price rise accompanying development in the study area must be attributable to general factors of urbanization -- to the demographic forces which have increased the demand for land, (the demand

for land being derived from the demand for housing), and to the "... technological, sociologic, and economic forces which have permitted or caused great masses of people to spread out over a broad suburban area around the more compact central (city) of a previous period.".[15]

It is hoped that this study has cleared up some commonly-held misconceptions with respect to price changes in general and land speculation in particular. Speculators do not purchase land with the expectation of exerting monopolistic powers, but rather with the anticipation of future price increases. To the extent that their expectations are realised, they earn a profit, but in no way do they set the final price for their land holdings. The selling price of land is determined by the final use -- the ultimate demand for the developed property. In the absence of land investors, as Hamilton points out, "... the value of newly-developed homes would remain the same. The only difference is that the profits currently accruing to land investors would go either to the original owner of agricultural land or to the developer".[16]

Land speculators are often blamed for conditions which fall outside their sphere. For example, poor subdivision developments and premature conversion of agricultural land are

not indications that speculation itself is bad. Poor subdivision developments and premature farmland conversion imply poor public controls on land use. In many instances then, municipalities themselves are at fault for not exercising sufficient control over their land, and not the investors, developers or land speculators who are merely "playing by the rules". In fact, as a final note, there is a case for the economic and social justification of land speculation, as Samuelson and Scott outline:

> ... speculators can perform a social function, holding land off the market until its price rise reveals that, in a competitive situation, demand has become acute; inappropriate developments are thus prevented. Indeed, faced with this resolute behavior by speculators, many municipal authorities have sought a public "land bank" to enable them to perform -- for other, but not necessarily better, objectives -- essentially the same role.[17]

SUGGESTIONS FOR FURTHER RESEARCH

This section will briefly outline areas of possible further research, either using the assembled data in this study, or in related areas.

Within the confines of the present study further analysis of the data could be very worthwhile. A regression analysis of the data plus other inputs would help to determine how much of the increase in land prices is explained by variables such as per capita income, regional population, housing starts and mortgage rates. Results of such an analysis would probably support the general theory that population and income are the two prime determinants of land values. Studies by Maisel and Hamilton have already established the significance of this relationship.[18]

It would also be interesting to investigate the actual rates of return earned by land speculators. As a whole, it is felt that land speculation is not nearly as lucrative as many care to believe. Naturally, there are those who make windfall gains, but there are probably many more who barely earn enough -- particularly considering the risks involved -- and many who have lost considerable investments. It would be important to investigate not only the speculator who turned a large profit in a land transaction, but also the land owner who sold him the land in the first place, (was he ignorant of its potential value?), and the person who bought the land from the speculator, (why did he pay such a price?).

The question of speculative profits brings up another interesting area for possible further research. A speculative profit -- also termed the "unearned increment" or the "development value" of land -- is the difference between the price at which the investor sells his undeveloped land and the sum of his acquisition costs and his holding costs. Since the enhanced value of urban and suburban land is due largely to municipal planning, works and services, there is a case that the development value of such land should accrue to the community as a whole, not to private individuals. This is generally the reasoning that underlines the concept of "betterment". In its broadest sense, betterment is descriptive of that marginal value of land which is added to its existing value by the plans or enterprise of the community, or of persons other than the land-owner himself. While the principle of collecting for betterment is sound, investigations in this connection in Great Britain for more than 30 years indicate that problems associated with the measurement and collection of a betterment levy are almost insurmountable. There has been little, if any, related empirical research in the North American context, however.[19]

The essential problem requiring consideration is:

(1) When is it both practicable and desirable to levy some charge against persons made better off through the actions of municipal planning, (and conversely, the related problem of compensating those made worse off); and,

(2) How can this be accomplished?

However this problem is answered, it will ultimately affect the cost of much municipal planning activity and therefore exert an influence on the amount and type of planning that public agencies can afford to undertake. It is evident, then, that the problem relates to the allocation of resources as well as to the distribution of income and wealth. Furthermore, because the financial position of planning authorities is another factor determining what they can afford, the problem of local government finance is very much an integral part of the compensation-betterment problem. Consequently, any thorough analysis of this problem would necessarily involve consideration of a very wide range of issues.

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1. R. Harvey and W.A. Clark, "The Nature and Economics of Urban Sprawl", Land Economics, Vol. 16, No.1, February 1965, p. 3.

2. Edward Hall, "Facts, Factories and Farms", Agricultural Institute Review, Vol. 12, No. 4, July 1957, p. 18.

3. It is important to bear in mind during the ensuing discussion that it is not so much the desirability of agricultural land conversion as the timing of such conversions which is the cause for concern.

4. James E. Hartley, The Relation of Taxation to Services as a Technique to Prevent the Premature Conversion of Farmland, unpublished M.Sc. Thesis, Department of Community and Regional Planning, University of B.C., April 1963.

5. ibid, p. 41.

6. A.L. Crerar, "Land For Our Future", Community Planning Review, Vol. 9, No. 2, June 1959, p. 44.

7. John N. Jackson, et. al., The Impact of Highway Development on Land Use, Research Project, Report No. 1, School of Community and Regional Planning, University of B.C., June 1963.

8. The major source of conflict between transportation and land use is found in existing legislation:

> The planning of arterial and secondary highway routes in district municipalities and small cities is at present done by the provincial government through its Highways Department.... In cities of over 15,000 population such planning is a municipal responsibility. The district municipality therefore, unlike the city of over 15,000 population does not have its highway planning done by the same staff as does its land use planning; nor is the highway and traffic planning subject to review by the municipal council. (D.M. Churchill, Local Government and Administration in the Lower Mainland Metropolitan Community, A Report of the Metropolitan Joint Committee on Local Government, Vancouver, 1959, Vol. 1, p. 8)

The district municipalities contain the majority of agricultural lands and, therefore, come under this legislation. In essence this means that a major highway can be planned without reference to local land use needs, and to minimize so-called speculation the government will often keep the plans confidential even from the planning department of a district municipality. Furthermore, Provincial Government Committees formed to study future arterial highway requirements regard highways only as highways and it is not their responsibility, within terms of reference, to consider the impact of highway construction upon the use of land.

The best example of this lack of coordination between transportation and agricultural land use involves the construction of the Deas Island (George Massey) Tunnel. In 1955 a report was prepared by a technical committee recommending future crossings of the Fraser River at Annacis and Port Mann. This report indicated some appreciation of the strong link between transportation and land development by engineers:

> The Annacis and Port Mann Crossings ... would guide urban development into the Surrey Plateau which is high well drained and, has relatively poor soils. A Lower Fraser crossing would tend to stimulate development in West Delta which is low lying, subject to drainage problems, and contains some of the most productive lands in the region. The channelling of urban development into the higher land, which can be done without any significant loss of agricultural production and at a minimum cost from the point of view of urban development costs, is imperative from the regional point of view. (Technical Committee for Metropolitan Highway Planning, pps. 9-10)

The Deas Island Tunnel represents the complete disregard of this comprehensive engineering and planning advice by the Provincial Department of Highways resulting in "some of the most productive lands in the region" being converted to residential use as developers took advantage of increased accessibility which also represented the natural line of least resistance.

9. LMRPB of B.C., Economic Aspects of Urban Sprawl, New Westminster, 1956, p. 36.

10. William Heneberry, "Taxes Affect Land Use in Urban Fringe Areas", Journal of Soil and Water Conservation, Vol. 18, May/June 1962, p. 108.

11. ibid, p. 109.

12. The Toronto Globe and Mail, "Farm Tax Revision Studied in Ontario", June 6, 1969, p. B3.

13. ibid, November 11, 1969, p. B2.

14. See, for example, "Farmers Make Own Tax Survey", The Vancouver Sun, December 12, 1964, p. na.

15. Grace Milgram, The City Expands, The Institute of Environmental Studies, University of Pennsylvania, 1967, p. 131.

16. Stanley W. Hamilton, Price Movements in Undeveloped Land Facing Urbanization: A Micro Study, unpublished Ph.D. thesis in Business Administration, University of California, Berkley, 1970, p. 53.

17. Paul A. Samuelson and Anthony Scott, Economics, McGraw-Hill, Toronto, Third Canadian Ed., 1971, p. 991.

18. Sherman J. Maisel, "Price Movements of Building Sites in the United States: A Comparison Among Metropolitan Areas", Regional Science Association Papers, 1964, pp. 47-60; and Hamilton, 1970, op.cit.

19. Several years ago in the United States, in instances where private property values were enhanced by public actions, the cost was "... typically charged against each property in accordance with some formula which is presumed to distribute the burden in proportion to relative benefit." (R. U. Ratcliff, Real Estate Analysis, McGraw-Hill, Toronto, 1961, p.56) Termed a "special assessment", this was, in fact, a type of betterment levy, but the principle was abandoned due to administrative problems.

In Canada, the legal concept of "severence" could be considered as a method of collecting for betterment in some instances. For example, where a portion of a property is expropriated and the remainder increases in value as a direct consequence, the amount of this increase is deducted from the compensable payment. Thus, in a

sense, a betterment levy is collected. However, this method is limited only to property that has been directly involved in expropriation; there is no provision for collecting a betterment charge from neighbouring properties that may also have increased in value.

Finally, a note about the application of a capital gains tax on the question of betterment. The relevance of such a tax -- which would, in effect, be very similar to the British idea of taxing the "development value" of land -- can be readily appreciated. In order to be most effective in this context, however, the collection of a capital gains tax would have to be at the municipal level.

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APPENDICES

DATA COLLECTION CODING SHEET

I.D._____

1. Legal Description _____ D.L. _____ BLOCK _____ LOT _____ PLAN

2. Census Tract_____ Enumeration District _____

3. Zoning: year_____ Class____ year____ Class _____

   year_____ Class____ year____ Class _____

4. Lot Size or Acreage: _____

5. If Developed, Date: _____month/year

6. Services Provided: _____month/year

7. Travel Time to CBD (V) _____ CBD (S) _____

   School _____

   Shopping Centre_____

8.

Date of Sale	Document Number	Type of Trans-action	Type of Owner	Sale Price ($ Land)	Mortage Data

APPENDIX "B"

LOCATION AND FLOOR SPACE OF MAJOR RETAIL SHOPPING AREAS OUTSIDE CENSUS TRACT NO. 5
(KEYED TO FIGURE)

Map Ref. Number	Location	Floor Space (Sq. Ft.)
1	Mayfair - 3100 block Douglas	249,600
2	Quadra & Hillside	53,800
3	Hillside Centre - 1600 block Hillside Avenue	273,640
4	Fort & Foul Bay Road	29,700
5	Fairfield Plaza - 1500 block Fairfield Road	20,400
6	200 block Cook Street	29,800
7	Menzies & Simcoe	17,100
8	Esquimalt Plaza 1100 block Esquimalt Road	34,400
9	Head & Esquimalt Road	25,300
10	Constance & Esquimalt Road	39,000
11	Gorge & Tillicum	21,200
12	Burnside & Harriet	24,000
13	Burnside & Tillicum	25,100
14	Town & Country - 3500 block Douglas Street	251,075

Map Ref. Number	Location	Floor Space (Sq. Ft.)
15	3200-3300 blocks Douglas	38,900
16	Quadra & Cook	37,200
17	Shelbourne Plaza - Shelbourne & Cedar Hill Cross Road	50,300
18	Cadboro Bay Village - Cadboro Bay Road and Sinclair	21,100
19	Royal Oak Centre - West Saanich Road	22,300
20	Cordova Bay - Cordova Bay Road & Doumac Avenue	12,100
21	Estevan & Dunlevy	15,600
22	Oak Bay Avenue	53,900
23	University Heights Shelbourne & McKenzie	131,000
	TOTAL	1,476,515
Other Areas Not Indicated On Map:		
	Colwood Plaze - Sooke Road & Goldstream Avenue	57,000
	Langford - 700 block Goldstream	10,500
	Sooke - West Coast Road & Otter Point Road	11,800
	Sidney - Beacon Avenue	87,500

	Location	Floor Space (Sq. Ft.)
Other Areas Not Indicated On Map (Cont'd)		
	Brentwood - West Saanich Road & Verdier Avenue	11,600
	TOTAL	178,400
	GRAND TOTAL	1,654,915

Source: Planning Department, Capital Region District

APPENDIX "C"

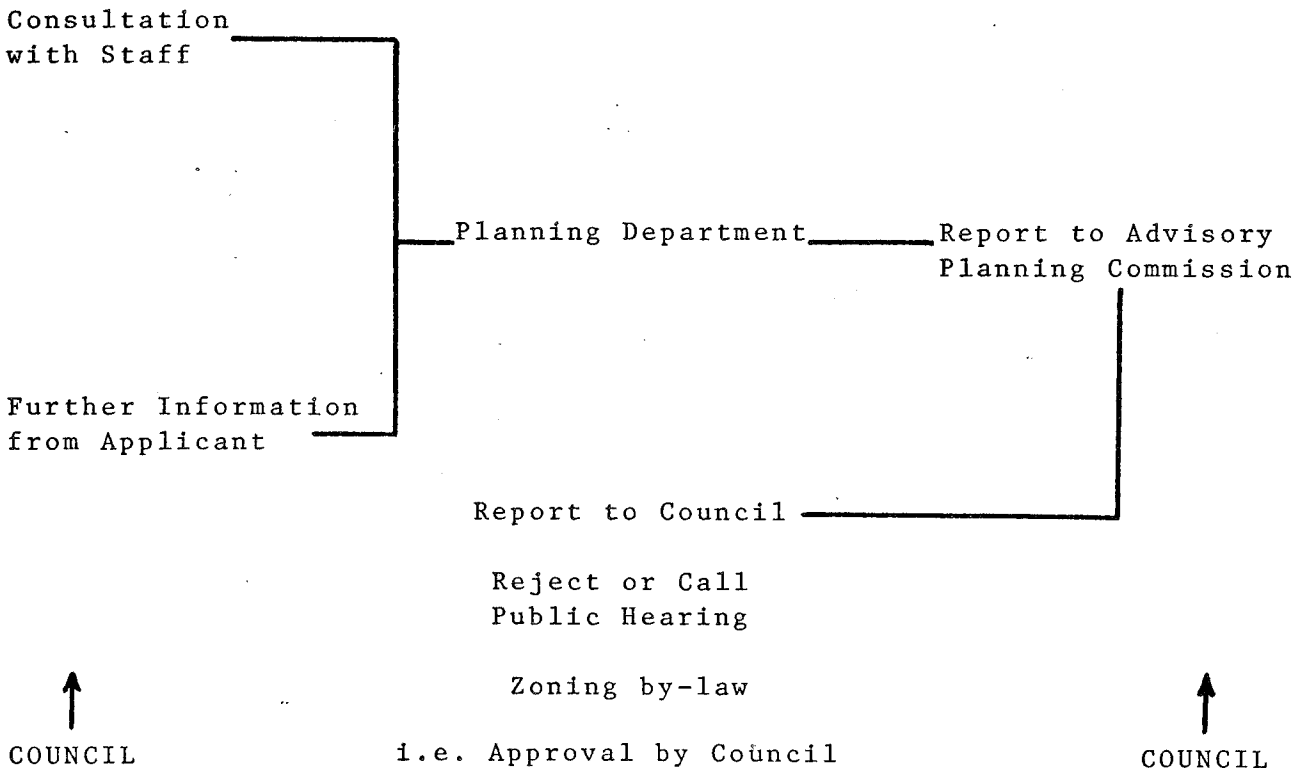
REGULATION OF PRIVATE DEVELOPMENT IN SAANICH

Summary of Procedure

STAGE 1 — WHERE EXISTING ZONING WILL NOT ACCOMMODATE PROPOSED DEVELOPMENT

Preliminary Consultations with Staff

Submission of Application to rezone to Council



STAFF ↓	WHERE EXISTING ZONING WILL ACCOMMODATE PROPOSED DEVELOPMENT	STAFF ↓
	Consultation with Staff	
	Submission of Development Plans to Planning Department	
STAGE 2	Approval of Planner (Development Permit) if in conformance with Land use requirements	
	Submission of Building plans together with Development permit to Building Dept.	
STAGE 3	Approval of Development Engineer if in conformance with building regulations	
STAGE 4	Site inspection to ensure compliance with Development plan (consultation with Planning) and building requirements, and issue of Occupancy permit	

Source: Planning Department, Municipality of Saanich, Annual Report 1967, Appendix I.

APPENDIX "D"

SUMMARY TABLES FOR GRAPHS IN CHAPTER VI

Table 5

NUMBER OF SALES OF SUBDIVIDED LOTS BY SAMPLE AREA

Year	Sample Area A	C	D	A, C, D
1949	13	30	16	59
1950	13	15	18	46
1951	16	16	4	36
1952	9	21	15	45
1953	23	31	12	66
1954	18	40	26	84
1955	25	37	16	78
1956	24	32	12	68
1957	19	25	11	55
1958	19	38	32	89
1959	23	24	56	103
1960	19	25	21	65
1961	14	19	14	47
1962	9	34	18	61
1963	14	23	51	88
1964	13	15	46	74
1965	28	34	55	117
1966	14	19	49	82
1967	27	23	49	99
1968	14	65	33	112
1969	7	46	10	63
1970[1]	2	16	1	19
TOTAL	373	628	565	1,556

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 6

NUMBER OF SALES OF ACREAGE PROPERTY BY SAMPLE AREA

Year	Sample Area A	B	C	A, B, C
1949	2	9	1	12
1950	1	7	2	10
1951	1	2	1	4
1952	2	2	-	4
1953	2	4	1	7
1954	1	6	1	8
1955	-	6	2	8
1956	1	6	3	10
1957	3	4	1	8
1958	6	6	1	13
1959	5	3	3	11
1960	3	4	1	8
1961	-	6	1	7
1962	-	4	2	6
1963	1	6	2	9
1964	2	2	1	5
1965	-	2	-	2
1966	2	3	2	7
1967	2	1	5	8
1968	2	7	1	10
1969	4	1	-	5
1970[1]	-	-	-	-
TOTAL	40	91	31	162

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 7

NUMBER OF UNIMPROVED LOTS DEVELOPED BY SAMPLE AREA

Year	Sample Area A	B	C	A, B, C
1949	9	10	30	49
1950	11	23	21	55
1951	6	10	21	37
1952	8	10	21	39
1953	6	14	24	44
1954	4	18	13	35
1955	15	23	31	69
1956	10	22	20	52
1957	11	17	19	47
1958	12	36	24	72
1959	13	28	39	80
1960	3	4	29	36
1961	3	21	21	45
1962	4	20	14	38
1963	6	12	51	69
1964	8	11	27	46
1965	5	16	53	74
1966	5	22	45	72
1967	8	17	51	76
1968	11	35	59	105
1969	4	55	27	86
1970[1]	5	24	11	40
TOTAL	167	448	651	1,266

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 8

NUMBER OF ACREAGE PROPERTIES DEVELOPED BY SAMPLE AREA

Year	Sample Area A	B	C	A, B, C
1949	1	9	-	10
1950	1	2	5	8
1951	2	5	3	10
1952	1	2	2	5
1953	-	3	-	3
1954	-	3	2	5
1955	-	3	-	3
1956	-	5	3	8
1957	-	4	1	5
1958	1	15	-	16
1959	1	5	1	7
1960	1	3	1	5
1961	-	2	1	3
1962	-	3	-	3
1963	-	1	1	2
1964	-	1	2	3
1965	3	5	-	8
1966	-	5	3	8
1967	-	2	3	5
1968	1	2	1	4
1969	3	1	-	4
1970[1]	3	1	-	4
TOTAL	18	82	29	129

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 9

NUMBER OF ACRES AND AMOUNT OF ACREAGE PROPERTY DEVELOPED AND SOLD IN THE STUDY PERIOD

Year	Acreage Property Undeveloped	Acreage Property Developed	Number of Acres Sold	Number of Acres Developed
1949	184	63	64.30[1]	110.99[1]
1950	175	9	10.38	11.16
1951	167	8	12.10	9.83
1952	162	5	16.66	9.89
1953	158	4	13.79	7.99
1954	152	6	45.27	7.28
1955	147	5	19.25	39.18
1956	139	8	31.41	44.53
1957	134	5	20.81	20.48
1958	117	17	19.93	21.28
1959	110	7	35.76	22.80
1960	106	4	19.64	6.24
1961	103	3	8.19	3.67
1962	101	2	22.93	3.81
1963	99	2	15.28	4.68
1964	96	3	15.93	6.87
1965	90	6	2.97	11.48
1966	82	8	19.63	12.34
1967	78	4	35.09	18.19
1968	74	4	24.98	13.57
1969	71	3	8.95	6.40
1970[2]	67	4	0.00	9.17
TOTAL		180	463.25	401.83

[1] These figures represent the amounts in or before 1949.

[2] Data only includes first six months of 1970.

Source: Analysis of sample data

Table 10

AVERAGE SALES PRICE PER 100 SQ. FT.
FOR UNIMPROVED LOTS BY SAMPLE AREA

Year	Sample Area A	B	C	A, B, C
1949	18	14	12	17
1950	7	21	16	16
1951	15	27	5	20
1952	33	11	20	21
1953	26	19	11	22
1954	24	21	28	27
1955	22	20	15	23
1956	42	30	24	36
1957	17	35	14	27
1958	29	11	14	16
1959	29	25	20	25
1960	29	18	21	23
1961	50	17	18	27
1962	23	20	20	24
1963	23	20	25	24
1964	36	21	28	29
1965	64	38	52	54
1966	15	48	52	49
1967	44	42	53	48
1968	43	52	69	58
1969	46	60	66	61
1970[1]	85	72	109	76

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 11

AVERAGE SALESPRICE PER 100 SQ. FT.
FOR UNIMPROVED LOTS BY SAMPLE AREA
(INDEXED)

Year	Sample Area A	B	C	A, B, C
1949	100	100	100	100
1950	43	141	131	97
1951	83	186	39	120
1952	184	78	160	126
1953	147	131	93	131
1954	134	143	222	162
1955	123	135	124	139
1956	235	205	191	213
1957	94	239	111	163
1958	161	75	115	99
1959	161	170	157	148
1960	165	121	168	140
1961	279	115	144	163
1962	132	136	156	143
1963	128	137	199	145
1964	200	143	226	171
1965	358	255	411	319
1966	88	325	411	294
1967	246	284	418	288
1968	243	351	543	344
1969	255	407	519	360
1970[1]	472	489	852	450

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 12

CMHC INDEX OF LAND COSTS[1]

Year	Index of Cost	Year	Index of Cost
1949	100.0	1960	359.2
1950	127.1	1961	373.4
1951	156.8	1962	385.8
1952	179.5	1963	409.7
1953	179.3	1964	428.2
1954	254.3	1965	428.6
1955	272.1	1966	457.5
1956	303.3	1967	480.2
1957	343.8	1968	511.0
1958	374.9	1969	551.61
1959	376.3		

[1]Base year: 1949.

Source: Canadian Housing Statistics, 1968 Table 80, 1969 Table 86, Central Mortgage and Housing Corporation

Table 13

NUMBER OF SALES OF SUBDIVIDED LOTS
BY ZONING CLASSIFICATION

Year	Zoned Residential	Zoned Commercial	Zoned Other
1949	10	39	10
1950	3	39	4
1951	10	24	2
1952	5	32	8
1953	10	46	10
1954	17	61	6
1955	13	58	7
1956	7	56	5
1957	14	32	9
1958	11	72	6
1959	13	83	7
1960	17	38	10
1961	8	36	3
1962	7	54	-
1963	5	77	6
1964	13	55	6
1965	19	84	14
1966	12	67	3
1967	11	74	14
1968	29	68	15
1969	21	39	4
1970[1]	8	9	2
TOTAL	263	1,142	151

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 14

NUMBER OF SALES OF ACREAGE PROPERTY
BY ZONING CLASSIFICATION

Year	Zoned Residential	Zoned Commercial	Zoned Other
1949	1	5	6
1950	1	6	3
1951	-	1	3
1952	-	2	2
1953	2	2	3
1954	-	4	4
1955	1	3	4
1956	1	4	5
1957	2	3	3
1958	3	2	8
1959	-	5	6
1960	2	-	6
1961	1	2	4
1962	1	-	5
1963	1	-	8
1964	-	1	4
1965	-	1	1
1966	-	3	4
1967	-	1	7
1968	3	2	5
1969	1	3	1
1970[1]	-	-	-
TOTAL	20	50	92

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 15

RELATIONSHIP OF LAST SALE TO (DEVELOPMENT (YEAR - I), FOR SUBDIVIDED LOTS

Year	I=0	I=1	I=2	I=3	I>3
1949	4	7	4	2	-
1950	5	7	2	4	1
1951	1	4	8	4	2
1952	5	4	4	4	1
1953	7	14	-	4	2
1954	6	3	3	2	5
1955	11	17	6	1	-
1956	20	10	2	-	2
1957	6	12	3	1	2
1958	28	6	5	5	3
1959	26	20	4	1	3
1960	13	11	-	-	-
1961	24	9	1	-	-
1962	23	4	-	1	4
1963	36	6	-	-	5
1964	22	16	-	1	4
1965	31	18	8	1	-
1966	33	16	-	2	5
1967	40	14	7	-	1
1968	39	25	-	2	3
1969	31	18	1	2	4
1970[1]	10	7	1	1	3
TOTAL	421	238	59	38	50

[1]Data only includes first six months of 1970.

Source: Analysis of sample data

Table 16

RELATIONSHIP OF LAST SALE TO (DEVELOPMENT YEAR - I), FOR ACREAGE PROPERTIES

Year	I=0	I=1	I=2	I=3	I>3
1949	2	2	-	1	-
1950	2	-	-	1	-
1951	1	1	-	-	2
1952	1	-	1	-	1
1953	-	-	-	1	1
1954	-	1	1	-	1
1955	1	2	-	-	-
1956	4	1	-	-	-
1957	-	1	-	1	1
1958	-	-	-	-	-
1959	2	1	1	-	-
1960	-	1	-	1	1
1961	1	-	-	-	1
1962	1	1	-	-	-
1963	-	1	-	-	-
1964	1	1	1	-	-
1965	-	1	-	-	-
1966	2	1	-	-	2
1967	-	-	-	-	1
1968	3	-	-	-	-
1969	1	-	1	-	1
1970[1]	-	2	2	-	-
TOTAL	22	17	7	5	12

[1]Data only includes first six months of 1970.

Source: Analysis of sample data