

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

by

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ABSTRACT

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The established trend of increasing raw land values, combined with a forecast of this pattern to continue, is both reinforcing and perpetuating general opinions with respect to the causes of the unit price increase of raw land. Specifically, the stigma attached to the term "land speculation" is rapidly increasing. The existence of these circumstances makes it imperative to identify the motives initiating 'speculative activity' involving undeveloped land in order to either substantiate the basis for the growing criticism of so-called "speculators" or disprove, with empirical evidence, the concepts on which the misconceptions of speculation and the resulting criticism are founded. Consequently, following a general discussion of existing attitudes toward land in North America and the presumed effects of land speculation, this study attempts to establish empirically to what extent speculation in

undeveloped land exists in the City of Kamloops, its causes and actual effects on the unit price of raw land.

The study incorporates in its framework an extensive review of existing related literature under the general heading of "Land Speculation - A General Discussion". The purpose of this section of the study (Chapter II) is to identify and summarize varied observations documented by several authors who have both supported and rejected basic misconceptions with respect to land speculators. In addition, Chapter II provides a useful basis for comparing the personal observations of reviewed authors with the subsequent actual results of the analysis.

The primary objective of the study is to measure the changes in raw land values from 1949-1970 in the City of Kamloops, and to rationalize these changes in terms of market behaviour. The approach used in an effort to achieve this objective is a time series analysis to isolate the causes contributing to changes in raw land values and as a result recreate the market behaviour of raw land sales in the intertemporal period.

The subject of the analysis and primary source of data, is the City of Kamloops, exclusive of the unincorporated districts contiguous to the City's boundaries. Due to the economic substitutability of land use, it would have been more desirable to include the contiguous unincorporated areas; however, this was impossible as the required data was

unavailable. The sales data is derived from a sample of 620 properties representing ten percent of the total population of legally defined parcels. The sample was obtained by extending two rays to the City's perimeter from a pre-determined origin. The origin was chosen after completing an analysis of demographic and land use data in order to establish the most appropriate areas for the study. A third line was extended across the area which presently reflects the greatest concentration of new residential growth.

The information requirements for each sample parcel, acquired from Land Registry Titles and Assessment Cards, were designed to reflect the type and number of bona fide transactions, price trends, land turnover rates, holding time, and pattern of development in each sample area from 1949-1970. It is important to note that the data input derived for Sample X (North Kamloops) is representative of an area which developed almost completely in the absence of subdivision controls while, in comparison, the data collected for Sample W (Sa-Hali) conversely represents an area which is presently developing under rigid municipal control. The importance of this factor is reemphasized in the analysis of the data and ensuing conclusions. It should also be noted in this connection that when the sample areas were chosen the researchers were unaware of the areas where development controls have been legislated and this factor did not prejudice the extensive data

collection process.

The significant areas of investigation directly relate to a widely quoted definition of the concept of speculation stating that land speculation is "the holding of land out of use pending its sale at a higher price". Comprehensive data indicates generally for the City of Kamloops whether land is being held off the market and if so by whom and for what holding periods. It also establishes a pattern of growth, price trends for residential lots, and relates to what degree accessibility dictates a pattern of growth.

The analysis strongly supports a general conclusion that in the historical growth of Kamloops excessive speculation in undeveloped land, either as previously defined or conversely represented by a premature conversion to a higher use, has occurred predominantly in the absence of legislated subdivision controls resulting in inferior subdivisions and urban sprawl. That is, speculation in itself has only been detrimental to the raw land market in Kamloops in the absence of legislative controls available to the Civic government as empowered by the Municipal Act of British Columbia.

PREFACE

This study is part of a large research project undertaken for the Union of British Columbia Municipalities (UBCM). Originally intended to investigate 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 speculation."

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

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

ACKNOWLEDGEMENT

This study did not merely commence of its own accord. The author would like to especially acknowledge the guidance of Professor Stanley W. Hamilton, who provided his assistance and experience in initiating the study, in organizing the processes concerned with the data collection, and in guiding the analysis and interpretation of the data. The data has been collected in confidence and with gratitude to the Assessor of the City of Kamloops, Mr. William Headon. I am also indebted to Sebius Doedel, who created the computer program, and to fellow students, notably Mr. George Kropinski and Miss Gaye Cummings, for their assistance in collecting and compiling the data.

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CHAPTER I

INTRODUCTION

Significance of the Study

Coinciding with the continuing expansion of the territorial limits of urban areas is the availability of an increasing volume of literature written by both economists and laymen, attempting to explain the varied catalysts of 'urban sprawl' and the substantial unit price increase in land values. To date, a great deal of the present reasoning related to changing land values is based on conjecture and simple economic assumptions, and only a minimal amount of investigation, in the form of empirical research, has been performed to either substantiate or disprove widely stated opinions. Although the validity of several accepted assumptions is continually argued among land economists it could be concluded, after a review of the related articles and a consensus of public opinion, that there is growing assent to the fact that so-called 'land speculation' is largely responsible for the 'excessive' increases in the value of undeveloped land. As a result, land speculators

are becoming increasingly labeled as 'undesirables' in the land market and blamed for distorting the price of undeveloped land and for causing the premature conversion of agricultural land to residential use on the urban fringe. It is unquestionable that the relative costs of undeveloped land have increased but in the absence of reliable data one should not be too quick to single out 'speculation' as a major cause of price increases without first examining the forces which motivate speculators in the raw land market.

As stated in Chapter II, Barlowe gives a general definition of "land speculation" as "any holding of landed property with the hope that it can be later sold at a profit"¹. Generally, economists agree that speculation in commodities where the supply can be increased in relation to the demand is beneficial in the long run, creating both price equilibrium and a better allocation of resources. However, with respect to land, where the physical supply is fixed, competition among sellers is viewed as detrimental in comparison to other commodity markets. Some authors support this argument by stating the demand for land is always ahead of the supply; however, this is a very questionable conclusion and one whose assumptions require a detailed analysis. Although the physical supply of land is fixed, one must consider its economic supply and the alternate use of individual sites. Each competitor for a vacant site has a different set of future expectations and demands for compensation in buying and selling land as a commodity. Related to these

expectations is a need to examine existing subdivision and land use controls which provide the limits in which these expectations and compensations can be satisfied. That is, if excessive speculation occurs possibly it is because there is complete independence of decision among competitors in dictating a site's future use which is exercised in the absence of legislated controls. In the case where controls do exist, the intent of these regulations must be examined to establish whether they are actually controlling growth or motivating urban sprawl.

In summary, the study will question the widely accepted premise that "speculation leads to a waste of a valuable resource..."¹ by examining the variables which contribute to and motivate the often criticized activities of 'land speculators'.

Purpose of the Study

The purpose of this study is to determine by empirical research the effects of predefined speculative activity in the land market by isolating the causes contributing to changes in raw land values. This will require re-creating the market behaviour of undeveloped land sales in a time series analysis in an urban area realizing that historically each city is physically shaped by different processes. This primary objective will involve an extensive data collection process in order to construct a

reliable sample from which conclusions can be stated. As outlined in the review of the literature in Chapter II, there exists diverse opinions with respect to the nature and effects of land speculation and the study will attempt to verify or disprove, by analysis of the sample, the basis of these assumptions and opinions. It is possible that many presently accepted assumptions with respect to land speculation spring from basic misconceptions about land as a commodity and specifically the nature and function of land speculation. In an attempt to contribute to a knowledge of the operation of the raw land market, the study collectively will combine a review of present thought on land speculation, as documented in available literature, with an analysis of undeveloped land sales in an urban area and suggested methods for controlling land use. It is not the purpose of the study to solely outline the growth pattern of one urban area, namely Kamloops, British Columbia, but rather to use the historical evidence acquired from data relating to Kamloops to provide a basis from which to formulate general objective conclusions as to the effects of land speculation on undeveloped land sales in urban areas.

Chapter Organization

Following the definition of 'land speculation', Chapter II extensively reviews much of the available literature relating to the topic of "Land Speculation" under five general subheadings:

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.

First, a reasonable case is put forward to support a general acceptance by economists of speculation in other commodity markets and reasons for their exclusion of land due to its limited physical supply. In contrast, it is then shown that North Americans still basically adopt the attitude that land is limitless combined with a general unconcern for the rate at which land is consumed. Thirdly, the varied presumed effects of land speculation are presented as summarized from the writings of several authors considered to be prominent in this field. Fourthly, the discussion of Chapter II explains the context of the development stage in fringe areas in relation to the five stages in the land cycle. Finally, three basic misconceptions, as related to land speculation, are outlined in detail providing a useful background against which to undertake the subsequent analysis.

The next chapter outlines the objectives of the study and the method of data collection used in the time series analysis. The chapter also contains a brief history and description of the Land Registry System (Torrens System) and explains the importance of its operation as well as the importance of access to property assessment cards in facilitating the collection of the required information. The data collection process required completing a separate information sheet for each sample parcel and the chapter examines the selected variables used and reasons for their inclusion in attempting to satisfy the primary objectives of the study. Finally, the sampling procedure is outlined explaining what was considered as the most effective way to delimit the sample of approximately ten percent of the total population of legally defined properties.

Chapter IV outlines the historical growth pattern of the study area and surrounding Metropolitan Region under three separate subheadings. This division is advantageous due to the fact that prior to January 1, 1968 the City of Kamloops did not include the Town of North Kamloops and also the study area excludes land sales of properties in the contiguous unincorporated districts surrounding the present City limits. As a result, the discussion initially examines the City's growth prior to amalgamation and includes a brief description of Sa-hali (Ray W), situated in the southwestern sector of the City. The second subsection describes the growth of North Kamloops, which

essentially represents the area traversed by Ray X and Ray Y, and outlines population growth, construction activity since 1951 and the effects of a change in the transportation pattern. Thirdly, an extensive discussion, based on research completed by the Thompson Valley Regional Planning Board, outlines the recent growth of the unincorporated districts adjacent to the present boundaries of the City of Kamloops. It is important to understand the relationship of these districts to the study area as they represent an alternate residential site to properties situated in the sample area. This fact is evidenced by the "pocket" sprawl which is occurring in some of these areas at the present time. It was originally intended to include properties in these contiguous districts in the sample; however, it was impossible to acquire the necessary information from available records.

Chapter V, the analysis chapter, begins with an explanation of the rationale used to segregate the voluminous data into categories in order to be able to compare and evaluate the sales characteristics of undeveloped properties. The analysis itself briefly considers the sales characteristics of the minimal number of acreage properties (Property Type I) in the sample for which adequate information was obtained. It was fully realized, before commencing this initial part of the analysis, that insufficient information had been acquired from which to formulate conclusions for acreage sales. However, it is hoped that a concise

analysis of the available acreage parcels will illustrate the basis on which conclusions could be formulated, given an acceptable sample. The analysis chapter, therefore, emphasizes the characteristics of the sales of individual lots (Property Type II) in Sa-hali and Kamloops North. The two samples are discussed both individually and collectively and the observations form the basis for the ensuing conclusions.

However, prior to stating the conclusions, Chapter VI summarizes, by basically reviewing available literature, the concepts 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; and
4. Methods of controlling land use.

The primary objective of the chapter is to illustrate a range of controls allowing for various degrees of public intervention and designed to improve, not replace, the private sector. This is accomplished by describing the options available for land use control which range from "laissez-faire" at one extreme, to the public ownership of land at the other extreme.

Finally, the conclusions to the study are presented in Chapter VII, based on the preceding analysis of the

data, and subsequent proposals are suggested to control the supply of new residential lots on the urban fringe. In addition, the final chapter includes several comments relating to the general discussion developed in Chapter II and Chapter VI. These comments both support and criticize the basis of existing accepted concepts which reflect the presumed effects of 'land speculation'.

REFERENCE

1. Raleigh Barlowe, Land Resource Economics, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1958, page 227.

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 continued 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 speculator, 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 sale 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 holding 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 lesser 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 time period. 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 than 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 he incurs - which include, of course, the wages necessary to keep him 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 Delafous, "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 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 story praised speculators as the "...new kind of Canadian mini-tycoon, men of limited incomes who are living

quite literally off the fat of the land".¹⁹

The foregoing section has briefly summarized what has been the traditional attitude to developing land 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 is 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 organised 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 area 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, particularly 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 function of communities. Fagin states that because co-ordination of planning involves both space and time, 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

<u>Area</u>	<u>Lots Platted</u>	<u>Lots Not Used</u>	<u>Proportion Not Used</u>
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 has 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 sequence of subdividing land determines "...whether linear 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 any 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 pre-dominance 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 on 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 affects 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.

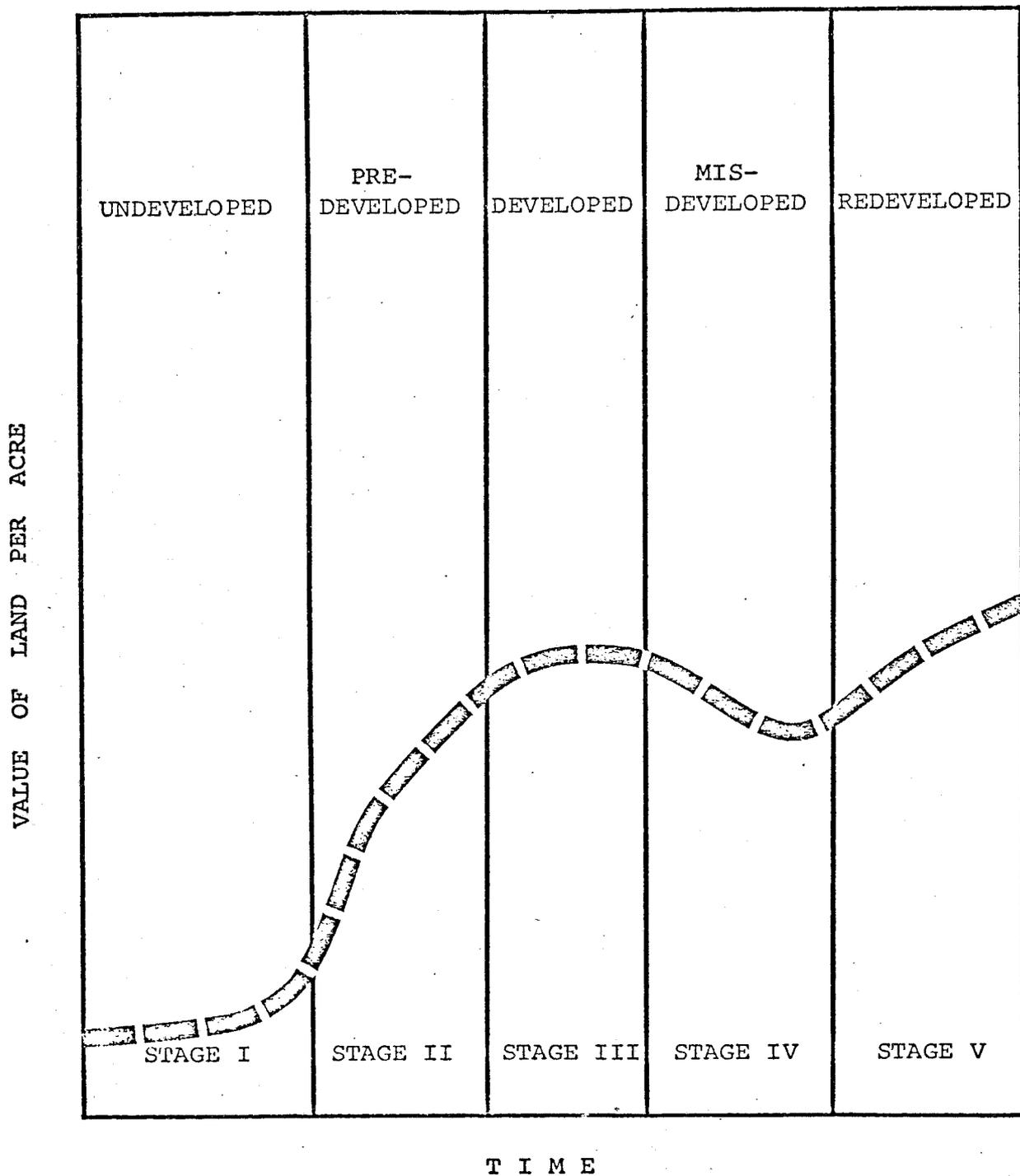
The Market for Undeveloped Urban Fringe Land

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) re-development. In the context of this study, however, only the

Figure I
LIFE CYCLE OF LAND VALUES



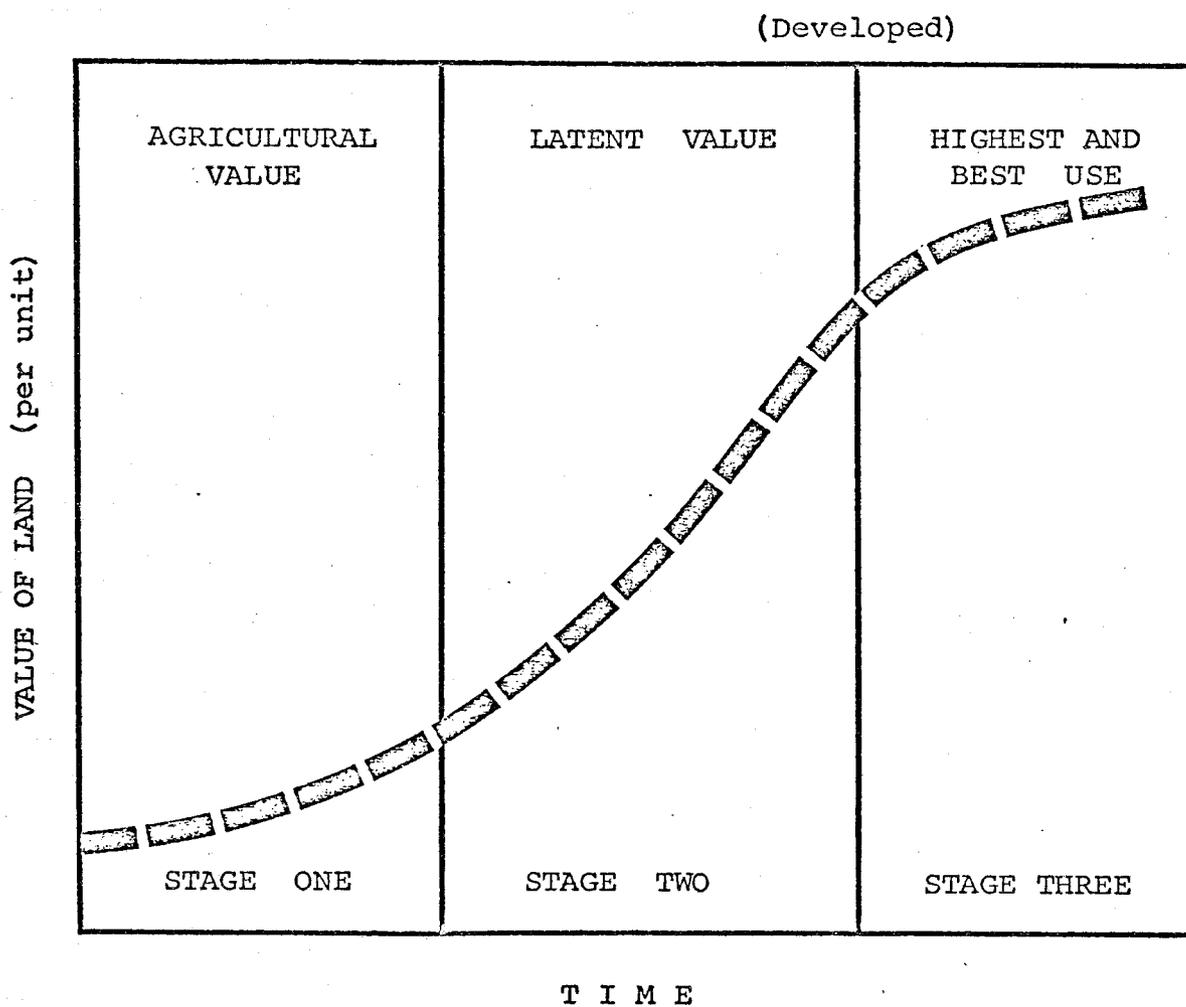
Source: R.B. Ricks and J.F. Weston, "Land As a Growth Investment", Financial Analysts Journal, Vol. 22 Jul /August 1966, p. 70.

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 I 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:

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

Figure II
STAGES OF LAND VALUES



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

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 the 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 simple equations serve to summarize the three stages of land values and the conditions defining the boundaries:⁵⁷

$$\text{Stage One:} \quad \text{AMV}_{it} \geq \text{PMV}_{it}$$

$$\text{Stage Two:} \quad \text{AMV}_{it} \geq \text{PMV}_{it} \geq (\text{DMV}_i - \text{CD})_t$$

$$\text{Stage Three:} \quad (\text{DMV}_i - \text{CD}) > \text{PMV}_{it}$$

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. Referring 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 monopolist 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; he 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 Chapter succeeding the analysis.

REFERENCES

1. Angus N. MacKay, "Land Speculation - A Comment", Plan, Vol. 6, No. 2, December 1965, p. 83.
2. Raleigh Barlowe, Land Resource Economics, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1958, p. 227.
3. loc. cit.
4. Paul A. Samuelson and Anthony Scott, Economics, McGraw-Hill Co. of Canada, Toronto, 1966, p. 461.
"Arbitrager" is the term commonly applied to those who speculate in financial markets.
5. C.E. Elias, Jr., and James Gillies, "Some Observations on the Role of Speculators and Speculation in Land Development", U.C.L.A. Law Review, Vol. 12, No. 3, March 1965, p. 789.
6. An ancient joke used by commodity specialists illustrates this point: A speculator in soybeans miscalculated and was unable to dispose of his lot of soybeans. Thinking to salvage something from the wreckage of his hopes, the hungry speculator opened a can of soybeans for dinner. There was nothing in the can. A wise and older speculator in soybeans commented: "You see, there are soybeans for eating and soybeans for trading". (Elias and Gillies, p. 790)
7. Samuelson and Scott, op. cit., p. 454.
8. MacKay, op. cit., p. 83.
9. Elias and Gillies, op. cit., p. 789.
10. MacKay, op. cit., p. 83.
11. cited by Robert C. Weaver, "National Land Policies - Historic and Present", U.C.L.A. Law Review, Vol. 12, No. 3, March, 1965, p. 719.
12. John Delafons, Land-Use Controls in the United States, The M.I.T. Press, Cambridge, Mass., 1969, p. 4.
13. Richard M. Yearwood, "Land Speculation and Development - American Attitudes", Plan, Vol. 9, No. 1, March 1968, p. 16.

14. Delafons, op. cit., p. 4.
15. ibid, p. 3.
16. Yearwood, op. cit., p. 16.
17. Delafons, op. cit., p. 4.
18. Jon Ruddy, "You Too Can Be a Land Speculator", Macleans, Vol. 18 No.1 , January 1968, pps. 22-24, 40-41.
19. ibid, p. 23.
20. Yearwood, p. 22.
21. R.W.G. Bryant, "Reply to Mr. MacKay", Plan, Vol. 6, No. 2, December 1965, p. 93.
22. ibid, p. 94.
23. Delafons, op. cit., p. 12.
24. Yearwood, op. cit., p. 17.
25. "The Scarcest Commodity", The Economist, Vol. 195, No. 6096, June 25, 1960, pps. 315-16.
26. Frank Fogarty, "Land: A New King of Boom", Architectural Forum, February, 1957, p. 101.
27. William Lean, Economics of Land-Use Planning: Urban and Regional, The Estates Gazette, London, 1969, p. 9.
28. loc. cit.
29. American Society of Planning Officials, cited by Yearwood, op. cit., p. 15.
30. William H. Whyte, "Urban Sprawl", Fortune, January 1958, p. 102.
31. loc. cit.
32. loc. cit.
33. Yearwood, op. cit., p. 22.
34. Henry Fagin, "Regulating the Timing of Urban Development", Law and Contemporary Problems, Vol. 20, No. 2, Spring, 1965, p. 298.

35. Robert E. Merriam, The Subdivision of Land, American Society of Planning Officials, Chicago, 1952, p. 1.
36. loc. cit.
37. loc. cit.
38. Elridge Lovelace, "North Vancouver - Being an Example of Excess Land Subdivision"; Landscape Architecture, Vol 40, No. 1, 1948, pps. 69-71.
39. For a discussion see Harry Gregson, A History of Victoria 1842-1970, The Victoria Observer Publishing Co., Victoria, 1970, Chapter 16, "The Great Land Boom", pps. 189-209.
40. Kevin J. Cross, Residential Land Subdivision: A Physical Evaluation, Community and Regional Planning Studies, University of B.C., Staff Research Project 2, 1965, pps. 13-14.
41. Merriam, op. cit., p. 2.
42. Richard F. Muth, "Urban Residential Land and Housing Markets", Issues in Urban Economics, Harvey S. Perloff and Lowden Wingo, Jr., eds. p. 315.
43. Adapted from Fagin, op. cit., pps. 300-302.
44. ibid, p. 300.
45. loc. cit.
46. ibid, p. 301.
47. ibid, p. 302.
48. Yearwood, op. cit., p. 19.
49. Cornick, Premature Subdivision, cited by Yearwood, op. cit., p. 22.
50. 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.
51. R. Bruce Ricks, and J. Fred Watson, "Land as Growth Investment", Financial Analysts Journal, Vol. No. July/August 1966, pp. 69-78.

52. Hamilton, op. cit., pps. 44-45. The ensuing discussion draws extensively on this source.
53. ibid., p. 47.
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.
55. Hamilton, op. cit., p. 47.
56. Ricks and Weston, op. cit., p.
57. from Hamilton, op. cit., p. 48.
58. MacKay, op. cit., p. 88-89.
59. H.J. Davenport, The Economics of Enterprise, The MacMillan Co., New York, 1913, p. 169; cited by Ratcliff, Urban Land Economics, McGraw-Hill, New York, 1949, p. 282.
60. Hamilton, p. 50-52.
61. ibid., p. 51.
62. MacKay. op. cit., p. 89.
63. Richard U. Ratcliff, Urban Land Economics, McGraw-Hill, New York, 1949, p. 283.
64. MacKay, op. cit., p. 84.

CHAPTER III

SCOPE AND METHODOLOGY OF THE STUDY

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 Kamloops and to rationalize them in terms of market behaviour.

Market behaviour inherently involves an activity which has been termed or labeled 'land speculation'. Chapter II discussed the nature of land speculation and its apparent effects on the land market. 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, this definition of speculation is responsible for both the increase in the price of raw land, and the discontinuous fragmented growth pattern ("urban sprawl") of Kamloops.

A suggested cause of urban sprawl, and the resulting increase in raw land cost, is the independence of decision 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 usually called speculators and some earlier cited authors have positively linked rising land costs, premature subdivisions, and an excess of building lots with speculation. 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 Therefore, the research 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 speculation pattern. Public policy has definitely supported 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 in completable units which will not extend beyond one, or a maximum three, building seasons. Also, has speculation contributed to increased service costs of electricity, water and sewerage disposal, and paving which are constructed by the lineal foot, and which with fragmented growth 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 when it is ready for development, resulting in pockets of growth, who is responsible for this action? That is, are individuals, real estate agencies, construction companies, or other corporate developers holding land off the market in anticipation of their opportune moment of subdivision?

Directly related to changes in raw land prices are supplementary questions to 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-two year period to a base year it is possible to

derive the net effect.

An additional area of analysis involves the pattern of development of vacant land in the City of Kamloops since 1949. Besides ascertaining if a definite continuous pattern exists or 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. Also, does development 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 enumeration districts and correlate the results with relevant census data.

Other questions to be resolved surround the registered ownership of vacant land. As explained later in more detail, the Torrens System of land registration has greatly facilitated the study of ownership. Not only will the data provide the types of owners but it also records the period of ownership of vacant land and the type of builder who improved the site.

Accessibility to the unimproved site, within the City of Kamloops and surrounding region is the final area of analysis to be performed in the study. That is, the analysis 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 to the urban fringe and to what extent is accessibility to economic activities and services 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 attributable to the development process itself, and what part of the price increase is due to general demographic and sociological factors of urbanization".⁵

Data Sources and Methodology

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 method to be used to collect the information was determined. The foremost question was which method of analysis could be expected to yield the most effective results. The inexperienced researcher found 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 deficiencies which are introduced during the initial stages in the collection of basic data.⁷ However, preceding a detailed

examination of these inputs a description of the data sources is presented.

Data Resources

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 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 deciding the best method of information collection is the cost which is directly correlated 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 this made it possible to acquire the sale dates, transaction prices and type of owner for sample parcels from 1949-1970 in one government office. Briefly, the four main features of the Torrens System which facilitated 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.⁸

In addition to the land registry files access to the tax assessment rolls was of equal importance and benefit in compiling the sample. The Kamloops 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 and 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 often it was unnecessary to search the title unless a new subdivision occurred. 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 620 sample properties in the City of Kamloops randomly chosen from a legal map by the extension of rays from a chosen point to the urban fringe of the city. The rays were chosen after analysis of demographic and land use data to establish the most appropriate areas for the study. These areas would necessarily reflect the greatest concentrations of new residential growth during the study period. Every property in a legal block which a ray passed through is included in the sample regardless of its land use zoning (residential, industrial, commercial).

The first procedure was to identify from the map the legal description of each property. Obviously, at this point it was impossible to decipher whether the parcel was vacant or improved, therefore, all defined properties were listed. To identify the properties in the assessment cards it was necessary to record the block, lot and plan number. The second classification procedure was to record the enumeration district in

order to be able to compare geographic regions with corresponding census data, such as population growth. A zoning classification follows directly after the enumeration district. 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".⁹ It is hoped that this effect of zoning can be isolated in the analysis.

Following zoning, the lot size of each parcel is recorded in an attempt to show the effect on price of square footage and lot frontage. It was possible to obtain both acreage for larger parcels and feet measurements 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 is the date of development. Since each property in a block which a ray passed through 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 planning maps an entry (#6) 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. This is to determine which facilities, if any, are already in place when the homebuilder or developer purchases the land. For example, often development will precede the installation of an 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 data collection involves travel time or accessibility to the CBD and other services and economic activities, such as schools and shopping. Quoting Milgram again, she states "a priori it was expected that the development and price per acre would vary according to location and access to facilities...".¹⁰

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 try and identify the N-S or E-W traffic systems. Since the data will be related to enumeration districts the geographic location within a district 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 opportunities within the enumeration district.

The final section of information relates to the actual transactions of sample properties. The period of study is 1949-1970 inclusive. For each property in the sample the transaction date (month/year), title number, transaction type, type of owner, and sales price was recorded. The writer realizes there could be some error using the sales price 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".¹¹ 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 hoped that there is minimal error, and that defects in data collection with respect to sales price will not significantly distort the results.

Under the column labeled 'Transaction Type' 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 or corporation. The purpose of this grouping is to attempt to identify who is holding vacant land and possibly relate knowledge of the land market in Kamloops to the transaction price. That is, possibly 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, as frequently a registered individual represents corporate interests.

Using the date of sale and sales price, of arm's length transactions, and combining this final data with the preceding inputs, it is anticipated answers to a number of different

questions re the Kamloops 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, as well as identifying by size whether smaller parcels were bought and sold more frequently compared to large vacant areas.

The price trend will be determined by measuring the average price of all raw land transactions from 1949-1970 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 in addition to indicating the profitability of holding land.

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 would 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 neared development as well as how many parcels were bought by other than the ultimate developer. This combines with the final area of analysis which is holding time. Questions such as what is the median holding time before development and by whom, will be answered. In addition, what percentage of land developed was acquired in the year of development? preceding year? two years previous? more than five years previous? It is anticipated this investigation will reveal if there is a causal relationship between transactions and the development process.

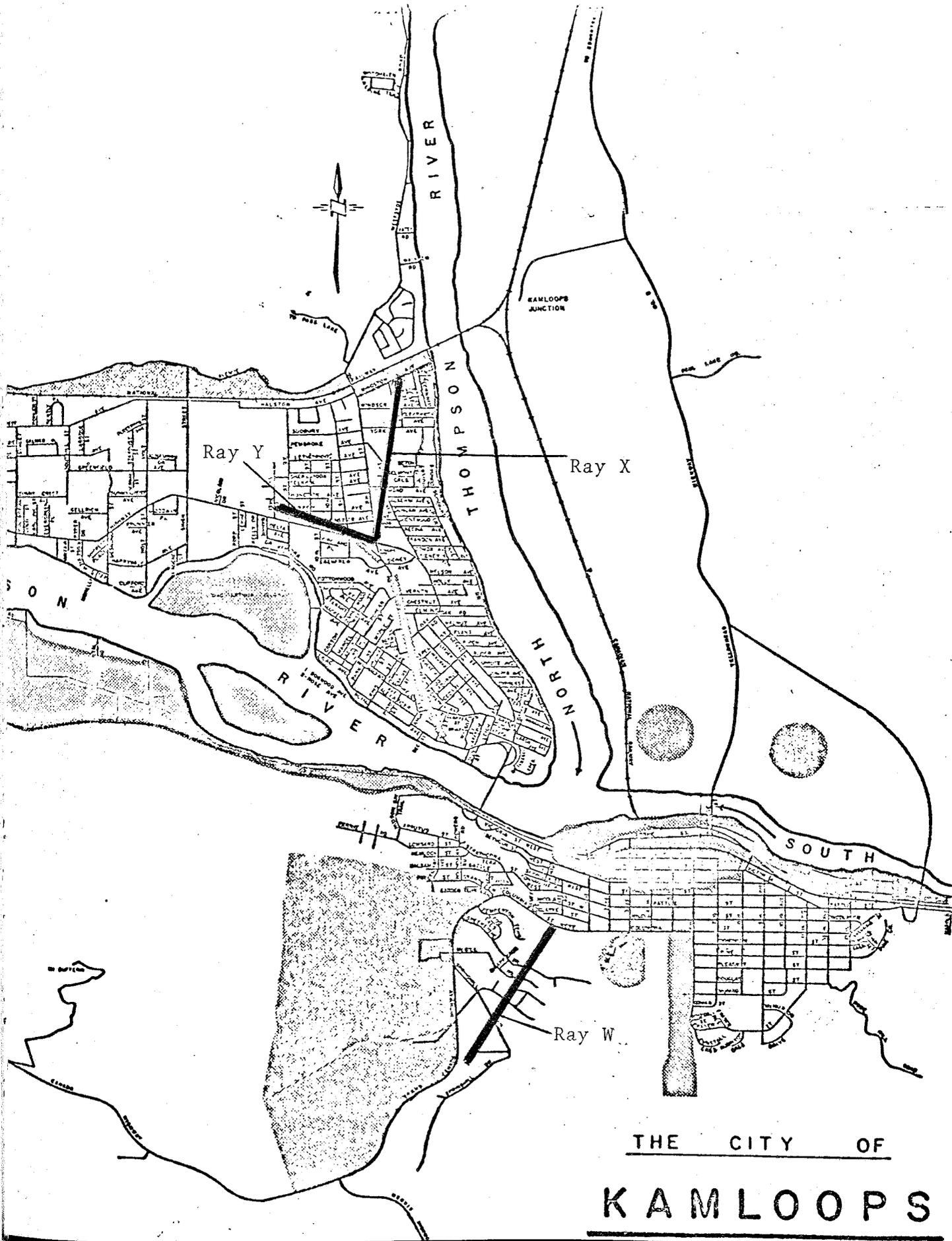
This concludes the examination of the selected variables from the data sheet and their relationship to the ensuing analysis. A flexible program was designed to apply the data to diverse situations applicable to different enumeration districts in different time periods. All the values selected were quantifiable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

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.¹²

The defined area for the land study is the City of Kamloops as outlined in Figure #1. This area is composed of 6,300 legally defined parcels, for which there are assessment cards, and is exclusive of the unincorporated districts contiguous to the city's boundaries. Since the main objective of the study is to investigate the price changes of raw land in the urban area since 1949 it was decided to choose a point of origin, outside the earlier developed CBD, from which the rays would extend to the city limits to give an approximate 10% sampling of properties. Therefore, since no ray passes through the heart of the central business district the analysis will not provide a study of land price changes in the CBD.

The most effective technique to select a proportion of the total population was to extend three rays through chosen areas, primarily either developed in the study period or which are still vacant. Derived from a legal plan map, each property in every square block through which a ray passed represents one observation unit for which the preceding outlined data was collected. The total number of properties composing the



representative sample is 620 parcels, or approximately 10% of the total number of properties.

The first two rays (X and Y) are comprised of 368 and 72 properties respectively and are located in the northern and north western sections of Kamloops. The origin of these two rays is at the junction of Fortune Drive, Tranquille Road and 8th Avenue. 'Ray X' extends north to the Canadian National Railway tracks and 'Ray Y' terminates at the boundary between the unincorporated area of Brocklehurst and the City. The third ray crosses a southwestern section of the City named Sa-hali. This is a residential subdivision adjacent to the Trans Canada Highway which began development in 1963 and is still expanding. This sample is comprised of 180 properties.

REFERENCES

1. Jackson, J.N., Surveys for Town and Country Planning, Hutchinson University Library, 1966, p. 20.
2. Ratcliff, Richard U., Urban Land Economics, McGraw-Hill Book Company Inc., New York, 1949, p. 289.
3. Milgram, Grace, The City Expands A Study of the Conversion of Land From Rural to Urban Use, Philadelphia 1945-62, Institute for Environmental Studies, University of Pennsylvania, Philadelphia, Pennsylvania, March, 1967, p. 123.
4. Harvey, Robert O. and Clark, W.A., "The Nature and Economics of Urban Sprawl", Land Economics No. 41, February, 1965, p. 3.
5. Brigham, E.F., A Model of Residential Land Values, The Rand Corporation, Santa Monica, California, 1964, p. 131.
6. Jackson, J.N., op.cit. p. 21.
7. The required personal experience was provided by Prof. S.W. Hamilton, who greatly assisted in defining the variables for the computer program relevant to the objectives of the study.
8. Head, Ivan, The Torrens System in Alberta, The Canadian Bar Review, Vol. 35, 1957 p. 5.
9. Milgram, Grace, op.cit. p. 89.
10. Milgram, Grace, op.cit, p. 87.
11. Brigham, E.F., op.cit. p. 82.
12. Jackson, J.N., op.cit, p. 64.

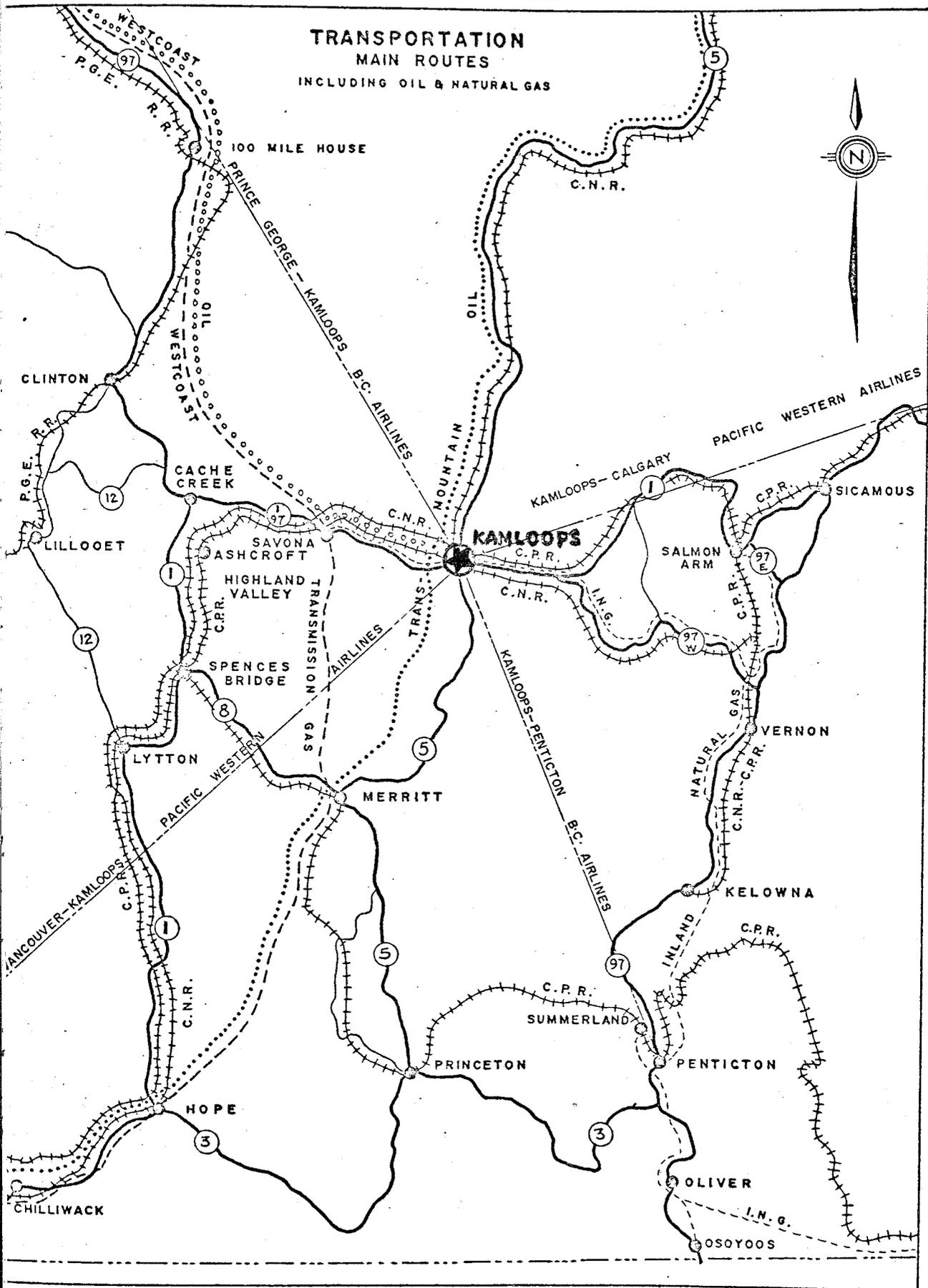
CHAPTER IV

DEFINITION AND HISTORICAL GROWTH PATTERN OF THE STUDY AREA

In order to be able to objectively analyze the output from the computer program created to examine changes in vacant land values, it is necessary to understand the historical growth pattern in the Kamloops Region and more specifically in sample areas containing the selected Rays X, Y and W. The Kamloops Region includes the unorganized communities of Brocklehurst, Mission Flats, Westsyde, Valleyview and the Powers-Edmonds Addition which are contiguous to the city limits of Kamloops. These communities, which have experienced rapid growth in the last decade, contain approximately forty percent of the total population of 43,600 in the Metropolitan Region, and have played a significant role, as alternate residential locations, in determining vacant land values in the study area.

FIGURE IV-1: LOCATION MAP - KAMLOOPS, BRITISH COLUMBIA.

(Source: British Columbia Bureau of Economics and Statistics, The Kamloops Region - An Economic Survey, Victoria, May 1961.



The City of Kamloops - Historical Growth

The history of Kamloops is the story of transportation. The city is the accident of geography, the meeting of north-south valleys with the only major east-west valley in Southern British Columbia.¹

The City of Kamloops, situated at the junction of the North and South Thompson Rivers (Figure I) in the interior of British Columbia, was first established by the Hudson's Bay Company as a fur trading post in 1812. Due to its strategic location, the fort and adjacent lands soon developed into an important fur depot, defense post, and breeding grounds for the hundreds of horses required for the fur brigades.

Little areal expansion occurred in the region until the Cariboo Gold Rush of 1861-1862 and the subsequent construction of a new fort in 1863 opposite the old site. "In 1871 James McIntosh acquired one hundred acres adjoining the Hudson's Bay property on its eastern boundary and engaged E. Dewdney to lay out his property as a townsite."² By 1880 the population of the newly settled townsite on the south shore was 500 persons. Between 1885 and 1905 the population increased to 2,500 with the advent of the Canadian Pacific Railway (1886) and Kamloops' designation as a divisional point. Also, in 1911 the Canadian National Railway began construction down the Yellowhead Pass from Jasper (Figure I) and in 1915 commenced operating into Kamloops. This achievement of "transcontinental status" initiated the development of the local economy along

the lines of a major distribution centre.

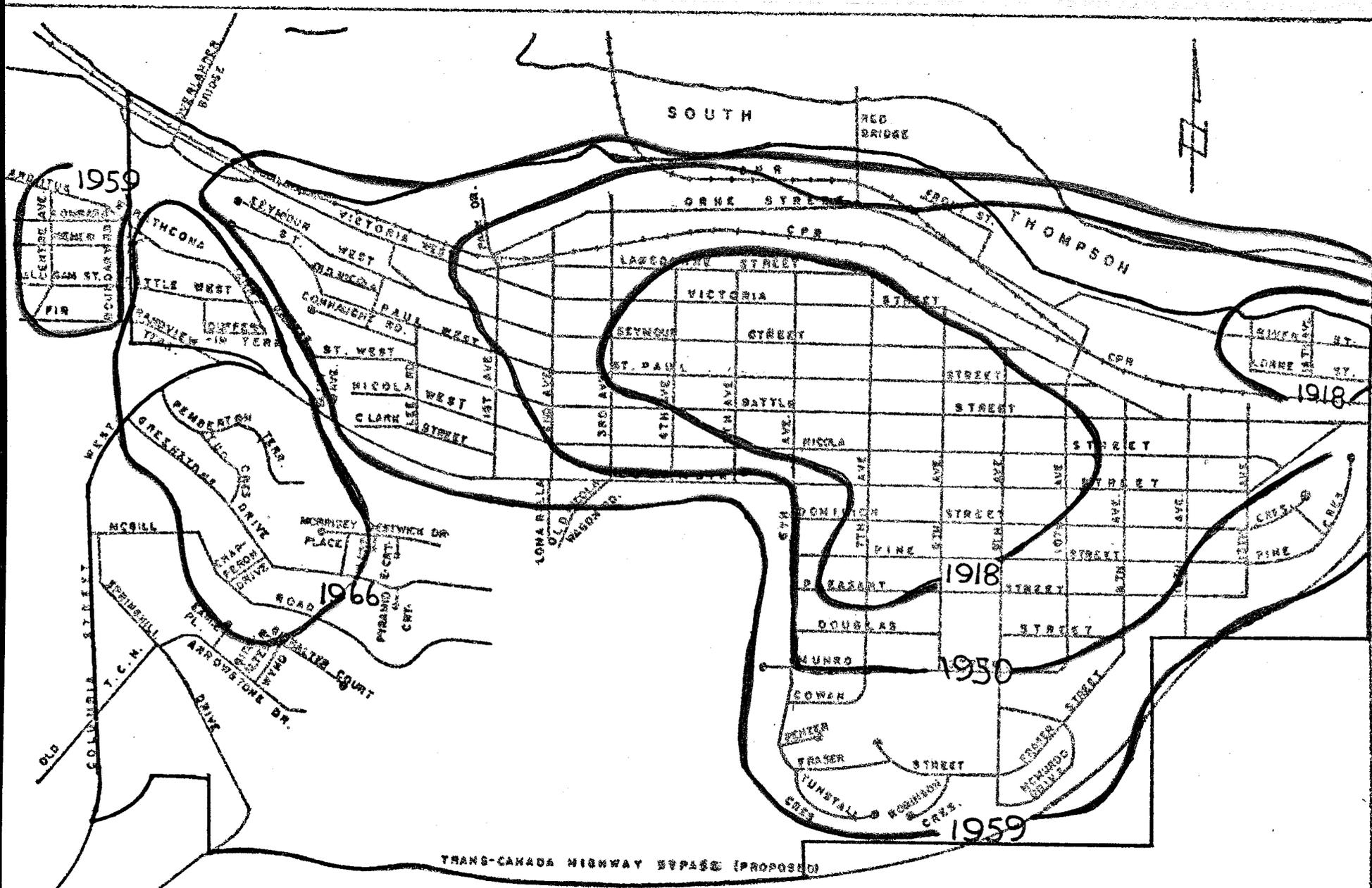
"After the large migration of British settlers into Canada, 1903-1907, the cultivation of cropland succeeded mining as the major economic activity" ... and "...large scale expansion occurred again in the 1930's when vegetable canneries were added at Kamloops".³ Also, ranching grew in importance in the valley areas between 1200'-3000' elevation in the spring and fall and above 3000' elevation in the summer. "At the end of World War I regular provincial cattle sales were initiated at Kamloops"⁴ and "in 1968 more than 30,000 head of cattle were sold providing over \$4,000,000 in revenue to ranchers".⁵

In addition to agriculture and ranching, the increasing influence of lumbering on the regional economy dates from the early 1900's, stimulated by construction of the C.P.R. Besides residential construction demands and a significant export market, the local economy has provided "market opportunities in the manufacture of fruit and vegetable containers"⁶ and more recently larger mills (Kamloops Pulp and Paper - Weyerhaeuser Co. 1955) commenced the production of pulp chips.

Figure I also illustrates the importance of highways to the region. With railways providing the initial impetus to growth, it seems the impact of recent highway construction has provided the basis of the growth of the last decade. In 1962 the one hundred mile Roger's Pass section of the Trans Canada

Highway (#1) was completed, decreasing travel time by ten hours between Vancouver and Calgary and providing a completely Canadian route to the East. This event is still causing a rapid increase in economic and demographic growth in the region, and combined with the 1971 completion of provincial highway route #5 (Yellowhead Route) connecting highway #16 to Edmonton, growth will be stimulated to an even greater degree, especially in the transportation and tourist industries.

Until amalgamation with the Town of North Kamloops (Dec. 31, 1967) the boundaries of the City of Kamloops contained the area outlined in green in Figure II. As previously stated, transportation routes have established the City of Kamloops as a node or a "hub" of inter and intra-provincial commerce. As a result there exists long narrow wholesale distribution sector flanking the main highway and railway routes which converge within the city limits. This sector developed into the main commercial district of Kamloops and is presently extending east into recently incorporated Valleyview. In addition, the topography of the area has generally confined growth to the valley floor, between the South Thompson River and adjacent southern slopes. As a result the residential growth pattern, by concentric rings, developed as outlined in Figure II. However, the availability of flat land within the city limits is quickly diminishing and the most recent ring (1966) encircles much of the study area of Sa-hali (Ray W) which is a steeply sloping area in the



CITY OF KAMLOOPS
1" = 1000'

FIGURE IV-II: GROWTH OF THE CITY OF KAMLOOPS BY CONCENTRIC RINGS.
(Source: Miller, Donna, Residential Location and Expansion - Kamloops, British Columbia, 1950-1966, Department of Geography, University of British Columbia, 1969.)

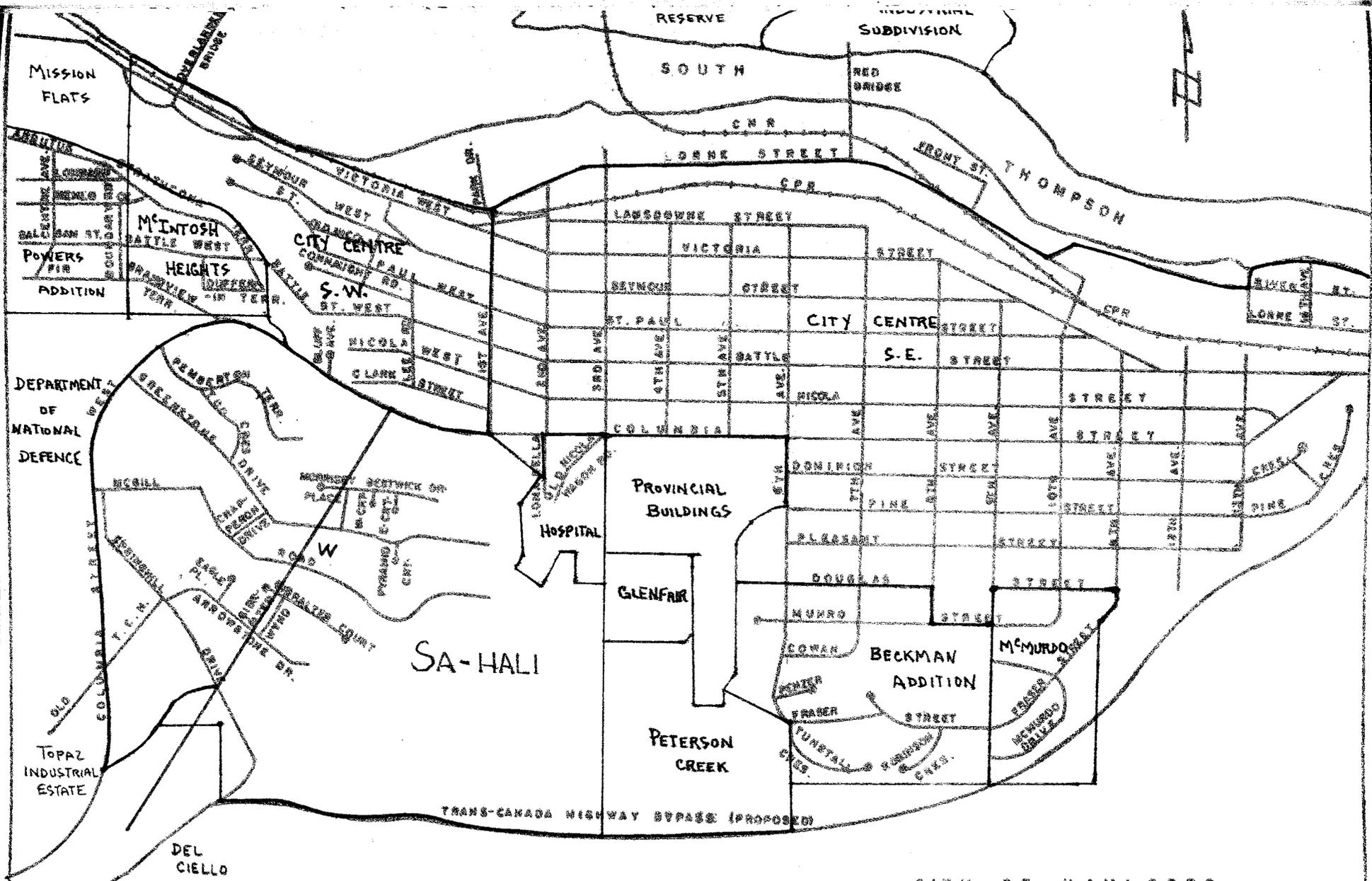
southwestern section of the city. Due to the availability of flat vacant land in North Kamloops and in the contiguous unincorporated districts much of the recent urban growth has occurred in these communities. This development pattern is discussed in the succeeding sections of this chapter.

In summarizing the historical growth of Kamloops, it is extremely evident that the city "owes much to the transportation industry which has contributed to a significant extent in the development of the economic importance of the region".⁷ Transportation facilities will undoubtedly continue to shape the future of the region as evidenced by "planned siding extension programs"⁸ by the C.N.R. and a "\$300,000 construction project at Kamloops airport to provide a permanent air traffic control tower and related facilities."⁹ to accommodate expanding air traffic.

Study Area - Sa-hali (Ray W)

Sa-hali is a subdivision situated in the southwestern sector of Kamloops within the original city limits. Its geographic location and proximity to other divisions of the city is illustrated by Figure III. This area was not developed to any significant degree until 1963 due to its hilly topography which is more expensive to service.

The City of Kamloops did not make the same expensive



CITY OF KAMLOOPS
 1" = 1000'

FIGURE IV-III: LOCATION MAP - SA-HALI.
 (Source: The Department of Public Works, City of Kamloops.)

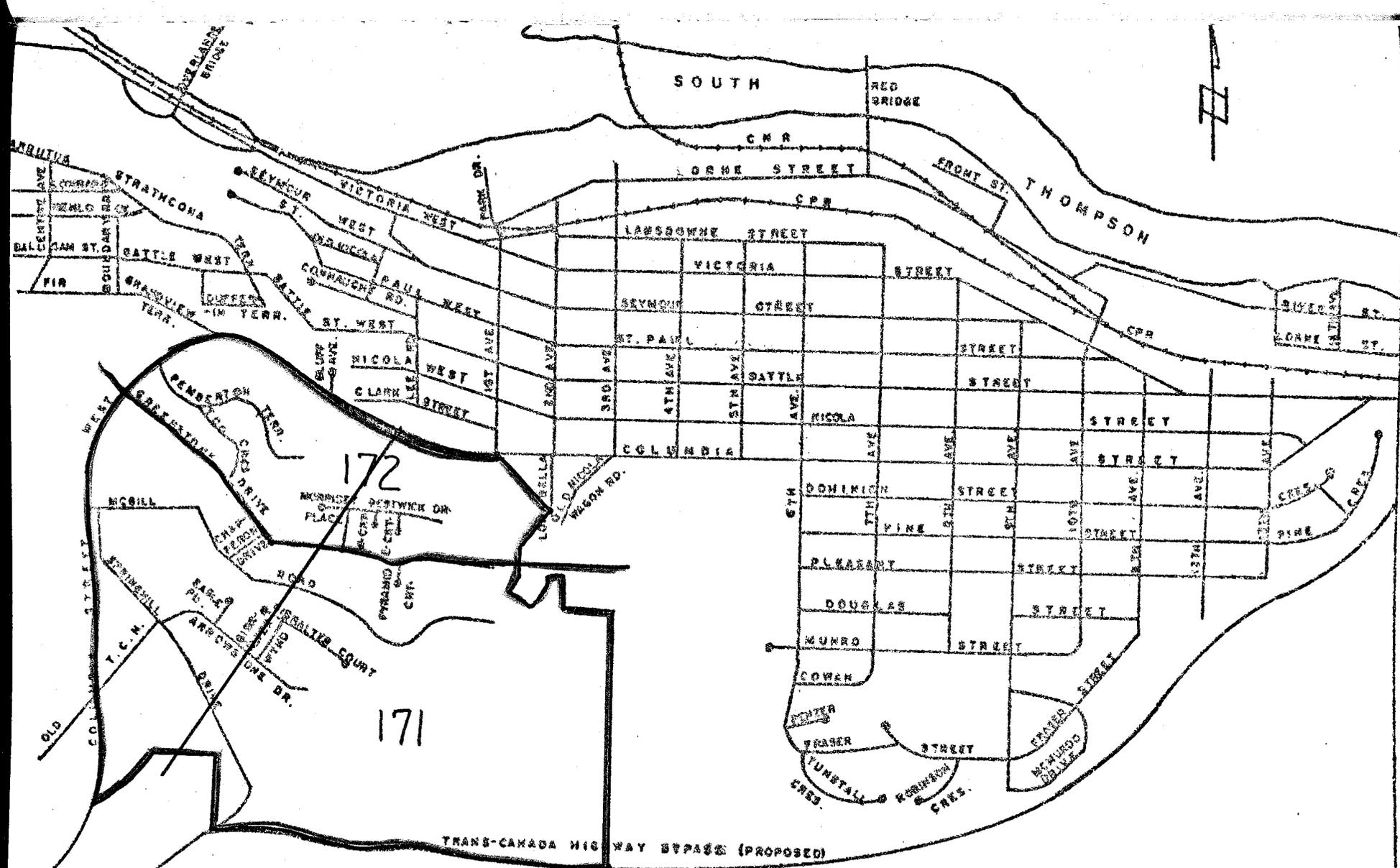


FIGURE IV-IV: CENSUS TRACTS - SA-HALI.
 (Source: The Department of Public Works,
 City of Kamloops.)

CITY OF KAMLOOPS
 1" = 1000'

mistake as North Kamloops with respect to who is responsible for installing the required services. The developer in Sa-hali is responsible for the installation of all utilities excluding only the sidewalks and streetlighting. All utilities such as hydro and telephone must be placed underground and an installation of adequate sewage disposal system is also required of the developer. Sa-hali has been serviced and developed in eight different sections since 1963 and the road system and subdivision plans have been largely dictated by the topography of the area.

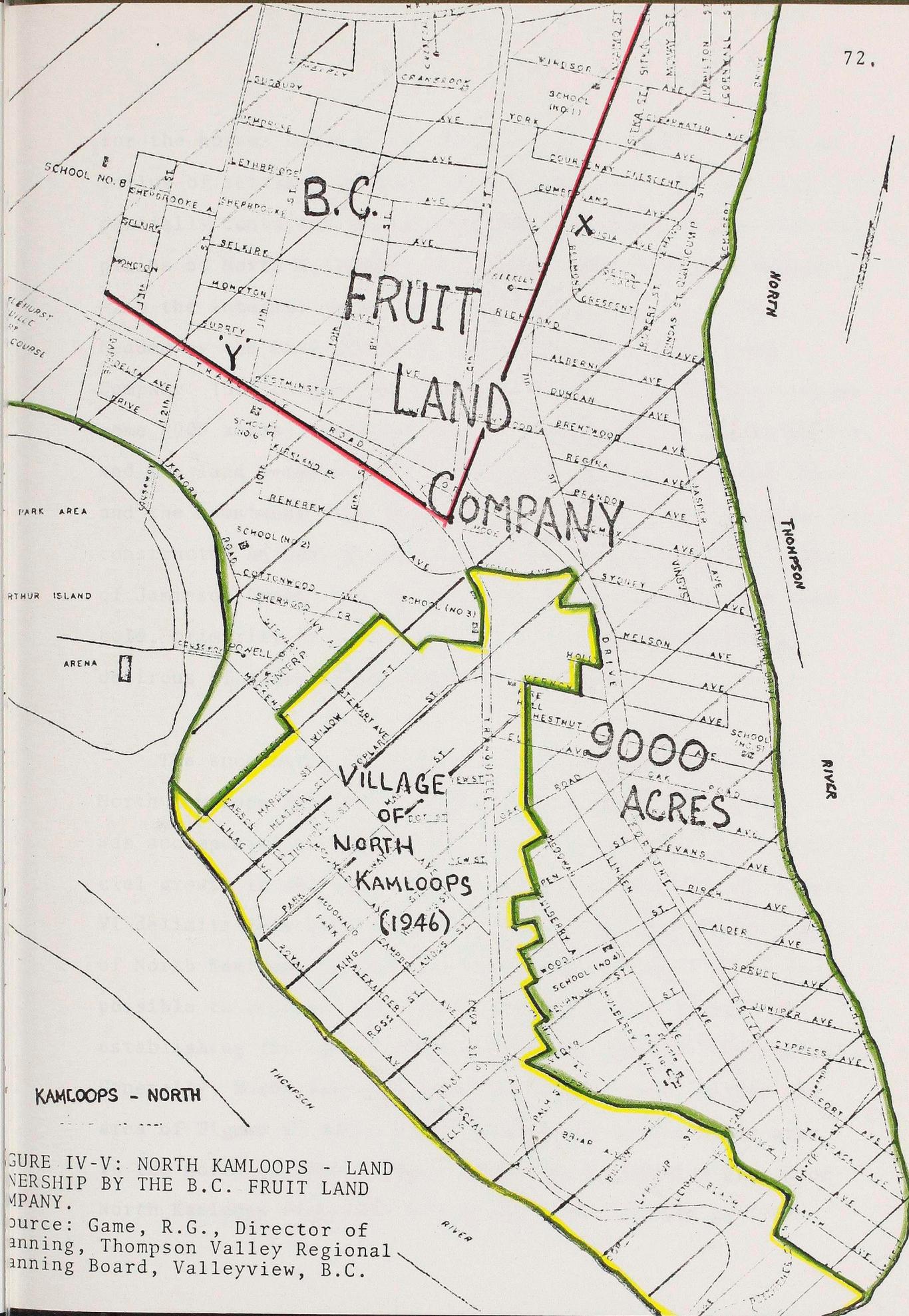
Figure IV dividies the subdivision into two enumeration districts. Both districts have higher than average incomes and services with view lots and an above average housing stock.

North Kamloops (Figure V)

The historical growth of North Kamloops is divided into two sections. First, a brief history of the entire region is given, followed by a more detailed outline of the subdivided region through which Rays X and Y pass. (North Kamloops amalgamated with the City of Kamloops on December 30, 1967.)

General History

North Kamloops, initially (1820-1840) was a grazing range



B.C.
FRUIT
LAND
COMPANY

9000
ACRES

VILLAGE
OF
NORTH
KAMLOOPS
(1946)

KAMLOOPS - NORTH

SURE IV-V: NORTH KAMLOOPS - LAND OWNERSHIP BY THE B.C. FRUIT LAND COMPANY.

Source: Game, R.G., Director of Planning, Thompson Valley Regional Planning Board, Valleyview, B.C.

for the horses owned by the Hudson's Bay Company but with an influx of settlers after the Gold Rush (1861) the area was partially converted to agricultural use. However "the alluvial plains of North Kamloops first began their real development with the interest of wealthy English capitalists"¹⁰ who, headed by the Earl of Errol, formed the B.C. Fruit Land Company. This corporation "secured by crown grant and purchase some 9000 acres, including all of North Kamloops, Brocklehurst, and the land between the west bank of the North Thompson River and the mountains from Halston to Jamieson".¹¹ The company then constructed an underground irrigation system using the waters of Jamieson Creek, and the holdings of the company were then sold, primarily on an acreage basis, to English settlers, desirous of establishing farms and orchards.

The successful land assembly and subdivision of land in North Kamloops by the B.C. Fruitlands Irrigation Company, was accompanied by a small nucleus of residential and commercial growth in the southwestern section of the region. Figure VI delimits this area which subsequently became the Village of North Kamloops in 1946. By referring to Figure VI it is possible to recreate the growth pattern of the Village by establishing the age of the buildings by 'Period Constructed'. Generally, North Kamloops grew at a steady rate, within the area of Figure VI until subdivision began in the study area to the north in 1960. Table 1 gives the population growth of North Kamloops from 1946 to the amalgamation date in 1967.

TABLE 1

Town of North Kamloops

Population

<u>Year</u>	<u>Municipal Estimates</u>	<u>Dominion Census</u>
1946 Inc. as Village	970	
1947	1,100	
1948	1,350	
1949	1,550	
1950	1,750	
1951		1,979
1952	2,400	
1953	3,000	
1954	3,500	
1955	4,000	
1956		4,398
1957	4,800	
1958	5,200	
1959	5,600	
1960	6,000	
1961 Inc. as Town		6,456
1962	6,800	
1963	7,500	
1964	8,500	
1965	10,000	
1966		11,197
1967	12,700	

Source: Construction Statistics, Department of Planning,
City of Kamloops, 1971.

It was also possible to obtain from the Kamloops' Planning Department the annual total of issued building permit values for residential structures from 1951-1970 (Table 2). These figures are included with population, also to show the increase in the number of residential units constructed in North Kamloops especially since major subdivision commenced in the sample are (Rays X and Y) in 1962.

TABLE 2

Comparative Construction Breakdown

North Kamloops

	Single Family Units	Amount (Building Permit Values)
1951	41	\$ 166,000
1952	79	319,925
1953	108	517,400
1954	80	597,500
1955	60	476,500
1956	98	764,300
1957	114	825,770
1958	130	1,268,160
1959	64	692,490
1960	52	534,500
1961	71	788,340
1962	129	1,354,000
1963	237	2,306,404
1964	430	3,692,860
1965	266	3,300,350
1966	204	2,594,700
1967	188	2,413,435
1968	102	1,285,220
1969	219	2,375,000
1970	202	2,442,700

Source: Construction Statistics, Department of Planning,
City of Kamloops, 1971.

Study Area - North Kamloops (Ray X and Ray Y)

As previously indicated, the first residential and commercial development in North Kamloops occurred in the southern sector (Figure VI) due to the fact that the majority of the existing economic activities were concentrated in the City of Kamloops. However, due to a diminishing supply of vacant flat land suitable for development in the City of Kamloops in the late 1950's developers were forced to either purchase steeply sloping lots in the southwestern section of Kamloops or expand beyond the city limits. The administrators of the Town of North Kamloops became extremely anxious to annex future growth and as a result placed almost no restrictions on prospective developers. The subdivision bylaw only required that the developer deposit enough funds with the Town to gravel the roads of a subdivision. There were no drainage or sewerage requirements and underground services were not required. As a result, prior to 1959 a sewage disposal system did not exist in North Kamloops. However, with a significant upsurge in Kamloops population forecast to coincide with completion of the Trans Canada Highway sewage bylaws were introduced in 1959, as septic tanks require a larger minimum lot size. Figure VII illustrates the separate subdivisions in the sample area and Figure VIII illustrates the timing of the installation of sewage systems by municipal bylaw. All sewer pipes must be installed in the middle of the roads due to the sandy soil in the region. Therefore, where the gravel roads existed

FIGURE IV-VI: AGE DISTRIBUTION OF BUILDINGS IN NORTH KAMLOOPS.
 (Source: Game, R.G., Director of Planning, Thompson Valley 78.
 Regional Planning Board, Valleyview, B.C.)



**KAMLOOPS (NORTH)
 SPECIAL STUDY AREA**

AGE OF BUILDINGS

-  1960 - 1970
-  1955 - 1959
-  1950 - 1954
-  1945 - 1949
-  BEFORE 1945

(PERIOD CONSTRUCTED)

FIGURE IV-VII: RESIDENTIAL SUBDIVISION BY YEAR IN STUDY AREA (RAY X AND RAY Y).

(Source: Vernon, Ross, Engineer, Department of Public Works, City of Kamloops, B.C. 79.)

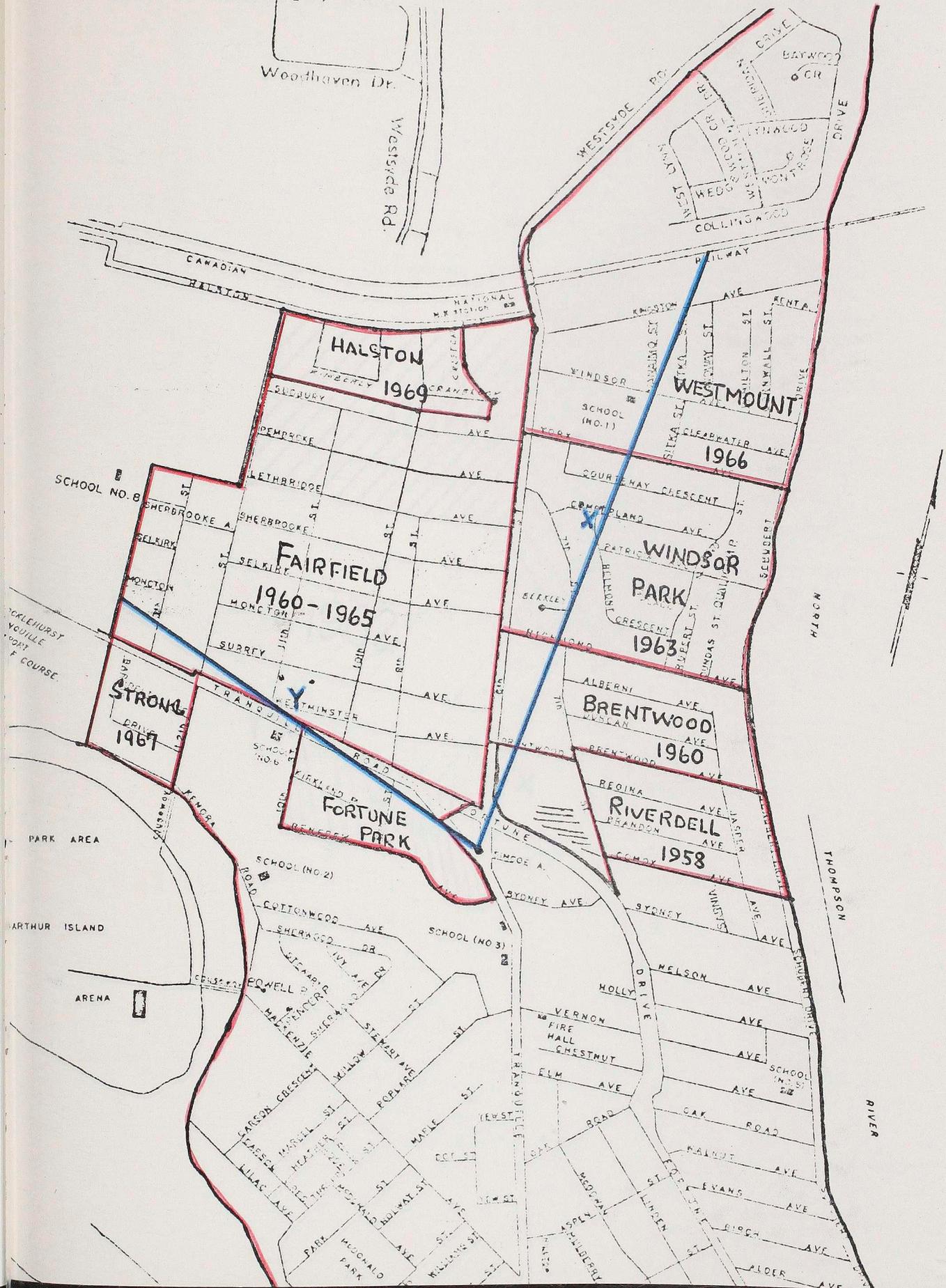


FIGURE IV-VIII: INSTALLATION OF SEWAGE SYSTEM BY YEAR IN STUDY AREA (RAY X AND RAY Y).
 (Source: McGregor, N., Chief City Engineer, Department of Public Works, City of Kamloops, B.C.)

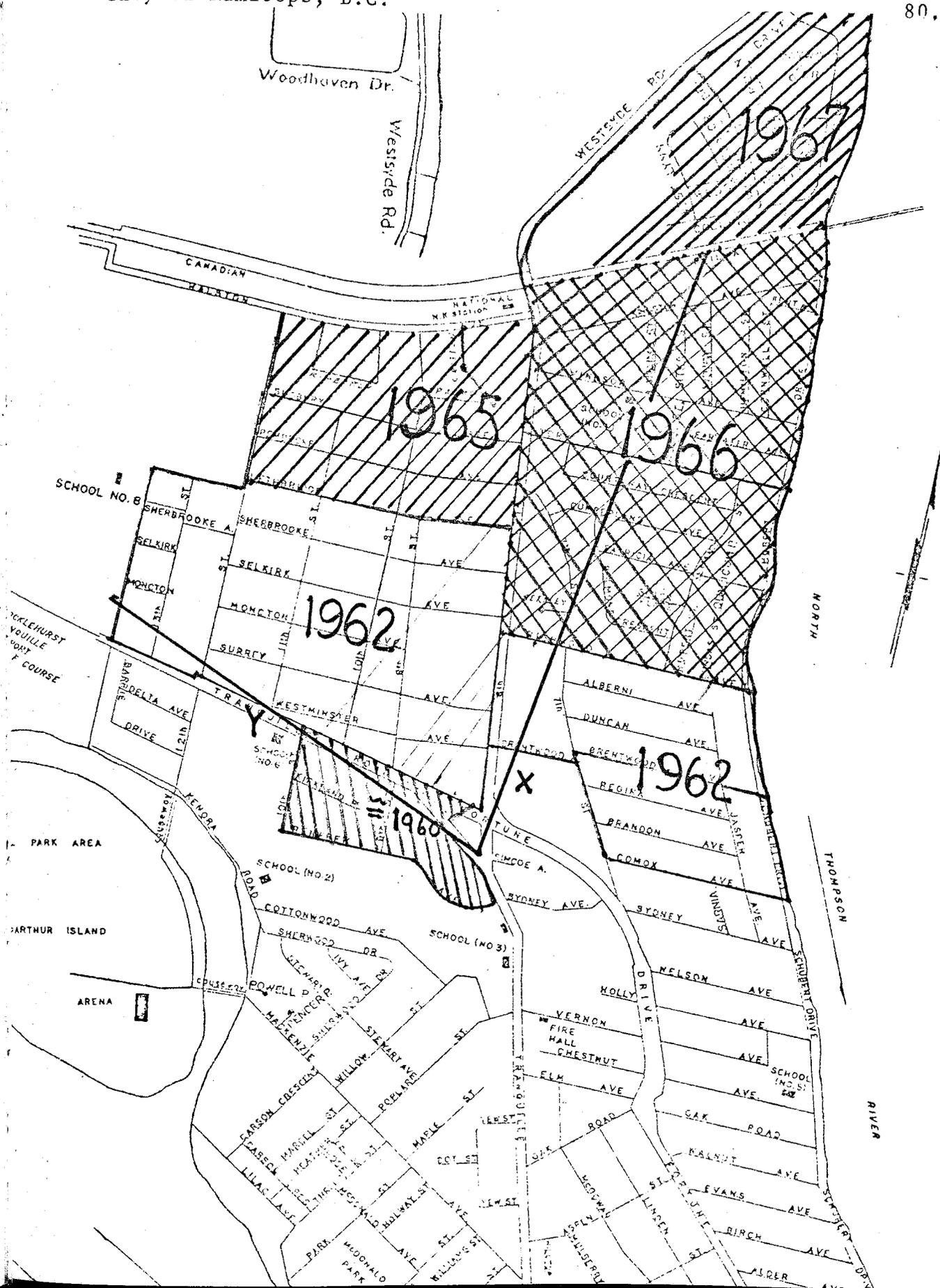
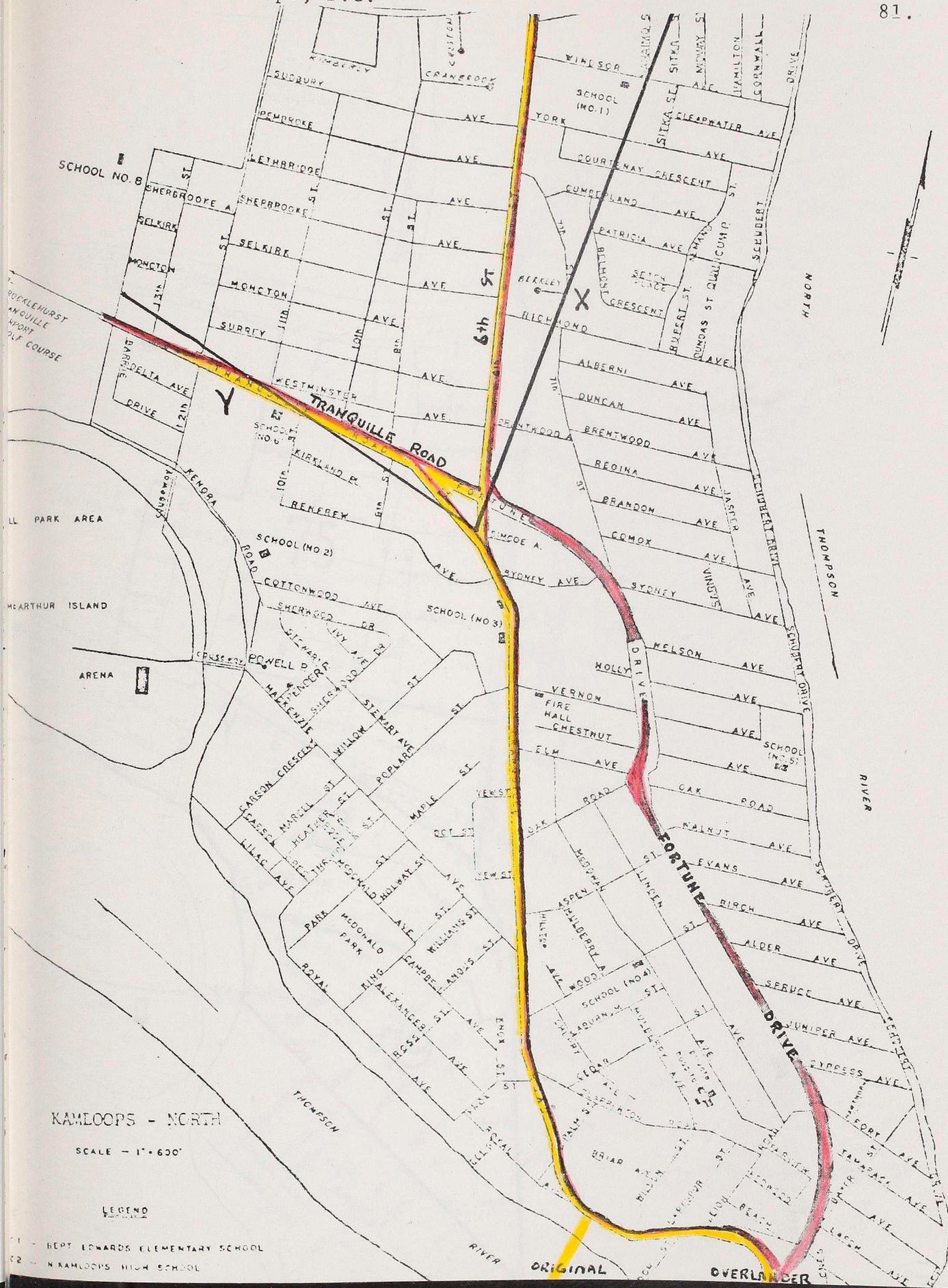


FIGURE IV-IX: MAIN TRANSPORTATION ARTERIES - NORTH KAMLOOPS.
 (Source: McGregor, N., Chief City Engineer, Department of Public Works,
 City of Kamloops, B.C.)



KAMLOOPS - NORTH

SCALE - 1" = 600'

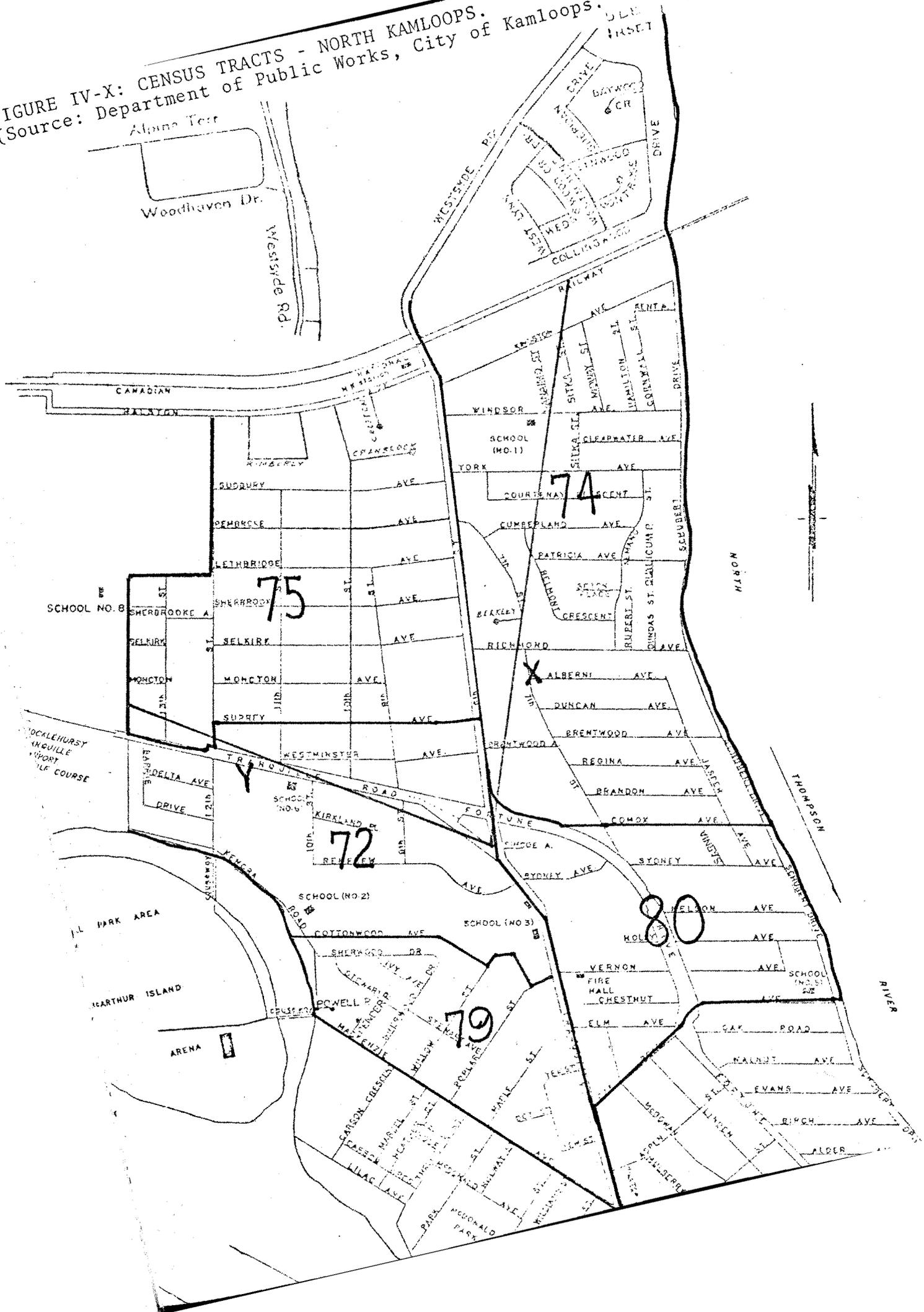
LEGEND

- 1 - BERT EDWARDS ELEMENTARY SCHOOL
- 2 - KAMLOOPS HIGH SCHOOL

ORIGINAL

OVERLANDER

FIGURE IV-X: CENSUS TRACTS - NORTH KAMLOOPS.
(Source: Department of Public Works, City of Kamloops.)



prior to the installation of sewers it was necessary for the Town to tear up the roads and completely rebuild them. The expense of this procedure is one important factor which caused North Kamloops to amalgamate with the City of Kamloops.

The main arterial routes providing accessibility to the subdivision are illustrated in Figure IX. There has been a significant change in the traffic pattern in North Kamloops since the construction of the Overlander Bridge which transformed Fortune Drive into a main artery. However, this change mainly affects the traffic patterns south of the sample area and Tranquille Road and 6th Street still provide the main access to properties within the sample region.

Finally, Figure X divides the study area into enumeration districts. This makes it possible to correlate census figures such as population and income with the output from the program.

The Unorganized Communities

As was stated in the introduction to this chapter the unorganized communities surrounding the City of Kamloops comprise a very considerable part of the metropolitan area. The following analysis of these communities will show them generally residential in character, with the exception of Mission Flats, and to contain a very considerable percentage of the

local housing stock. The information contained in the following analysis has been acquired directly from A Summary of Land Uses published by the Thompson Valley Regional Planning Board and by personal interviews with Mr. R.G. Game, the Board's Director of Planning.

Powers-Edmonds Addition

This community occupies approximately 70 acres on the brow of the hill below the Trans Canada Highway and above the river at the western entrance to the city and any expansion of the city to the west depends on access through the Powers-Edmonds Addition which is presently not sewered.

Only one house has been constructed in the area since 1967 and the age distribution of the ninety eight buildings recorded in the area is as follows:

TABLE 3

<u>Age Distribution of Buildings</u>	<u>Number</u>	<u>% Distribution</u>
1968 - 1960	22	22%
1959 - 1955	15	15
1954 - 1950	17	17
1949 - 1945	10	10
Before 1945	<u>34</u>	<u>36</u>
Total	98	100%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board.

This area is only fifty percent developed and has a population of approximately 400. However, much of the remaining land is not suitable for development due to problems imposed by broken topography and steep slopes.

Mission Flats

Further west of the City and adjacent to the south bank of the Thompson River is Mission Flats. Low elevation is the main objection to the area's use for heavy industrial purposes. There is a very considerable foreshore suitable to development but it has been suggested that the site be left undeveloped since it is subject to annual spring floods. Also, continued high water throughout the summer limits the usefulness of the land.

The total approximate area of Mission Flats is 528 acres; 39 acres are residential and 11 acres commercial. The population of 350 is housed in eighty-seven residential dwellings, nearly all of which are in a deteriorated condition and the area generally reflects a low standard of improvements.

TABLE 4

<u>Age Distribution of Buildings (including housing)</u>	<u>Number</u>	<u>% Distribution</u>
1968 - 1960	24	17%
1959 - 1955	17	12
1954 - 1950	46	32
1949 - 1945	23	16
Before 1945	<u>34</u>	<u>23</u>
Total	144	100%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

The two main problems to the expansion of the Mission Flats as an industrial site is the low elevation and provision of access to both North and South Kamloops.

Brocklehurst

Brocklehurst is the largest single unorganized community on the outskirts of the City of Kamloops and is also the fastest growing area in terms of residential assessment and population. Between 1965 and 1968, two hundred and seventy new dwellings were constructed in Brocklehurst. The community occupies 1,124 acres north and west of Kamloops and is approximately 50% developed. The breakdown of land use by acreage is as follows:

TABLE 5

<u>Land Use</u>	<u>Total Acreage</u>	<u>% Distribution</u>
Residential	407	36%
Commercial	10	1
Agricultural or Vacant	678	60
Public	28	3
Total	1,124	100%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

This represents a very low utilization of the land resulting from uneven and inefficient subdivision and the actual density of the developed residential land is even lower because of the 10,000 square foot minimum lot size, imposed by the general lack of community sewerage collection and treatment.

The following percentages classifying the existing structures by age includes residential, commercial, industrial and public uses. However, the majority of the structures are residential as there are only seventeen commercial and public buildings.

TABLE 6

<u>Age</u>	<u>% Distribution</u>
1968 - 1960	67.7%
1959 - 1955	15.6
1954 - 1950	8.6
1949 - 1945	3.4
Before 1945	4.7
	<hr/> 100.0%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

While the stock of housing including a large number of mobile units (Figure XI) is reasonably good, the comparable standard of services is poor. Basically, the area is not sewerred or drained but is supplied with domestic and irrigation water by the B.C. Fruitlands Company. The area is serviced by telephone, hydro and natural gas. 21.75 miles of roads (89.3%) are improved with asphalt.

Westsyde

Westsyde stretches 4.73 miles along the road bearing the same name, north and west of Kamloops. The area chosen to include the community, which also coincides with the general distribution of domestic water by the B.C. Fruitlands, contains 997 acres and has a population of 2,300.

FIGURE IV-XI: EXISTING LOCATION OF TRAILER PARKS IN THE KAMLOOPS AREA.
 (Source: Thompson Valley Planning Board, Valleyview, B.C.

EXISTING LOCATION OF TRAILER PARKS IN THE KAMLOOPS AREA

(AUGUST 1970)

LEGEND

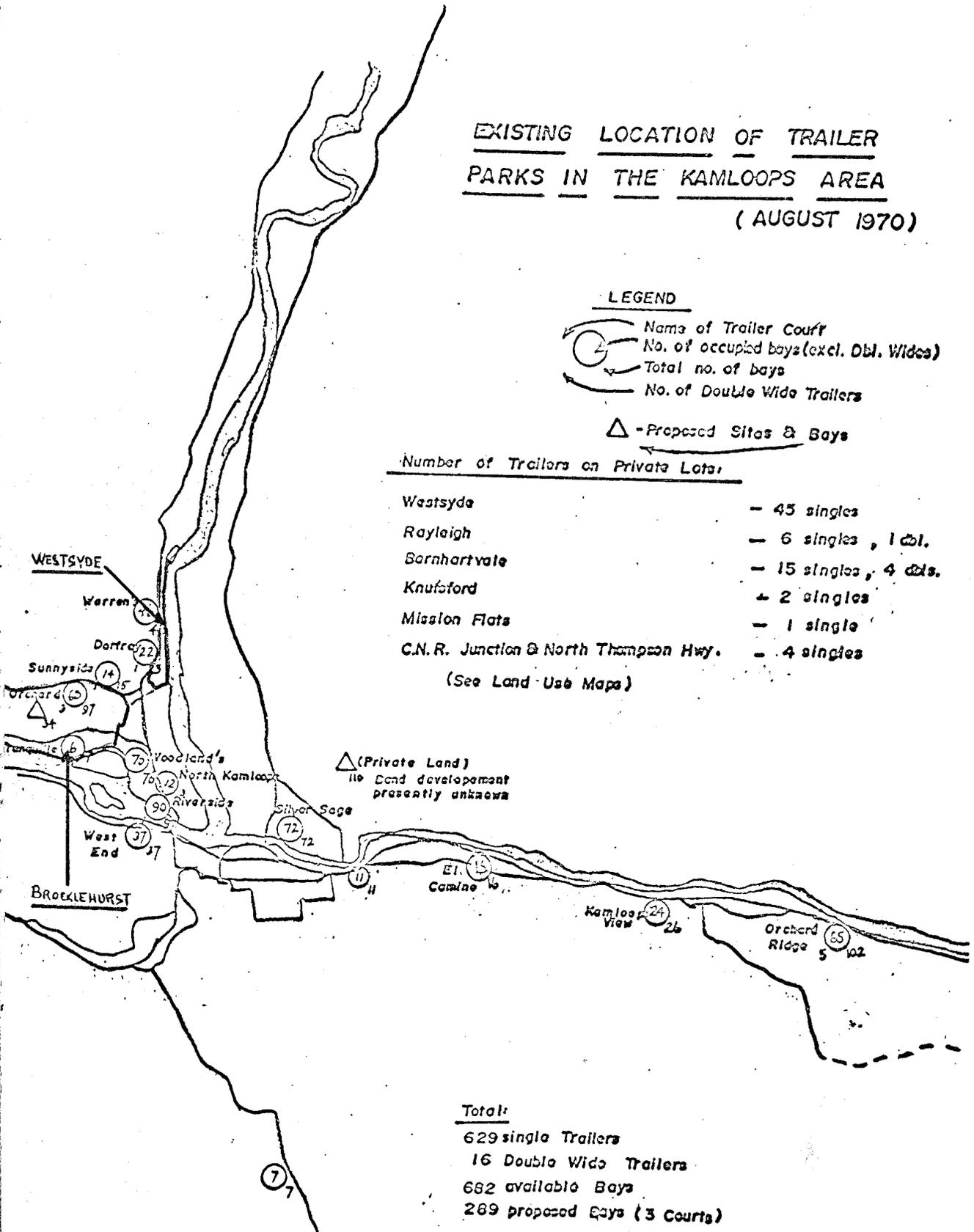
-  Name of Trailer Court
-  No. of occupied bays (excl. Dbl. Wides)
-  Total no. of bays
-  No. of Double Wide Trailers

 - Proposed Sites & Bays

Number of Trailers on Private Lots:

- Westsyde - 45 singles
- Rayleigh - 6 singles, 1 dbl.
- Barnhartvale - 15 singles, 4 dws.
- Knutsford - 2 singles
- Mission Flats - 1 single
- C.N.R. Junction & North Thompson Hwy. - 4 singles

(See Land Use Maps)



 (Private Land)
 No land development presently known

Total:
 629 single Trailers
 16 Double Wide Trailers
 682 available Bays
 269 proposed Bays (3 Courts)

The river valley is fairly narrow through the length of Westsyde but while some of the lowest, and as yet unbuilt ground by the edge of the North Thompson River, floods the region on a routine basis, the greatest recent problem, with regard to drainage, has been created by subdivisions above the Westsyde Road on comparatively high ground located on the deltas of ravines.

Westsyde including all classes of development, is at present only approximately 25 percent developed. However, residential areas (including trailers - Figure XI) predominate and commercial development is negligible. Land utilization is as follows:

TABLE 7

<u>Land Use</u>	<u>Acres</u>	<u>% Distribution</u>
Vacant or Agricultural	742	74.4%
Residential	213	21.4
Commercial	1.8	.2
Industrial	7.4	.7
Public	33	3.3
Total	<u>997.2</u>	100.0%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

There are 120 permanent trailers in the Westsyde area, many on individual house lots. The area has generally poorer

quality dwellings but since the introduction of the Community Planning Area Regulations concerning building standards, housing has been considerably upgraded. However, there is no existing community sewer treatment and there exists a very inefficient pattern of subdivision considering the land is only 25% developed.

TABLE 8

<u>Age</u>	<u>Number</u>	<u>% Distribution</u>
1968 - 1960	239	50%
1959 - 1955	126	26
1954 - 1950	72	15
1949 - 1945	14	3
Before 1945	27	6
Total	478	100%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

Valleyview

Valleyview, the last community on the boundaries of Kamloops, is actually in a relatively more favourable position than the City of Kamloops with respect to transportation routes. This community (pop. 3,500) was incorporated in 1970 and with considerable industrial acreage and commercial and multi-family residential development, has a sound economic

basis. Valleyview contains 546 acres of developed land and is entirely a valley development stretching 3.5 miles eastward from Kamloops along the Trans Canada Highway and is showing no tendency yet to climb the hills to the south. In comparison to the other communities, Valleyview is almost three-quarters developed with only one-half residential.

TABLE 9

<u>Land Use</u>	<u>Acres</u>	<u>% Distribution</u>
Residential	294	53%
Commercial	59	10
Industrial	15	2
Agricultural or Vacant	156	28
Public	22	4
Total	546	100%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

While the standard of individual homes is very high, the standard of subdivision is not, and the usage of the land is therefore in many cases not efficient. Also, trucking is an important economic activity in Valleyview and requires an excessive amount of outside storage.

Coupled with a former minimum lot size of 15,000 square feet prior to the installation of sanitary services, the population of 3,500 is quite low.

TABLE 10

<u>Age</u>	<u>Number</u>	<u>% Distribution</u>
1968 - 1960	324	44.4%
1959 - 1955	214	29.3
1954 - 1950	95	13.0
1949 - 1945	78	10.7
Before 1945	<u>19</u>	<u>2.6</u>
Total	730	100.0%

Source: A Summary of Land Use, Thompson Valley Regional Planning Board

Valleyview is well serviced by municipal services to a degree that is comparable to the North Side of the City of Kamloops and has a family formation pattern similar to Brocklehurst.

REFERENCES

1. Morse, J.J., Kamloops - the Inland Capital, A Publication of the Kamloops Museum Association for the Kamloops Centennial Committee, 1958, p. 23.
2. ibid., p. 20.
3. British Columbia Bureau of Economics and Statistics, The Kamloops Region - An Economic Survey, Victoria, B.C., May 1961, p. 2.
4. ibid., p. 2.
5. History of Kamloops, Article Published by the Industrial Development Department, City of Kamloops, p.5.
6. British Columbia Bureau of Economics and Statistics, op. cit., p. 3.
7. British Columbia Bureau of Economics and Statistics, op. cit., p. 4.
8. "New C.N. Sidings Near Kamloops", Journal of Commerce, June 1, 1970, p. n.a.
9. "Airport plans get green light", Kamloops Daily Sentinel, November 13, 1970, p. n.a.
10. Morse, J.J., op. cit., p. 35.
11. Morse, J.J., op. cit., p. 36.

CHAPTER V

ANALYSIS OF DATA

In order to achieve the objectives of the study, it was essential to formulate an analysis procedure which would recreate the market behaviour of raw land sales during the study period. It was originally decided to compile the data into comparable categories for the individual rays and then to aggregate the output for the three rays in an attempt to rationalize the general market behaviour of raw land values within the limits of the City of Kamloops. However, because of insufficient information it was subsequently decided to eliminate Ray Y from the total sample and resulting analysis. Therefore, the following discussion is an evaluation of the entire output for Rays X and W which was systematically listed by year by compiling the data collected from assessment cards and land registry titles.

From the available data sources it was impossible to obtain a sales history, prior to development, for a significant number of the sample properties. This factor, com-

bined with the division of the total sample of 620 into a single category for each ray, made it impossible to further differentiate the total amount of sales information into several additional sub-categories. There was, however, some additional differentiation required which was essential in order to be able to compare and evaluate sales characteristics.

The first necessary compiling distinction was between acreage parcels (Property Type I) and subdivided lots (Property Type II). These two property types form the basis for deriving the price per unit for each vacant parcel, with the price for each lot computed, per one hundred square feet, from the recorded dimensions. Unfortunately, there are very few acreage sales recorded during the study period and those which are recorded contain less than six acres and are often comparable in area with large lots. This phenomenon is primarily due to the subdivision pattern which has occurred in the study areas and makes it difficult to attempt to state and justify the market behaviour of acreage sales within the Kamloops region. As a result, following a brief discussion of the characteristics of the acreage transactions the emphasis will shift to an analysis of general subdivision practices and sales characteristics of subdivided lots as a basis for formulating conclusions on speculation and the efficiency of land use in the study areas.

As stated in Chapter III, an important determinant of

potential use and, consequently, the expected value of raw land, subject to its future demand, is zoning. The existing predominant zoning use within the three sample areas is either R1 or R2, which permit only single family low density dwellings. By referring to early zoning maps it was apparent that residential zoning has existed in the study areas since zoning restrictions were initially introduced prior to development. It was therefore decided to divide both property types further into simply a residential or non-residential classification to determine any effects of zoning on price.

The final sub-group established for the individual rays was by enumeration districts. This additional classification provided two main advantages which facilitated a more effective analysis of the output. First, the enumeration districts are definable geographic areas whose boundaries intersect with the rays and consequently divide the length of the ray into smaller comparable districts which are progressively farther from the ray's point of origin. The second advantage of using enumeration districts is that it is possible to compare census data, compiled by enumeration districts, with the growth pattern of each district during the study period.

In summary, the data was compiled for each sample unit according to its property type (acreage/square feet), zoning, and enumeration district for Rays X and W. Sales of acreage

parcels are, however, evaluated only as an aggregate sample of the combined rays. The evaluation of the sales characteristics of vacant lots is performed separately for Ray X and Ray W under the two zoning classifications and enumeration districts. However, it will also be necessary to aggregate the results of the analysis of the individual rays into one evaluation in Chapter VII in order to present meaningful conclusions to the study. Finally, due to the non-existence of sales information prior to 1962, it was necessary to change the index year from 1949 to 1962 and to disregard the small number of previous sales.

Property Type I - Acreage

There are thirty-eight individual acreage parcels in the total sample of 620 observations. However, there is no sales information available for the period after 1949 and prior to development for thirty-three of these properties. Of the remaining five properties, three sold twice providing only eight sales as a basis for observing acreage sales characteristics.

It would be both misleading and unrealistic to relate an aggregate total of eight sales, for the three sample rays, to the study objectives and then proceed to list conclusions about sales transactions involving acreage properties derived from this correlation. In the succeeding section, it will be shown that the well-defined pattern and

immediate proximity of adjoining subdivisions in the study area resulted in the formation of large vacant "pockets" of undeveloped lots in contrast to acreage parcels which would have provided a history of acreage sales since 1949. In addition, the assessment cards for Kamloops only provided the required information for undeveloped acreage after subdivision occurred and did not record the origin of a subdivided lot. That is, the chronological sales history for each legal parcel in most cases begins in the year of subdivision.

For the benefit of a future researcher considering the use of the study region to evaluate the market behaviour, with respect to acreage parcels, the author recommends certain definition and procedural changes to the original study. These changes primarily involve the limits of the selected rays and restructuring the method of data collection.

The first suggestion is to enlarge the defined study area by including the unorganized communities adjacent to the city limits. As illustrated in the preceding chapter, these communities are rapidly developing and still contain large unsubdivided areas. This increase in the size of the sample area would be accomplished by extending Ray X and Ray Y across Westsyde and Brocklehurst respectively. (For the purposes of this study, it was intended to extend Ray Y into Brocklehurst but due to the time con-

straints this was not possible.) In contrast to Rays X and Y it would not be advisable to extend Ray W beyond the limits of Sa-hali as the line would simply traverse vacant unsubdivided forest land under government control. The extension of each ray would considerably increase the total cost of data collection as, in addition to the City's assessment cards, it would become necessary to also use the provincial assessment cards as a source of information. However, this additional expense would be valid considering the substantial minimum cost of evaluating properties along a shorter ray which contributed so few acreage properties to the sample.

The second suggestion, which would benefit future analysis of acreage sales, involves the actual data collection within both the existing or enlarged study area. Although it is unquestionable that without the existence of the Land Registry System and access to the assessment cards it would not have been financially feasible to commence this study, the total reliance on these documents as a source of information was not a satisfactory procedure. These two sources only adequately provided sales information for an acreage parcel during the period between subdivision and development. Usually when subdivision occurred a different legal identification was attached to the new lot and it was seldom possible to trace the property backward past the subdivision date on the assessment card. As an alternate trace, the Land Registry Title

number was used and from the document it was possible to determine the origin of the lot but the sales price of the acreage was seldom disclosed. However, the titles did provide an accurate record of the name, address and occupation of the registered owner, making it easily possible to trace the past owners. It was soon discovered that in the study areas there were a few large developers who sold the lots to either small builders or private individuals who then improved the property. It is necessary, therefore, to combine the use of the present data sources with the co-operation of these developers who could provide the required sales information which is not available on the assessment cards. This additional procedure would also increase the cost of information collection and require access to private information, but it would certainly increase the total number of acreage units in the total sample and consequently the value of the study with respect to the stated objectives.

The author has preceded the analysis of the sales history of the five acreage parcels with suggested procedural changes to emphasize the importance of these changes. Having completed outlining the suggestions it is desirable at this point in the discussion to briefly evaluate the characteristics of the eight recorded sales, without stating conclusions, to illustrate the evaluation procedures that would have been performed using a suitable sample.

The five sample units are located in the three study areas as follows:

TABLE I

<u>Property Number</u>	<u>Ray</u>	<u>Area</u>
1	X	.93 Acres
2	X	.39 Acres
3	Y	1.88 Acres
4	W	2.41 Acres
5	W	1.30 Acres

Table I illustrates the fact that not only is the largest unit less than 2.5 acres but that two of the properties are comparable in size to large individual lots.

The properties are located in Figure I according to the 'Property Number' in Table I. The objective of identifying the parcels on a map is to relate the sale dates first to the subdivision date and secondly to the year when the services were installed by either the City (Ray X and Ray Y) or the eventual residential developer (Ray W). With a large sample of acreage parcels it would have been possible to determine the holding periods and turnover rates of these properties by calculating the time period the land was held between sales and the total number of sales prior to development.

Before concluding this section on 'acreage' each unit identified in Figure I is discussed separately to provide an idea of the information from which conclusions on speculation and general market behaviour would be formed for a larger acceptable sample.

Property #1: is situated in the Windsor Park subdivision (1963). The subdivision was sewerred in 1966 at the same time as the street system was improved by the City. The property is not yet developed but is surrounded by improved lots. The property is held by a corporation who purchased it in September 1968 for \$12,500 (RAY X)

Property #2: is situated adjacent to Property #1 in the Windsor Park subdivision. This property is still vacant also and has only one recorded sale for \$1,500 in 1966, the same year in which sewers were installed. (RAY X)

Property #3: is situated at the corner of Fortune Drive and 6th Avenue, the main arteries providing accessibility from the study area to the City of Kamloops. The first recorded sale is in January 1961 for \$6,300 to a private individual, but this property sold again in January 1962 to a second individual for \$11,650. The significant increase is probably due to increased demand for the site due to its strategic location at the junction of the main traffic arteries and possibly its 'service commercial zoning' (C4). (RAY Y)

Property #4: is situated at the origin of Ray W in a subdivided area at the base of the hill below Sa-hali. The vacant parcel was purchased in January 1958 for \$7,000 by a private individual and sold to the City in January 1965 for \$18,000, remaining undeveloped. (RAY W)

Property #5: is situated in the vacant area south of the main subdivided area of Sa-hali. This property has one recently recorded sale for \$10,000 in July 1969. (RAY W)

Finally, Table 2 lists the average sale prices per acre for the sample parcels, during the study period. Since the study area is part of a rapidly expanding region, experiencing an increased demand for land, it is not surprising that the price of land has increased significantly. Unfortunately, without more sales it is impossible to attempt to determine what proportion of this per acre increase is due to the development process or the process of economic and demographic growth. The following table does not intend to represent the change in the average price per acre for raw land in the City of Kamloops but merely provides the average obtained from the limited information.

TABLE 2

<u>Year</u>	<u>Average Sales Price Per Acre</u>
1958	\$2,904
1961	3,351
1962	6,196
1965	7,468
1968	14,220

In summary, although it is impossible to conclusively resolve the questions stated in Chapter II, re the case of vacant acreage, it is hoped that the preceding discussion will serve at least three useful purposes. The first purpose is to point out the need for redefining the study area to include the Metropolitan region and secondly to encourage the inclusion of corporate developers in the data collection procedure. Finally, it is hoped that the brief description of the sales history for each property, related to location, will illustrate the information available from which to formulate conclusions.

Property Type II - Subdivided Lots

The information obtained for the second property type, lots in units of one hundred square feet, provides an adequate representative sample as a basis for formulating the sales patterns of subdivided lots since 1962. As mentioned in the last section it was impossible, due to time

constraints, to extend Ray Y across Brocklehurst, and as a result Ray Y consists of only seventy-two properties. Therefore, the conclusions to the study, with respect to sales characteristics of vacant lots, do not take into account either the market behaviour of lots on the Y axis, or sales prior to the index year (1962). The analysis will consider the data accumulated for Ray X and Ray W separately; however, preceding the examination of Ray X, the following three tables are presented to illustrate the breakdown of recorded sales of raw land aggregately by year in addition to providing cumulative turnover rates.

TABLE 3

<u>Ray</u>	<u>Total Number of Properties</u>	<u>Total Number of Sales (1962-1970)</u>	<u>Turnover (Percent)</u>	<u>Average Turnover (1962-1970)</u>
X	368	223	60.6%	6.73%
W	<u>180</u>	<u>97</u>	<u>53.9%</u>	<u>5.98%</u>
Total	548	320	Average 57.3%	6.36%

TABLE 4

Total Number of Sales by Year of Sale

	X		W	
	<u>Sales</u>	<u>Percent</u>	<u>Sales</u>	<u>Percent</u>
1962	10	4.4%	-	-
1963	2	.9%	-	-
1964	2	.9%	-	-
1965	41	18.4%	6	6.2%
1966	78	34.9%	6	6.2%
1967	42	18.9%	5	5.2%
1968	17	7.7%	22	22.6%
1969	18	8.1%	19	19.6%
1970	13	5.8%	39	40.2%
	<u>223</u>	<u>100.0%</u>	<u>97</u>	<u>100.0%</u>

TABLE 5

Turnover of Lots by Year (1962-1970)

	X		W		Aggregate (X+W) Sample	
	<u>Sales</u>	<u>Percent Turnover of Sample X</u>	<u>Sales</u>	<u>Percent Turnover of Sample W</u>	<u>Sales</u>	<u>Percent Turnover of Total Sample</u>
1962	10	2.71%	-	-	10	1.82%
1963	2	.5%	-	-	2	.36%
1964	2	.5%	-	-	2	.36%
1965	41	11.14%	6	3.33%	47	8.57%
1966	78	21.2%	6	3.33%	84	15.32%
1967	42	11.41%	5	2.78%	47	8.58%
1968	17	4.62%	22	12.22%	39	7.12%
1969	18	4.89%	19	10.55%	37	6.75%
1970	13	3.53%	39	21.66%	52	9.48%
	<u>223</u>		<u>97</u>		<u>320</u>	

Ray X (Enumeration District #74)

As illustrated in Figure VII (Chapter IV) the urban area crossed by Ray X was subdivided in four separate stages, commencing in 1958 and progressing outward from the ray's origin point. The latest subdivision, Westmount, began development in 1966 succeeding the establishment of Riverdell (1958), Brentwood (1960) and Windsor Park (1963). As evidenced by Table 4 the sales activity along Ray X did not commence until 1962 and construction activity reached a peak four years later. Excluding Riverdell, the author believes this growth pattern is correlated to a significant degree with the installation of sewage disposal systems (Figure VIII, Chapter IV) by separate municipal by-laws and the construction of the Overlander Bridge in 1962. (Figure IX, Chapter IV). These two public conveniences combined with a diminishing supply of land suitable for residential development in South Kamloops provided the attraction necessary to cause prospective home owners to gravitate north across the Thompson River beyond the then existing city limits.

To facilitate the discussion, Ray X has been divided into four sections corresponding with the boundaries of each subdivision. Each subdivision contains the following number of legal parcels and sample properties:

TABLE 6

<u>Subdivision</u>	<u>Total Number of Legal Properties (Lots)</u>	<u>Properties in Sample</u>	<u>Percent Sampled</u>
Riverdell	120	100	83%
Brentwood	103	89	88%
Windsor Park	198	144	72%
Westmount	<u>155</u>	<u>35</u>	23%
	576	368	

Riverdell 1958 (Sewage 1962)

Of the total 120 legally defined parcels in Riverdell, 117 properties are residential lots whose average dimensions are 75' x 105'. The three remaining properties are commercially zoned and border on the main traffic artery (Sixth Street), with the largest parcel (7.43 acres) listed as the only unimproved property in this portion of the sample. There are no recorded sales for the commercial properties and consequently all sales data relates to the residential lots.

Riverdell was subdivided in 1958 by the Town of North Kamloops and from the data it was possible to obtain development dates for eighty-three lots in the subdivision sample containing one hundred properties. These lots were improved with houses primarily by private builders who developed the subdivision, by year, in five periods as follows:

TABLE 7

<u>Year of Development</u>	<u>Total Number of Lots Developed</u>	<u>Proportion of Lots Developed (Cumulative)</u>
pre 1958	1	1.2%
1958 (subdivision)	13)	16.8%
1959	22)	43.4%
1960	15)	61.4%
1961	15)	79.5%
1962	12)	93.9%
1963	2	96.4%
1964	1	97.6%
1965	-	97.6%
1966	-	97.6%
1967	-	97.6%
1968 residential 1) commercial 1)	2	100%

The figures indicate that only one lot in the sample was improved prior to 1958 and by 1963 only three sample residential lots were vacant. Since a sewage disposal system was neither installed by the Town or required of the developer during the settlement period, it could be concluded that septic tanks were acceptable and that an existing sewage system was not an important criterion when a prospective buyer considered purchasing a vacant lot.

From examination of the data on Brentwood it is quite evident that until 1965 Riverdell annexed the concentration of new growth on the urban fringe of the City

of Kamloops even though Brentwood was subdivided in 1960. That is, Riverdell was almost entirely 'built-up' before the residential sector expanded to include the prematurely subdivided area to the north. As a result of this subdivision process few large pockets of vacant residential land remained within the expanding urban perimeter.

Due to the rapid development in Riverdell, the derivation of a reliable table describing changing lot values is not plausible as few lots sold more than once prior to the construction of site improvements. The following table merely represents an unindexed trend in value per hundred square feet tabulated from sales for three available years for the purpose of comparison with Brentwood, Windsor Park and Westmount.

TABLE 8

<u>Year</u>	<u>Price Per Unit</u> (100 sq. ft.)
1962	27
1963	29
1964	33
<u>Brentwood</u> 1960 (Sewage 1962)	

The second subdivision, moving outward from the origin of Ray X, contains 103 properties with the sample representing 89% of these subdivided residential lots. By comparing the subdivision and sewage installation date with the most active construction years, there is a

definite time lapse between these dates as illustrated in Table 9.

TABLE 9

<u>Year of Development</u>	<u>Total Number of Lots Developed</u>	<u>Proportion of Lots Developed (Cumulative)</u>
1960 (subdivision)	-	-
pre 1965	4	4.6%
1965	14	20.9%
1966	49	77.9%
1967	17	97.7%
Not Developed	2	100.9%
	<u>86</u>	

The preceding table indicates that an excess of serviced building lots were placed on the residential land market by the Town of North Kamloops, which authorized the subdivision plan for Brentwood in 1960. At this time the demand for residential lots was being adequately met by the existing supply. Otherwise, the price per lot would have increased substantially in Riverdell and prior to 1965 purchasers would have traded closer proximity to the City for a less expensive building site in Brentwood. This example of an over supply of serviced lots illustrates the repeated premature conversion of agricultural land to a dormant residential use on the urban fringes of the majority of cities. In contrast, by using the powers within Section 702 (2) of the Municipal Act of British

Columbia, the Town of North Kamloops could have prevented this costly situation through a prohibitive zoning by-law. In the long run, the Town's attempt to attract growth and expand the tax base in actuality increased the cost of providing services to the scattered population. In addition, the installed utilities were utilized to only a proportion of their potential capacity until the excess building sites were required, commencing in 1966.

From Table 9 it is also evident that in 1966, one year after major construction began in Brentwood, forty-nine of the total eighty-nine (55%) sampled sites were improved. By 1967, three years after construction commenced, this figure had increased to ninety percent. Also, the forty-nine units constructed in 1966 represent twenty-five percent of the total number of units constructed in North Kamloops in that year. The author believes this fact illustrates that if the 'municipal mind' would plan its expansion in co-ordination with forecasted demand, by using existing municipal legislation rather than attempting to annex growth by making concessions to developers, such as only requiring funds to gravel roads in Brentwood, much of the criticism levelled against speculators would disappear.

The changing site value for available properties in Brentwood is given in Table 10. Thirteen properties in the Brentwood sample sold twice prior to development and their value per one hundred square feet is as follows:

TABLE 10

Price Per 100 Square Feet
(Dollars)

<u>Property</u>	<u>1965</u>		<u>1966</u>		<u>1967</u>		<u>Year Improved</u>
1	8/65	\$26					1966
	11/65	\$35					
2			11/66	\$45	1/67	\$44	1966
3			3/66	\$36	4/67	\$53	1967
4			3/66	\$40	2/67	\$58	1967
5			(3/66	\$32			Vacant
			(4/66	\$32			
6			4/66	\$74	2/67	\$45	1967
7	11/65	\$15	3/66	\$32			1966
	10/65	\$37					
8	12/65	\$37					1966
9	(10/65	\$33	7/66	\$45			1966
	(
10	(10/65	\$33	11/66	\$52			1967
	(
11	(10/65	\$33	10/66	\$48			1966
	(
12	(10/65	\$33	7/66	\$45			1966
	(
13	(10/65	\$33	5/66	\$48			1966

The definition of speculation earlier cited in Chapter II was 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. In this regard it is significant that although there was a time lag of almost five years between subdivision and major development, except for one lot (#5), when the properties were demanded by the market, the maximum holding period between the last two

sales prior to improvement was less than thirteen months. By examining the 'owner types' of the subject properties it was found that seven of the lots were held by companies and that they were then sold to building contractors while five of the remaining lots were held by individuals. The author would submit that although substantial profits are recorded over short periods of time both by individual and corporate owners the definition of speculation is not supported in this case as it was previously shown there was little demand for the lots between 1962 and 1966. Therefore, in order to account for the profits it is more applicable to restate Ratcliff's statement that due to the nature of the real estate market "it is characteristic that the seller is inexperienced and unfamiliar ... with market prices" ... in addition to the purchaser. In conclusion, the sale prices for the lots are reacting in this case in a manner typical of the activity in a commodity market involving both risk and the opportunity for profit, however premature subdivision supported by municipal authorities not exercising subdivision controls certainly provides the time period for speculative activity to occur before the raw land market reacts.

Windsor Park 1963 (Sewage 1966)

The development history of Windsor Park is in some respects similar to Brentwood's. There was a definite time lag but its duration until major construction was

approximately two and one-half years in comparison to Brentwood's five year period. It is believed that the same reasons as given for Brentwood's growth pattern are applicable to Windsor Park. This subdivision contains 198 lots represented by a sample of 140 residential lots and four lots zoned for commercial use. As previously, all sales data relates solely to residential lots in the sample.

The following tables, together with brief supporting comments are presented primarily for comparison with preceding tables.

<u>TABLE 11</u>		
<u>Year of Development</u>	<u>Total Number of Lots Developed</u>	<u>Proportion of Lots Developed (Cumulative)</u>
1963 (subdivision)	-	-
pre 1965	12	8.5%
1965	10	15.7%
1966	24	32.8%
1967	28	50.0%
1968	15	60.7%
1969	12	69.2%
1970	9	77.1%
Vacant	24	100.0%

Table 11 contrasts with Table 9 in two significant respects. First, construction actually shows a more gradual increase and decline than is exhibited by Riverdell and

Brentwood's growth pattern. The second difference is that a large group of vacant properties are still available for development; however, this is probably because Ray X is approaching the existing urban fringe area.

Table 12 illustrates the changing site values for the six parcels in the subdivision for which sales information was available.

TABLE 12

Price Per 100 Square Feet
(Dollars)

<u>Property</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Year Developed</u>
1				2/69 \$57	3/70 \$60	1970
2				2/69 \$57	5/70 \$60	1970
3		10/67 \$53	9/68 \$53			1970
4						1969
5	1/66 \$37	6/67 \$40				1968
6	1/66 \$32	6/67 \$35				1967

The preceding figures indicate more stable market prices over the five year span. Possibly related to this is the fact that five of sales involved professional owners in the form of real estate agents or builders. The maximum holding period is eighteen months; however, it is unlikely that lots were held vacant while a speculator waited for his opportune moment of development as there was an existing excess of building lots during this period.

Westmount 1966 (Sewage 1966)

The last subdivision which Ray X traverses is Westmount which was both subdivided and sewered in 1966. It should be pointed out that although Ray X terminates at the C.N.R. tracks, Westmount extends further north to the City limits where it joins the community of Westsyde. As a result, the sample consists of only 35 parcels from which the following sales characteristics have been determined.

The development pattern in Westmount exhibits more similarities to earlier growth in Riverdell than in the intermediary two subdivisions. With the sewers already installed, eliminating the possibility of tearing up the roads, significant construction commenced in 1967 as compared to succeeding years.

TABLE 13

<u>Year of Development</u>	<u>Total Number of Lots Developed</u>	<u>Proportion of Lots Developed (Cumulative)</u>
pre 1966 (subdivision)	6	
1966	3	
1967	15	
1968	4	
1969	2	
1970	-	
Vacant	-	

One wholly unexplainable fact related to Table 13 is that the sample does not contain a property which was developed in 1970 or a vacant lot. It is suggested that this factor is partially correlated with the attraction of an existing sewage disposal system.

It is also important to note the change in the price of lots especially for three parcels which were purchased by a professional developer in this sewered area and subsequently sold at a substantial loss. It is possible that this is merely an isolated instance where a 'speculator' happened to lose over \$3,000 per lot within one year but the example is presented to illustrate the realistic risks of speculative activity. It is believed that the same company held properties 1-6 and 8-11 and each of these lots were sold to private individuals who improved the sites. In addition, the holding period is less than two years and there is no evidence that owners held lots off the market when there was an excess supply of lots in existence.

TABLE 14

Price Per 100 Square Feet
(Dollars)

<u>Property</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1970</u>	<u>Year Developed</u>
1	6/66 \$100 9/66 \$ 46				1967
2	6/66 \$ 50	4/67 \$46			1967
3	6/66 \$100	1/67 \$46			1967
4	6/66 \$100	6/67 \$46			1967
5	6/66 \$ 49	9/67 \$45			1967

<u>Property</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1970</u>	<u>Year Developed</u>
6	6/66 \$38	7/67 \$37			1967
7				7/70 \$45 12/70 \$55	Vacant
8		6/67 \$26 9/67 \$29			1969
9		6/67 \$36	5/68 \$46		1968
10		6/67 \$36	8/68 \$47		1968
11		6/67 \$21	11/68 \$29		1968

The preceding concludes the evaluation of the property sales contained in the largest sample of the study which was selected randomly by the extension of Ray X from Fortune Drive and 6th Street north to the C.N.R. tracks. It is hoped that by dividing the discussion into sections and relating each section to the subdivision process, the objective of describing the determinants of the historical growth pattern with regard to vacant lots has been achieved. Conclusions pertaining to this section (Ray X), and the entire sample are stated in Chapter VII.

Ray W - Sa-hali

The study area known as Sa-hali, situated in the southwestern sector of the City of Kamloops, is presently composed of approximately eleven commercial properties and two hundred and fifty residential lots. The sample contains the eleven commercial properties and 169 lots representing 72% of the total number of existing residentially zoned properties.

As illustrated in Appendix B, Sa-hali has been developed to date in nine distinct sections which are extremely irregular in shape. This irregularity is due mainly to the topography of the area which is steep sloping on the north with a more gradual incline on the southern boundary. The 'bank' formation on the north has provided a large number of view lots overlooking the City of Kamloops and the North Thompson River Valley. The growth pattern has systematically progressed eastward along the brow of the hill, commencing at the Trans Canada Highway, which has provided the sole access to the area. Appendix B illustrates the position and importance of the Trans Canada Highway as an access route to Sa-hali. It also shows the route of the partially completed Trans Canada Highway By-pass situated south of Kamloops. This new road system will undoubtedly provide an impetus to development of the presently vacant land to the south of the existing subdivided area, providing additional access to the City of Kamloops.

Due to the irregular pattern of subdivision, it is impossible to divide the sample area into sections as was done for Ray X. Consequently, the discussion and Tables are representative of the development of the complete sample selected by extending Ray W in a south-western direction across the centre of Sa-hali. It should be emphasized that topography and access to a main traffic artery (Trans Canada Highway) are the two main criteria which have dictated the past subdivision pattern in Sa-hali. In addition,

the City's subdivision by-law, as outlined in the next paragraph, has decidedly affected the growth pattern.

As stated in Chapter IV, the developer must install all roads and utilities in Sa-hali with the City only responsible for the provision of sidewalks and street lighting. These development regulations are a form of control which was not used in any of the four subdivisions comprising Ray X. In addition to decreasing the City's initial capital costs, these regulations have to a significant degree limited the excess supply of residential lots as a developer attempting to recover his expenses plus a 'developer's profit', while minimizing carrying costs, will not service unsaleable lots if there is no immediate demand for these properties. The reader could probably cite examples where excess serviced lots have been created; however, it should be pointed out that the Kamloops region represents a relatively small land market in comparison to larger Metropolitan areas where the author believes the majority of these cited samples occur. That is, it is relatively easy to correlate demographic and economic growth to expected family formation in Kamloops, and forecast a demand for serviced lots. It is suggested that if the Town of North Kamloops had used stringent subdivision regulations it could have remained separate from the City of Kamloops rather than being forced into amalgamation mainly because of financial difficulties due to the requirements of servicing a 'sprawled' area.

The first construction in Sa-hali occurred in the eleven commercial properties bordering the Trans Canada Highway in 1962 at the western entrance to the City of Kamloops. It is significant that this is the year in which the Roger's Pass section of the Trans Canada Highway was completed and that the majority of the sites are motels. It is unfortunate that no sales information pertaining to these sites prior to development is available, nor is there recent information which might illustrate the affects, if any, of the Trans Canada Highway By-pass on these properties.

The residential sites to the east began development in area surrounding the school in 1965.

In 1966 construction declined but it increased again in 1967. Sa-hali is still experiencing the fastest growth rate within the City limits on the South Shore and will continue to expand south towards the new highway. Generally the lots are above average price in comparison to the Kamloops region; however, they are completely serviced and most afford an excellent view.

TABLE 15

<u>Year of Development</u>	<u>Total Number of Lots Developed</u>	<u>Proportion of Lots Developed (Cumulative)</u>
1965	13	11.4%
1966	6	16.7%
1967	11	26.3%
1968	22	45.6%
1969	19	62.3%
1970	20	79.8%
Vacant - (Sold 1970)	23	100.0%

In the entire sample of 180 units, there are only four residential lots which sold more than once as raw land. This conclusively illustrates the effect of subdivision controls in that the serviced sites were improved and immediately sold and improved according to market demand, eliminating any speculative activity in excess lots. However, there exists 38 units which are listed as undeveloped, but 35 of these properties were subdivided in 1970 and 1971 and more recent sales data would probably provide the improved sale price of these parcels.

Following a discussion of the various available methods of land use controls in Chapter VI, the final chapter presents conclusions, based on the preceding analysis, as well as their respective relationship to the discussion contained in Chapter II and Chapter VI.

CHAPTER VI

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 regulators of the pri-

vate urban land market processes, and as direct participants in this process.

The condition of state ownership represents the method of complete assertion and control, while state regulations 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 practiced 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 represented 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 behaviour", and (b) "interdependency and externalities".

Market Behaviour

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 sub-

stantially 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 of 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, while, 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 use 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 is 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 favour 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 prohibiting 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 preservation 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, Rowlson 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 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

- R.U. Ratcliff

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 indispensable 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 Delafous 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 Rawson'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," "though 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 used 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. Opponents 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 landowners 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 proposed new use, no matter how small the prospective harm. As an example, land-use changes leading to higher-density housing in a particular neighborhood 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 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 sub-

stantial 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 its 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 American 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 accomodate 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 and for several years the

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 Parliamentary 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 Institute 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 VII

CONCLUSIONS

Introduction

Although it was earlier concluded that non-excessive speculation in commodity markets is generally considered an accepted and beneficial activity, it was also affirmed, based on the discussion of the "presumed effects of land speculation" in Chapter II, that speculation in undeveloped land is becoming increasingly criticized. Not merely is public criticism growing, but many are attributing the prime cause of increased land values to the activity of 'land speculators' who are exemplified as 'profiteers' at the expense of the prospective buyer who purchases land with the intention of improving the site for private use. This study was originated to either verify or disprove this theory by restructuring, by computer, the sales characteristics of undeveloped land transactions in the City of Kamloops, British Columbia from 1949-1970. The objective was to empirically illustrate the effects of any apparent

land speculation on land values and the established urban growth process of prematurely subdividing agricultural land into residential sites. The procedure of isolating the causes contributing to changes in raw land values was accomplished by formulating a time series analysis to study undeveloped land sales between 1949 and 1970.

Conclusions

The most significant general conclusion derived from observing the sales characteristics of land sales in two distinct sample groups, is that 'land speculation', as delimited by any previously cited definition of this term in Chapter II, is positively correlated to the type of public control exercised over developers, contractors, real estate agents, or individuals in the sample area; that is, the conclusions to the study are linked with incentives or discentives to buy and sell undeveloped land over time as dictated by legislated controls. Consequently, the following observations and conclusions are presented in two separate sections in order to examine the strength of this positive correlation. The first section presents the conclusions related to Ray X (Kamloops North) and is subsequently followed by the conclusions associated with Ray W (Sa-hali).

Ray X (Kamloops North)

As previously outlined in Chapter V, Ray X traverses four existing subdivisions (Riverdell, Brentwood, Windsor Park and Westmount) whose geographical boundaries are delimited in Figure IV-VII. The local government of the Town of North Kamloops authorized four separate subdivision bylaws in the stated years (Figure IV-VII) requiring in each case that the developer or developers merely deposit sufficient funds with the Town to gravel the subdivision's roads. The developer was not required to provide any services, such as sewage, as these services were to be financed by municipal taxes at a later date, as dictated by the degree of residential development. The Town's basic reasoning in establishing this extremely lenient development policy was that it felt it could annex significant population growth from the adjacent City of Kamloops by providing accessibility to the City via the Overlander Bridge and consequently increase its tax base to provide the required services such as paved streets, lighting and sewage. This policy in itself has had the greatest effect on land prices and speculative activity as substantiated by the tabulated results of the statistical analysis which are discussed for each subdivision.

In Riverdell (subdivided 1958) the findings indicate that there was a demand for unimproved residential lots immediately after subdivision was authorized, and possibly it was this demand which initially caused the first subdivision

bylaw to be enacted. By 1962, less than five years after subdividing the agricultural acreage into lots, 94% of these sites were developed. These lots were typically sold once by a real estate vendor to a construction company or individual who immediately improved the vacant site. In the case of Riverdell, the analysis indicates that in the absence of restrictive controls on developers or land speculators with respect to developers' costs, lots were not held off the market but were sold immediately and improved and that this process was due solely to the existing demand for these sites.

Prior to Riverdell being built-up completely, the second subdivision bylaw was legislated establishing Brentwood as a contiguous subdivision to Riverdell in 1960 (Figure IV-VII), and consequently shifting the urban fringe further outwards. This second subdivision, along Ray X, immediately provided an excess of serviced building lots and in the following five years only 4.6% of the available lots in Brentwood were improved. There are two basic reasons for this excess supply of building sites which collectively represented the premature conversion of productive agricultural acreage into an unrequired residential use and which also provided the catalyst for speculative activity.

Firstly, there was still an adequate supply of lots of competitive price available in Riverdell which is situated in a closer proximity to the core of the City of Kamloops

as well as other existing services and amenities. Consequently, with better accessibility and services prospective buyers obviously purchased lots in Riverdell until it was completely developed in 1964.

The second reason for an excess of lots relates directly to the development requirements placed on developers and land speculators by the Town of North Kamloops. As explained previously, each developer was only required to deposit sufficient funds with the Town to gravel the roads in the subdivision. This capital cost represents an insignificant carrying cost in addition to interest and taxes, in the form of vested capital, if the developer cannot immediately sell the lots fronting on the roads. Accordingly, it is concluded with respect to Brentwood that the developer or speculator, in the five year period between subdivision and significant construction, was being encouraged to hold land "with the hope that it could be later sold at a profit" as development costs did not prohibit him in any way from holding land due to the lack of service requirements which the Town demanded. Conversely, if the developer or speculator had been required to pave the streets and install sewers, street lighting and side walks, as well as pay for the sewer impost in 1960, it is unlikely that he could have taken the risk of possibly having to finance these significant capital costs as well as carrying costs over a five to ten year period prior to selling his lots.

Although development costs were not significant factors in holding the unimproved lots between 1960 and 1965, the unit price of lots did rise substantially over the holding period and it is this phenomenon which gives rise to criticism of the speculators who were buying and selling unimproved lots. In this regard, it must be understood that when land is converted from an economically productive agricultural use to a use which is producing no income the carrying costs, represented by interest and taxes, ir- regardless of development costs, must be capitalized as there no longer is income from the land against which these items can be annually expensed. Therefore, in each successive year which the unimproved lot was held, the speculator must add to initial land cost annual taxes and interest calculated on both the land and taxes which cumulatively represent the opportunity cost of his investment. Based on an interest factor of only one percent above the existing prime rate, over a period of five years, the speculator's capitalized cost greatly increased and as a result to break-even the per unit cost of unimproved lots must increase accordingly. The author believes that many critics of speculation do not fully understand the basis on which a so-called 'speculators' profit' must be calculated. These critics basically look at the sometimes large increment between the speculators' acquisition cost and selling price, with possibly a minor adjustment based on the Consumer Price Index, but without making a necessary adjustment for carrying costs.

It is suggested that both the occurrence of an excess supply of building lots prior to 1965, as well as the speculative activity which did occur in this period, could have been greatly reduced or even alleviated if the Town of North Kamloops had legislated more stringent development requirements. These requirements, specifically requiring increased capital, would have stalled a subdivision application or subsequent authorization as long as the demand for unimproved lots was being satisfied by the remaining supply in Riverdell. This conclusion is supported by the fact that only two years after construction began in Brentwood in 1965, 97.7% of the lots were improved and only two lots in the subdivision's representative sample of eighty-nine properties remain vacant. Also, in 1966, construction in Riverdell represents 25% of the total number of residential units constructed in that year.

Two other conclusions derived from the analysis relate to the 'holding period' and 'owner type' for each property. After construction commenced in Brentwood, the maximum holding period between the final sale prior to development and development was only thirteen months. This fact does not support the claim, in this case, that speculators were holding the lots off the market, waiting for their opportune moment of sale. Secondly, it should be noted that the properties, when demanded, were not sold several times prior to development, but rather were typically sold by real estate or holding companies to building contractors

or individuals who desired to improve the site either to sell or for personal use.

It is believed that the preceding conclusions, based on the analysis of data for Brentwood, begin to illustrate some fundamental misconceptions with respect to speculation and shifts some criticism to the municipal government of the Town of North Kamloops who, by prohibitive zoning, could have controlled the supply of lots in relation to the demand for unimproved sites.

Although less than five per cent of the available lots in Brentwood were improved by 1963, the Town's government authorized the third subdivision plan (Windsor Park) in that year. This new residential subdivision bylaw eventually increased the supply of unserviced lots by 198 properties, and of the 144 units in the sample only 8.5% of these lots were improved prior to 1965. However, as a more critical consequence the author believes a new growth pattern in the Kamloops Region evolved as a direct result of this subdivision bylaw which continues to have an overall adverse effect on the growth of Kamloops.

As was explained previously, the selling price of unserviced lots in Riverdell and Brentwood remained competitive during their development period. Specifically, this meant that even though there was an oversupply of lots caused by prematurely subdividing Brentwood, the lots in Riverdell were improved prior to substantial construction commencing in

Brentwood. In contrast, when Windsor Park was subdivided, lot prices in each subdivision changed relatively, and as one progressed outwards to the newly established urban fringe the per unit price significantly decreased. As a direct negative result a definite pattern of "pocket growth" originated as purchasers began to choose between closer proximity to the City's core and decreasing lot prices in the Windsor Park subdivision. Consequently, the analysis data for Windsor Park reveals a steady trend in development between 1965 and 1970, in contrast to total development occurring in the two years after the termination of construction on available sites in Brentwood.

The existing criticism involving increasing land values, speculation, and "pocket growth", specifically in Windsor Park, relates directly to the initial decision to enlarge the urban area. The preceding discussion relating to Brentwood examined how carrying costs increase the per unit price of land, irrespective of the capital requirements placed on developers, and supporting statistical evidence conclusively illustrated that the majority of lots in Brentwood were carried for periods of between five and ten years. With these two combined factors as background, it is obvious that lot prices in Brentwood could not compete with lot prices in Windsor Park, and that values were mainly increasing in Brentwood due to capitalized carrying costs and not as a result of an increase in demand. Therefore, the author does not believe that "speculators" were realizing excessive profits from holding the unimproved lots and thereby causing "pocket settlement", but

mainly were attempting to recover the capitalized costs which they had incurred in the past. By prematurely subdividing Windsor Park, after creating an oversupply of building sites in Brentwood, the Town's decision ultimately forced even higher land values as the carrying time necessarily increased in the absence of an existing demand.

In addition to the suggested positive correlation between increasing land values and the Town's attempt to annex growth by authorizing successive subdivisions, the resulting "pocket growth" pattern which was created, possibly was the single most important factor contributing to the Town of North Kamloops' amalgamation with the City of Kamloops in 1968. An unavoidable effect of scattered residential development is that it increases the service costs of providing water, sewer, and paving which are estimated and constructed by the lineal foot. With fragmented growth in Windsor Park and Westmount (beyond the extension of Ray X) the cost\$ of eventually providing these services was increased and when finally installed, they functioned at only a proportion of their capacity. As a result, in contrast to its expectation of annexing growth and simultaneously increasing the tax base, the Town's decision not only increased land values, but it could not afford to provide the required services to the scattered population through tax revenues, as initially planned. The author believes that the financial difficulty experienced by North Kamloops, which ultimately forced amalgamation, could have been avoided by requiring developers to

provide all services except possibly sidewalks and street-lights, which could have been financed by separate revenue bylaws.

It has been assumed that the analysis data simulated for Westmount does not provide a representative picture of development in this final subdivision. This assumption is derived from the fact that almost the entire subdivision is situated north of the C.N.R. tracks which terminate the extension of Ray X. As a result, conclusions which relate specifically to Westmount and its relationship to Riverdell, Brentwood, and Windsor Park are not presented. However, it should be noted that in Westmount a sewage disposal system was constructed in the same year in which subdivision occurred and it is believed that this factor is partially responsible for the absence of vacant lots currently remaining in the sample, in comparison to existing vacancies in Windsor Park.

Prior to briefly stating additional conclusions and summarizing the analysis data for Sa-hali (Ray W), it is desirable to present a re-examination of zoning and subdivision controls in view of the outlined historical development pattern which was established along Ray X and the preceding conclusions which generally have shifted significant criticism from "speculators" to the Towns initial planning decisions.¹ That is, a second brief overview of zoning and subdivision controls will serve to further substantiate that any excessive speculation evolved primarily from the ineffective use of existing development and zoning

controls. The critical question to be answered in this regard is what pattern of growth would have evolved along Ray X given the effective use of these two specific land use controls which were outlined in Chapter VI? In this connection, the reader should first remember that this study area was originally agricultural land under the ownership of the B.C. Fruit Land Company (Figure IV - V) and, secondly, that the local government of the Town of North Kamloops could have exercised zoning controls as contained in the Municipal Act of British Columbia.

The Municipal Act expressly authorizes that the Council of North Kamloops could by bylaw:

- (a) divide the whole or a portion of the area of the municipality into zones and define each zone either by map, plan, or description, or any combination thereof;
- (b) regulate the use of land, buildings, and structures, ... within such zones, and the regulations may be different for different zones and for different uses within a zone, and for the purposes of this clause the power to regulate includes the power to prohibit any particular use or uses in any specified zone or zones.²

However, as stated repeatedly, the Town in no way attempted to prohibit the conversion of B.C. Fruit Land's acreage into excess residential lots by prohibitive zoning but insisted on authorizing continuous new subdivision. Also, if the Town had decided to limit the number of lots by prohibiting residential construction in certain areas, until an adequate demand existed, it is possible that land values would have been lower as the agricultural land would have

produced revenue to offset expenses instead of lying vacant and subject to a residential tax assessment whose cost was required to be capitalized.

In conjunction with prohibitive zoning the Town also had the power to enact the subdivision bylaw which also is provincially legislated. Although this bylaw was originally designed to regulate the layout of individual lots, it now regulates a complete subdivision. In addition, the B.C. Department of Highways regulates a provincial bylaw, "Requirements of Department of Highways Covering Submissions of Subdivision Plans". These two additional bylaws if properly coordinated could have provided a most effective means of eliminating the premature subdivisions of Brentwood and Windsor Park if the Town of North Kamloops and the Department of Highways had enforced high development standards to minimize the holding time of unimproved serviced lots and thereby decreased the number of excess lots. However, this coordinated action was also required to be combined with prohibitive residential use in specified agricultural areas, to be completely successful, as subdivision controls only operate within a development. That is, prohibitive zoning was required to control subdivision location as service and design requirements could not guarantee that the location of the subdivisions was compatible with the overall objectives of the Town or could they prevent the surrounding and isolation of agricultural land by development.

In summary, the conclusions with respect to Ray X strongly reject the suggestion that land speculation resulted in the withholding of undeveloped land thus causing disjointed growth and disproportionate land value increases. Conversely, perpetual subdivision initiated by the Town's government maintained an excess of available residential lots and as a result of local planning policies, this excess contributed to increased land values and the existing "pocket growth" pattern in North Kamloops.

Ray W (Sa-hali)

As outlined in Chapter IV, the City of Kamloops, in comparison to North Kamloops, required developers in Sa-hali to completely service all individual lots, with the exclusion of providing sidewalks and streetlights. In addition to the installation of an adequate sewage disposal system, all utilities, such as hydro and telephone, were required to be placed underground. These City regulations, as authorized by the Subdivision Bylaw, represent direct forms of subdivision control which were available, but not enacted, in any of the four subdivisions comprising Ray X. Consequently, due to the existence of these controls in Sa-hali, as compared to the absence of legislation in North Kamloops, the conclusions relating to speculative activity and land values in Sa-hali are extremely contrasting to those which were presented for Ray X. However, the following discussion clearly re-

emphasizes the general conclusion that there is a strong positive correlation between municipal land use controls and the degree of "speculation" in raw land.

As an alternative to describing the growth of Sa-hali in separate sections, it was decided to utilize a subdivision plan (Appendix B) to illustrate Sa-hali's continuous organized development. This has been accomplished by analyzing the data and combining the results with information which was obtained from the Department of Public Works in Kamloops. The following brief discussion relates to Appendix B which distinctly illustrates the effect of subdivision controls in restricting "pocket" growth.

As illustrated in the Appendix, Sa-hali has developed in nine sections progressing in an easterly direction. The north and east boundaries of the subdivision have been mainly defined by the sloping topography of the area and currently development is being forced to the south away from the hilly terrain. (Section I) Also, accessibility to the main traffic artery, serving the downtown core area (Trans Canada Highway) undoubtedly caused construction to commence at the westerly limit of the subdivision, which is contiguous to the highway. In addition, the location of the Highway explains the development of the eleven commercial properties (Section A) which are predominantly motels and hotels constructed at approximately the same time as the Roger's Pass section of the Trans Canada Highway was completed in 1962.

The first residential construction (Section B) began adjacent to the public school site and included seventeen residential lots. Following the completion of providing services for this small area, development in Section C commenced and this pattern progressed eastward between 1963 and 1970. In contrast to Brentwood (Ray X), which achieved an even growth pattern in an extremely scattered pattern, Sa-hali experienced an even organized and continuous growth pattern in these years. Also, in comparison to Brentwood and Windsor Park, the vacant parcels in Sa-hali were sold only once and immediately improved after servicing.

It is suggested that Sa-hali's consistent growth pattern, coinciding with the immediate improvement of serviced lots, is a direct result of the legislation of restrictive bylaws which cumulatively represented strict controls over developers and landowners. To support this conclusion the analysis data presented in Chapter V provides statistical evidence that only four serviced residential lots in the total sample of 180 properties were sold more than once prior to improvement. In addition, the holding time for vacant sites never exceeded one year between subdivision and the last sale.

The two preceding results, isolated by the analysis, preclude the absence of speculation and illustrate the desired effect of available controls. In essence, speculators were not operating in the land market in Sa-hali, and holding lots

off the market, because they were not given the opportunity due to the development requirements created by municipal controls. Since the subdivision requirement necessitated an immediate capital expenditure to provide serviced lots, the developer could not simply create excess building sites and carry them indefinitely. As earlier explained, the developer would receive no revenue against which he could expense his substantial capital cost if he did not sell the sites. Therefore, the City, by imposing the development controls, forced prospective vendors to estimate the future demand for building sites in order to provide an accurate measure of their expected revenues against which certain known carrying costs could be expensed over "x" months. Consequently as was proven, the lots were sold and improved and speculators were not given an opportunity to hold these lots as they were not created until demanded by the "last" purchaser.

In summary, the City, by authorizing subdivision controls, not only legislated an organized development pattern but also alleviated a repetition of the sales pattern generated in North Kamloops where speculators could hold land and thereby increase land values by absorbing the annual carrying cost and as a result increase the final selling prices for unimproved sites.

This study has empirically analyzed the growth pattern and land market in two distinctly separate areas of the Kamloops Region. In conclusion, the analysis has shown that the controlled process of subdivision in Sa-hali, as directed and governed by available Civic and Municipal controls, has resulted in an organized residential area created essentially by market demand. In contrast, North Kamloops was developed without restrictive controls which has resulted in a "pocket" settlement and a measurable increase in land values caused by holding unserviced residential sites at a minimum cost to the speculative vendor. Specifically, this single major policy difference regulating the establishment of subdivisions (control versus non-control) either provided or precluded the opportunity for speculative activity in Sa-hali and North Kamloops. It has also been concluded that the analysis of the data in this study does not provide sufficient evidence to conclude that excessive speculation has caused disproportionate land value increases in the Kamloops Region during the inter-temporal period 1949 to 1970. However, the results of the analysis do emphatically support the second section of the motion originating the study and endorsed by the Union of British Columbia Municipalities stating that:

...the enhanced value of urban and suburban land is due in no small measure to municipal planning, works and services.

REFERENCES

1. This discussion is based on a term essay, "Agricultural Land on the Urban Fringe" submitted by the author in Planning 597, April, 1971.
2. The Province of British Columbia, Municipal Act, Queen's Printer, Victoria, 1970.

BIBLIOGRAPHY

BOOKS

- Alonso, William, Location and Land Use, Harvard University Press, Cambridge, Mass., 1956.
- Andrews, R.B., Urban Growth and Development, Simmons-Boardman Publishing House, New York, 1962.
- Bair, Frederick H., Planning Cities, American Society of Planning Officials, Virginia Curtis, ed., Chicago, 1970.
- Barlowe, Raleigh, Land Resource Economics, "The Political Economy of Rural and Urban Land Resource Use", Prentice-Hall, Englewood Cliffs, N.J., 1958.
- Carver, Humphrey, Cities in the Suburbs, University of Toronto Press, Toronto, 1962.
- Catherwood, Robert, Real Estate for Profit, "A Guide to the Risks and Rewards in Real Estate", reprinted from a series in the Financial Post, Maclean-Hunter, Toronto, 1971.
- Chapin, F. Stuart, Jr., Urban Land Use Planning, University of Illinois Press, Urbana, 1965.
- Chinitz, Benjamin, City and Suburb, Prentice-Hall, Englewood Cliffs, N.J., 1964.
- Clawson, Marion, R.B. Held and C.H. Stoddard, Land for the Future, The Johns Hopkins Press, Baltimore, 1960.
- Delafons, John, Land-Use Controls in the United States, The M.I.T. Press, Cambridge, Massachusetts, 1969.
- Dorau, Herbert B. and Albert G. Hinman, Urban Land Economics, The Macmillan Co., 1928.
- Elias, C.E., Jr., et. al., eds., Metropolis: Values in Conflict, Wadsworth Publishing Co., Belmont, California, 1964.
- Ely, Richard T., and Edward W. Morehouse, Elements of Land Economics, The Macmillan Co., New York, 1924.
- Fisher, Ernest M. and Robert M. Fisher, Urban Real Estate, Henry Holt & Co., New York, 1954.

- Friedman, John, and William Alonso, eds., Regional Development and Planning, The M.I.T. Press, Cambridge, Mass., 1964.
- Green, James L., Economic Ecology: Baselines for Urban Development, University of Georgia Press, Athens, 1969.
- Goodman, William I., Principles and Practice of Urban Planning, The Municipal Management Series, International City Managers' Association, Washington, D.C., 1968.
- Haar, Charles M., Land Planning in a Free Society, "A Study of the British Town and Country Planning Act", Harvard University Press, Cambridge, Massachusetts, 1951.
- Jackson, J.N., Surveys for Town and Country Planning, Hutchinson University Library, 1966.
- Land Economics Institute, Modern Land Policy, University of Illinois Press, Urbana, 1960.
- Leahy, William H., et. al., eds., Urban Economics: Theory, Development and Planning, The Free Press, New York, 1970.
- Lean, W., and B. Goodall, Aspects of Land Economics, The Estates Gazette Limited, London, England, 1968.
- Lean, William, Economics of Land-Use Planning: Urban and Regional, The Estates Gazette, London, England, 1969.
- Lerner, A.P., The Economics of Control, The Macmillan Co., New York, 1946.
- Lithwick, N.H., and Gilles Paquet, Urban Studies: A Canadian Perspective, Methuen Publications, Toronto, 1968.
- Martin, W.T., The Rural-Urban Fringe, The University of Oregon Press, Eugene, 1959.
- Mayer, Harold M., and Clyde F. Kohn, Readings in Urban Geography, The University of Chicago Press, Chicago, 1969.
- Morse, J.J., Kamloops - The Inland Capital, A Publication of the Kamloops Museum Association for the Kamloops Centennial Committee, 1958.

- Muth, Richard F., Cities and Housing, "The Spatial Pattern of Urban Residential Land Use", The University of Chicago Press, Chicago, 1969.
- Netzer, Dick, Economics and Urban Problems, Basic Books, Inc., New York, 1970.
- Nourse, Hugh O., Regional Economics, McGraw-Hill Book Co., New York, 1969.
- Perloff, Harvey S., and Lowdon Wingo, Jr., eds., Issues in Urban Economics, Published for Resources for the Future, Inc., by The Johns Hopkins Press, Baltimore, 1968.
- Phelps, Edmund S., Private Wants and Public Needs, W.W. Norton and Co., New York, revised edition, 1962.
- Pigou, Arthur Cecil, The Economics of Welfare, MacMillan, London, 1920. (4th Edition, 1952)
- Ratcliff, Richard U., Urban Land Economics, McGraw-Hill Book Co., Toronto, 1949.
- Richardson, Harry W., Regional Economics, Weidenfeld and Nicolson, London, 1969.
- Samuelson, Paul A., and Anthony Scott, Economics, "An Introductory Analysis", McGraw-Hill Company of Canada, Toronto, 1966.
- Simmons, James and Robert, Urban Canada, The Copp Clark Publishing Co., 1969.
- Smith, Wallace F., Housing: The Social and Economic Elements, University of California Press, Berkley and Los Angeles, 1970.
- Stone, Leroy O., Urban Development In Canada, prepared for the Census Division, Dominion Bureau of Statistics, Queen's Printer, Ottawa, 1968.
- Tunnard, Christopher, and Boris Pushkarev, Man-Made America: Chaos or Control?, Yale University Press, New Haven, Conn., 1963 (5th Edition, 1967).
- Turvey, Ralph, The Economics of Real Property, George Allen and Unwin, London, 1957.
- Ukeles, Jacob B., The Consequences of Municipal Zoning, Urban Land Institute, Washington, D.C., 1964

REPORTS AND SPECIAL DOCUMENTS

- Action Society Trust, Land Values: The Report of the Proceedings of a Colloquium, Peter Hall, ed., Sweet and Maxwell Limited, London, 1965.
- Brigham, E.F., A Model of Residential Land Values, Memorandum No. R.M. -4043-RC, The Rand Corporation, Santa Monica, California, August 1964.
- British Columbia Bureau of Economics and Statistics, The Kamloops Region - An Economic Survey, Victoria, B.C., 1961.
- Chapin, F. Stuart, Jr., Factors Influencing Land Development, Institute for Research in Social Science, University of North Carolina, Chapel Hill, 1962.
- Cornell University, Centre for Housing and Environmental Studies, Division of Urban Studies, Control of Urban Land Subdivision, by John W. Reps and Jerry L. Smith, Article 3 Reprints, Ithaca, New York, 1963.
- Cross, Kevin J., Residential Land Subdivisions: A Physical Evaluation, "A Study of Selected Cases in Greater Vancouver, B.C.", Community and Regional Planning Studies, Staff Research Project 2, University of B.C., 1965.
- Department of Industrial Development, Trade, and Commerce Bureau of Statistics, Regional Index of British Columbia, Queen's Printer, Victoria, 1966.
- Englebert, Ernest A., The Nature and Control of Urban Dispersal, University Extension, University of California, Los Angeles, 1960.
- Expert Committee on Compensation and Betterment, Final Report, (The "Uthwatt Report"), British Parliamentary Papers, Cmd. No. 6386, Vol. IV, 1941-42.
- Forrest, Clyde W., The Private Property and Public-Interest Conflict, University of Illinois at Urbana-Champaign, Bureau of Community Planning, 1969.
- Government of Canada, Report of the Task Force on Housing and Urban Development, (The "Hellyer Report"), Queen's Printer, Ottawa, January 1969.
- Goracz, A., and I. Lithwick, and L.O. Stone, The Urban Future, Research Monograph 5, "Urban Canada: Problems and Prospects", Central Mortgage and Housing Corporation, Ottawa, January 1971.

Lithwick, N.H., Urban Canada: Problems and Prospects,
Central Mortgage and Housing Corporation, Ottawa,
December 1970.

Merriam, Robert E., The Subdivision of Land, "A Guide for
Municipal Officials in the Regulation of Land Sub-
division", American Society of Planning Officials,
Chicago, 1942.

Milgram, Grace, The City Expands, "A Study of the Conver-
sion of Land from Rural to Urban Use, Philadelphia,
1945-62", prepared for the U.S. Department of
Housing and Urban Development by the Institute for
Environmental Studies, University of Pennsylvania,
Philadelphia, March 1967.

Niedercorn, John H., and Edward F.R. Hearle, Recent Land-
Use Changes in Forty-Eight Large American Cities,
The Rand Corporation, Memorandum No. RM-3664-1-FF,
Santa Monica, California, September 1963.

Noble, Jack, A Proposed System for Regulating Land Use In
Urbanizing Counties, American Society of Planning
Officials, Chicago, March 1967.

North Central Land Tenure Research Seminar, "Land Use
Controls", University of Illinois College of Agri-
culture Special Publication No. 7, Chicago, 1963.

Organization of Cornell Planners, Planning the Future
Residential Environment, Proceedings of the Tenth
Annual Conference, Cornell University, Ithaca, New
York, March 1967.

Pearson, Norman, What Price Suburbia?, Lower Mainland
Regional Planning Board, New Westminster, November
1967.

Rawson, Mary, "Property Taxation and Urban Development",
Urban Land Institute, Washington, D.C.

_____, "The Public Interest in Land", paper pre-
sented at the Twelfth International Conference on
Land-Value Taxation and Free Trade, Caswell Bay,
Wales, September 1968.

Royal Architectural Institute of Canada, Report on the
Committee of Inquiry into the Design of the Resi-
dential Environment, Ottawa, June 1960.

Report of the Federal Task Force on Housing and Urban
Development, Queen's Printer, Ottawa, January 1969.

Spence, C.C., "Government Policy and Land-Use in Western Cnaada", in Modern Land Policy, Papers of the Land Economics Institute, University of Illinois Press, Urbana, 1960.

ESSAYS AND ARTICLES IN COLLECTIONS

Cribbet, John E., "Private Property and the Public Interest -- Conflict?", The Private Property and Public-Interest Conflict, Clyde W. Forrest, ed., University of Illinois, 1969, pp. 1-4.

Friedman, Milton, "The Role of Government in A Free Society", Private Wants and Public Needs, Edmund S. Phelps, ed., pp. 104-117.

Gaffney, Mason, "Containment Policies of Urban Sprawl", Approaches to the Study of Urbanization, University of Kansas Press, Lawrence, 1964.

Hannah, H.W., "Public and Private Controls of Land Use", Land Use Controls, North Central Land Tenure Research Seminar, Chicago, 1963, pp. 1-15.

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

Harris, Chauncey D. and Edward L. Ullman, "The Nature of Cities", Readings in Urban Geography, Harold M. Mayer and C.F. Kohn, eds., University of Chicago Press, Chicago, 1959.

Hayes, Charles R., "Suburban Residential Land Values Along the C.B. & Q. Railroad", Readings in Urban Geography, Harold M. Mayer and Clyde F. Kohn, eds., pp. 556-566.

Heikoff, Joseph M., "Social Determinants and the Public Interest", The Private Property and Public-Interest Conflict, Clyde W. Forrest, ed., University of Illinois, 1969, pp. 21-33.

Raup, Philip M., "Public Land-Use Controls in Selected European Countries", Land Use Controls, North Central Land Tenure Research Seminar, Chicago, 1963, pp. 21-33.

Webber, Melvin M., "Alternative Metropolitan Structures", The Nature and Control of Urban Dispersion, Ernest A. Englebert, ed., University of California, Los Angeles, 1960.

Wehrwein, George S., "The Rural-Urban Fringe", Readings in Urban Geography, Harold M. Mayer, and Clyde F. Kohn, eds., pp. 533-543.

ESSAYS AND ARTICLES IN JOURNALS, PERIODICALS AND NEWSPAPERS

Adams, F. Gerard, et. al., "Undeveloped Land Prices During Urbanization: A Micro-Empirical Study Over Time", The Review of Economics & Statistics, Vol. 50, No. 2, May 1968, pp. 248-258.

Aumente, Jerome, "Domestic Land Reform", City, Vol. 5, No. 1, January/February 1971, pp. 56-58.

Baxter, Clive, "Crackdown on Land Speculators", The Financial Post, May 4, 1968, pp. 1-2.

Black, Robert B., "The British Central Land Board", Public Administration Review, Vol. 11, No. 1, Winter, 1951.

Bourroughs, R.J., "Should Urban Land Be Publicly Owned", Land Economics, Vol. 42, No. 1, February 1966, pp. 11-20.

Broughshane, The Hon. Lord, "Dangers of a Land Commission", The Times, London, July 13, 1964, p. 11.

_____, "Will There Be Land Enough?", The Times, London, July 14, 1964, p. 11.

Bryant, R.W.G., "Land Ownership and City Development", Plan, The Journal of the Town Planning Institute of Canada, Vol. 4, No. 1, June 1963, pp. 43-50.

_____, "Land Speculation: Its Effects and Control", Plan, The Journal of the Town Planning Institute of Canada, Vol. 5, No. 3, February 1965, pp. 109-122.

_____, "An End to Land Speculation: British Style", Community Planning Review, Vol. 16, No. 1, Spring 1966, pp. 22-26.

- _____, "The British White Paper on Land", Plan,
The Journal of the Town Planning Institute of Canada,
Vol. 6, No. 3, April 1966, pp. 149-152.
- Buckwold, S., "Land Policy in Saskatoon", Habitat, Vol. 5,
No. 1, Jan-Feb 1962, pp. 2-5.
- Cho, Joe H., "Externalities and Land Economics", Land
Economics, Vol. 47, No. 1, February 1971, pp. 65-72.
- Clawson, Mary, "Urban Sprawl and Speculation in Suburban
Land", Land Economics, Vol. 38, No. 2, May 1962,
pp. 99-111.
- Clonts, Howard A., Jr., "Influence of Urbanization on Land
Values at the Urban Periphery", Land Economics,
Vol. 46, No. 4, November 1970, pp. 489-497.
- Day, C.H., "The Land Boom and the Community", Local Govern-
ment Finance, Vol. 69, No. 4, 1964, p. 243.
- Derrick, Paul, "The Law and the Land", 20th Century, Winter
1964/65, pp. 139-150.
- Dorau, Herbert B., "Urbanization and the Future of Land
Values", The Appraisal Journal, January 1949,
pp. 15-24.
- Downs, Anthony, "Private Investment and the Public Weal",
Saturday Review, Vol. 54, No. 20, May 15, 1971,
pp. 24-26, 56.
- Dukeminier, Jesse, Jr., "Forward: The Coming Search for
Quality", UCLA Law Review, Vol. 12, No. 3, March
1965, pp. 707-718.
- Dunham, Allison, "A Legal and Economic Basis for City
Planning: (Making Room for Robert Moses, William
Zeckendorf, and a City Planner in the Same Community)"
Columbia Law Review, Vol. 58, No. 5, May 1958,
pp. 650-671.
- Economist, The, "Land: The Scarcest Commodity", Vol. 195,
No. 6096, June 25, 1960, p. 1315-1317.
- Elias, C.E., Jr., and James Gillies, "Some Observations on
the Role of Speculators and Speculation in Land
Development", UCLA Law Review, Vol. 12, No. 3, March
1965, pp. 789-799.
- Fagin, Henry, "Organizing and Carrying Out Planning Acti-
vities Within Urban Government", Journal of the
American Institute of Planners, Vol. 25, No. 3,
August 1959, pp. 109-114.

- _____, "Regulating the Timing of Urban Development", Law and Contemporary Problems, Vol. 20, No. 2, Spring 1955, pp. 298-304.
- Fisher, Ernest M. "Speculation in Suburban Lands", American Economic Review Supplement, Vol. 23, No. 1, March 1933, pp. 152-162.
- Fogarty, Frank, "Land: A New Kind of Boom", Architectural Forum, Vol. 106, No. 2, February 1957, pp. 101-105, pp. 230-232.
- _____, "Land II: The Strange Case of the City", Architectural Forum, Vol. 106, No. 3, March 1957, pp. 134-136, 246-248.
- Harvey, Robert O. and W.A.V. Clark, "The Nature and Economics of Urban Sprawl", Land Economics, Vol. 41, No. 1, February 1965, pp. 1-9.
- Head, Ivan, "The Torrens System in Alberta", The Canadian Bar Review, Vol. 35, 1957, pp. 1-37.
- Heneberry, William H., "Taxes Affect Land Use in Urban-Fringe Areas", Journal of Soil and Water Conservation, May-June, 1962, pp. 107-110.
- House and Home, "Rx to Cut Land Prices: Assess Vacant Land By The Rules", Vol. 20, No. 2, August 1961, p. 78.
- Levin, E.A., "Zoning in Canada -- Are We Moving Toward A Development Permit System?", The Community Planning Review, Vol. 7, No. 2, June 1957, pp. 85-90.
- Journal of Commerce, "New C.N. Sidings Near Kamloops, June 1, 1970, pps N.A.
- Jordan, Fred, "Land Speculation in the Public Interest", City, Vol. 5, No. 1, Jan./Feb. 1971, pp. 85-86.
- Lean, William, "Town Planning and Economics", Journal of the Town Planning Institute, Vol. 52, No. 2, February 1966, pp. 45-48.
- Kamloops Daily Sentinel, "Airport Plans get Green Light", November 13, 1970.
- List, Wilfred, "Nationalization of Land Urged to end Speculation", Toronto Globe and Mail, November 6, 1967.
- Lovelace, Eldridge, "North Vancouver -- Being an Extreme Example of Excess Land Subdivision", Landscape Architecture, Vol. 40, No. 1, October 1948, pp. 69-71.

- McCandlish, Jim, "Public Ownership of City Core Proposed", Vancouver Sun, June 10, 1971, p. 19.
- Mandelker, Daniel R., "Controlling Land Values in Areas of Rapid Urban Expansion", UCLA Law Review, Vol. 12, No. 3, March 1965, pp. 734-761.
- Martin, A.L., "Land Development in Calgary", Habitat, Vol. 5, No. 3, May-June 1954, pp. 14-23.
- Miller, Frank, "Land -- Its Potential", The Appraisal Journal, Vol. 38, No. 2, April 1970, p. 240-252.
- Milliman, J.W., "Can People Be Trusted With Natural Resources?", Land Economics, Vol. 38, No. 3, August 1962, pp. 199-218.
- Mills, E.F., "Land Values in the United Kingdom Since 1946", International Social Science Journal, Vol. 18, No. 4, 1966, p. 513-126.
- Milner, J.B., "An Introduction to Subdivision Control Legislation", The Canadian Bar Review, Vol. 43, March 1965, pp. 49-98.
- Mohring, Herbert, "Land Values and the Measurement of Highway Benefits", Journal of Political Economy, Vol. 69, No. 3, June 1961, pp. 236-249.
- Munby, D.L., "Development Charges and the Compensation-Betterment Problem", The Economic Journal, Vol. 64, No. 253, March 1954, pp. 87-97.
- Muth, Richard F., "Economic Change and Rural-Urban Land Conversions", Econometrica, Vol. 39, No. 1, January 1961, pp. 1-23.
- Province, The, "Land Assembly Proposed", February 10, 1970, p. 7.
- _____, "Architect Erickson raps the 'anti-city'", May 28, 1971, p. 26.
- Rancich, Michael T., "Land Value Changes in an Area Undergoing Urbanization", Land Economics, Vol. 46, No. 1, February 1970, pp. 32-40.
- Richardson, Nigel H., "Can We Stop the Spread?", The Community Planning Review, Vol. 11, No. 2, June 1961, p. 7-14.
- Ricks, R. Bruce, and J. Fred Watson, "Land As a Growth Investment", Financial Analysts Journal, Vol. 22, No. 4, July/August 1966, pp. 69-78.

- Rowlson, John F., "Zoning vs. Alternate Value", The Appraisal Journal, Vol. 31, October 1963, pp. 513-517.
- Sibert, E.G., "Town Planning and Land Values", Journal of the Town Planning Institute, Vol. 23, No. 1, January 1952, pp. 59-62.
- Slater, David W., "The Political Economy of Urban Changes in Canada", Queen's Quarterly, Vol. 67, No. 4, Winter 1961, pp. 586-604.
- Spengler, Edwin H., "American and English Comment on the Uthwatt Report", The Committee on Urban Land Policies, Journal of the American Institute of Planners, Vol. 8, October 1942, pp. 16-20.
- Suggitt, Frank W., "Land Use Changes Linked to Highways", Journal of Soil and Water Conservation, Vol. 11, No. 6, November 1956, pp. 284-288.
- Swierenga, Robert P., "Land Speculator 'Profits' Reconsidered: Central Iowa as a Test Case", The Journal of Economic History, Vol. 26, No. 1, March 1966, pp. 1-28.
- Toronto Globe and Mail, The, "Land Commission Planned to Prevent Land Speculation in the U.K.", September 23, 1965.
- Town and Country Planning Association, "A Statement by the Executive Committee of the TCPA on the White Paper of March 1964", Town and Country Planning, Vol. 32, 1964, pp. 341, 346-347.
- Turvey, Ralph, "What is the Case for Planning?", Journal of the Town Planning Institute, September/October 1955, pp. 269-271.
- _____, "Development Charges and the Compensation-Betterment Problem -- A Rejoinder", The Economic Journal, Vol. 54, No. 2, June 1954, pp. 358-360.
- _____, "Development Charges and the Compensation-Betterment Problem", The Economic Journal, Vol. 53, No. 2, June 1953, pp. 299-317.
- Vancouver Sun, The, "Stop Land Speculators Shelford Urges Government", February 10, 1965, p. n.a.
- _____, "Land use formula for conflicts", May 8, 1965, p. 7.
- _____, "Nationalize All Farm Land", August 8, 1968, p. 6.

_____, "'An acre on the fringes' will be 1980's city living", October 19, 1970, p. 32.

_____, "'Land speculation is helping to keep prices in the city up'", September 4, 1971, p. 25.

Victoria Times, The, "Nationalize the land", January 13, 1965, p. 4.

Weaver, Robert C., "National Land Policies -- Historic and Present:", UCLA Law Review, Vol. 12, No. 3, March 1965, pp. 719-733.

Weiss, Shirley F. and Thomas G. Donnelly, and Edward J. Kaiser, "Land Value and Land Development Influence Factors: An Analytical Approach for Examining Policy Alternatives", Land Economics, Vol. 42, No. 3, August 1966, pp. 230-233.

Wendt, Paul F., "Theory of Urban Land Values", Land Economics, Vol. 33, No. 3, August 1957, pp. 228-240.

_____, "Urban Land Value Trends", The Appraisal Journal, Vol. 26, No. 2, April 1958, pp. 254-269.

_____, "Economic Growth and Urban Land Values", The Appraisal Journal, Vol. 26, No. 3, July 1958, pp. 230-245.

Wenzlick, Roy, "Rx to Cut Land Prices: Assess Vacant Land by the Rules", House and Home, Vol. 20, No. 2, August 1961, p. 78.

Williams, Norman, Jr., "Planning Law and Democratic Living", Law and Contemporary Problems, Vol. 20, No. 2, Spring 1955, pp. 317-350.

Winnick, Louis, "Economic Questions in Urban Redevelopment", American Economic Review Papers and Proceedings, Vol. 51, No. 2, May 1961, pp. 290-304.

Yale Law Journal, "Public Land Ownership", Vol. 52, 1943, pp. 634-655.

Yearwood, Richard M., "Land Speculation and Development: American Attitudes", Plan, The Journal of the Town Planning Institute of Canada, Vol. 9, No. 1, March 1968, pp. 15-23.

UNPUBLISHED SOURCES

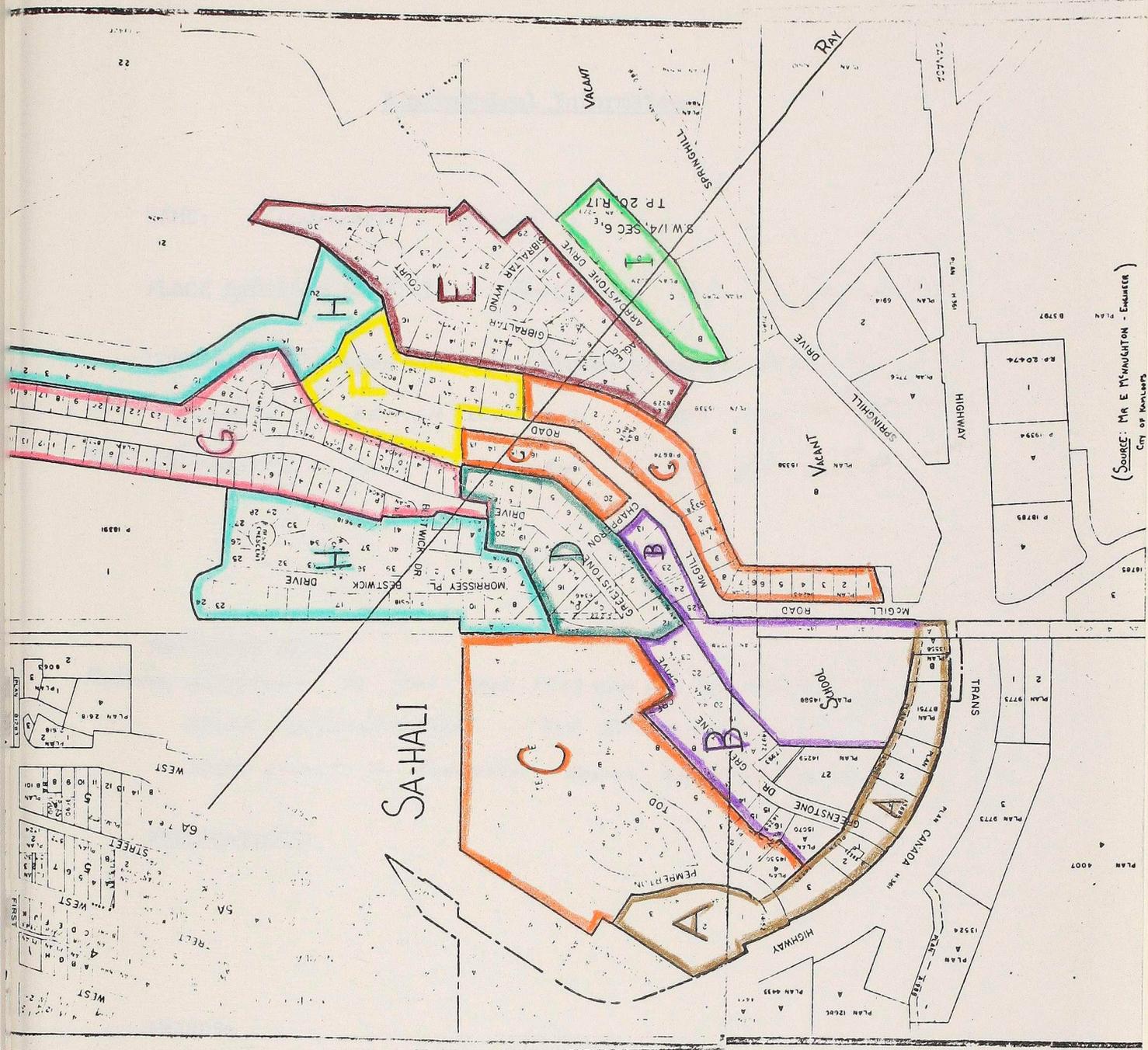
- Bryant, R.W.G., "Land Speculation -- Draft Paper",
Institute d'Urbanisme, Universite de Montreal,
February 1964.
- City of Kamloops Planning Department, Construction
Statistics 1951-1970, 1971.
- Game, Richard G., A Summary of Land Use, Thompson Valley
Regional Planning Board, 1968.
- Hamilton, Stanley W., Price Movements in Undeveloped Land
Facing Urbanization: A Micro Study, unpublished PhD.
Thesis in Business Administration, Graduate Division,
University of California, Berkley.
- Hartley, James E., 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
British Columbia, April 1963.
- Leigh, Clive M., Real Property Tax Assessments: An Exami-
nation of the Consequences of a Departure from the
Specified Basis of Assessment, unpublished MBA Thesis
in Urban Land Economics, Faculty of Commerce, Univer-
sity of British Columbia, September 1967.
- Miller, Donna, Residential Location and Expansion,
Kamloops, British Columbia 1950-1966, Department
of Geography, The University of British Columbia, 1969.

OTHER SOURCES

- Backmeyer, A., City Planner, City of Kamloops, personal
interview, April 19, 1971.
- Game, Richard G., Director of Planning, Thompson Valley
Regional Planning Board, Valleyview, British Columbia,
personal interview, February 15 and April 20, 1971.
- Headon, William, Chief Assessor, City of Kamloops, personal
interview, February 14-16 and April 19-20, 1971.
- McGregor, N., Chief City Engineer, Department of Public
Works, City of Kamloops, personal interview,
April 19, 1971.

McNaughton, , City Engineer, Department of Public Works,
personal interview, April 19, 1971.

Vernon, Ross, Engineer, Department of Public Works,
personal interview, February 14, 1971.



(SOURCE: MR. E. McNAULTON - ENGINEER)
 CITY OF KANLAYS