A STUDY OF THE LOCATIONAL DETERMINANTS OF
PRIVATE ENTERPRISE NEW COMMUNITIES
IN METROPOLITAN REGIONS

by

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Date: Sept. 1969
ABSTRACT

The growing political interest in new communities in North America in response to central city congestion and the problems of urban sprawl underscores the need for empirical data on current new community activity as it is now being applied on this continent. This study proposes an examination of such communities but with a particular problem in mind. It attempts to identify and ascertain the relative importance of the locational determinants for private enterprise new communities in metropolitan regions. The point of view taken is that the recent proliferation of these privately developed communities provides planners with a unique opportunity to help structure the future urban pattern of the metropolitan region. But if such planners are to anticipate and plan for these communities, they must strive for an understanding of the underlying decision-making criteria involved in such projects, including their possible future locations.

In addition to the basic problem outlined above, this study has also been guided by the following secondary objectives: (1) to establish the importance of examining the location of private enterprise new communities by exploring the idea that such projects reflect attempts to improve the efficiency of the housebuilding and land development industry and, therefore, represent a logical progression in the private sector's contribution to urban development; (2) to examine past new town locational experience, particularly in Britain and Scandinavia; and (3) to assess the regulatory tools presently available to planners for influencing the location of private enterprise new communities.
The methodology of the study consists in part of an extensive literature review. Since there are no studies that one can point to as dealing specifically with the locational aspects of new towns, this review involved the collection of data from a wide variety of sources. However, from the existing information available it was not possible to determine the relative importance of the locational criteria selected by new community developers. The data base was therefore augmented with a questionnaire survey of twelve developers. Eight of these questionnaires were returned although one was only partly answered.

The organization of the study first involved an examination of the changing nature of the housebuilding industry and the emergence of new communities after 1960. Reference was made to such factors as the structural shift towards the large building firm, the attempts to improve both the marketability of houses and management techniques in the industry, increasing corporate investment, and the economies in land costs to be gained by building new communities with balanced facilities further out on the urban fringe. It was concluded that the appearance of private enterprise new communities can be partly attributed to the evolution of the housebuilding and land development industry itself, and partly to the conditions of a period characterized by such variables as industrial decentralization, new freeways and a more articulate market demand.

Chapter III identifies and lists fifteen possible locational criteria that might be applied in the selection of a site for a new community. The reasons for selecting each of these criteria are discussed in turn. Where appropriate, reference is made to European experience to illustrate the applicability of a particular locational variable.
Chapter IV discusses the results of the questionnaire survey. It was emphasized that due to the small sample involved the survey should be treated as a pilot study and not as a comprehensive analysis of comparative new community experience in North American metropolitan regions. The results of the survey generally substantiate the hypothesis contended in Chapter I that the rate and direction of urban growth, land costs, land assembly, freeway accessibility and government restrictions are the most important criteria influencing the location of privately developed new communities. The two exceptions were that government restrictions were not as significant as originally thought and access to a highway was given equal rating with freeway accessibility. It was concluded that the exact order of the variables should not necessarily be interpreted as representing the true situation. But the results do give some idea as to which variables as a group are more important than others.

In Chapter V the existing regulatory tools available to planners to influence the location of new communities were examined. The various types of land acquisition techniques, in particular the land bank concept, were viewed as particularly relevant. Development sectors and skip annexation also held some potential. It was emphasized, however, that the location of new communities is very much dependent on the success of the whole land development control program. No one device, whether it be zoning, land acquisition or taxation measures is sufficient. A combination of many techniques is necessary and that increased financing should be made available to local governments for this specific purpose.

Finally, three possible administrative arrangements for planning for new communities are suggested. These are a provincial development corporation, a federal crown corporation and a provincial new community committee. None of these proposals was explored in a rigorous manner. Further research would be necessary to determine their constitutional appropriateness.
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CHAPTER I
THE PROBLEM

Statement of the Problem. The realization that fifty years ago the North American city and not the metropolitan area was a sufficient unit for analysis is indicative of the soaring population and complexity of development that have ensued in today's metropolises. The ubiquitous use of the automobile has been one factor in promoting the extension of endless suburban housing tracts. Modern industry has also succumbed to the movement outwards as sites for space-consuming light manufacturing plants cannot be found in the older urban areas. This, in turn, has devoured agricultural land and other open spaces on the margins of cities.

At the same time, the often disorganized pattern of land uses and the lengthening of the journey to work have heightened the urban traffic problem. Blight, high densities, inhuman living conditions and the resultant ghetto riots can no longer be ignored in the central cities, and certainly will not dissipate as the rural exodus continues to aggravate congestion. Sociologists and psychologists, in fact, are giving increasing attention to crowding in metropolitan areas and its impact on human values. Other experts are concerned with the diseconomies of scale experienced in large urban aggregations.
Such realities as air pollution and burdensome government expenditures, for example, have prompted many researchers to explore the possibility of an optimum size city.¹

It is not surprising, therefore, that the so-called urban development critique² has ripened as a basis for articulating the discontent expressed by many with the lack of meaning, order and sense of community in existing urban patterns. In fact, to put it bluntly, it has become the conventional wisdom to look at America's landscape and cry "Alas it could have been different. If only we had rational planning techniques."³

By way of illustrating this discontent, Riesman and Spectorsky have referred to the suburbs of the modern city as a sociological strait jacket, demanding a deadening conformity in thought and appearance.⁴ Edward T. Hall, in his analysis of human space requirements, has suggested that the implosion of the world population into cities everywhere is creating a series of destructive behavioural sinks more lethal than the hydrogen bomb.⁵ Ian McHarg has described the city as an "ecological regression"⁶ while Peter Blake,

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² This expression has been borrowed from E.P. Eichler & M. Kaplan, _The Community Builders_ (Berkeley: University of California Press, 1967), pp. 1-10. This discontent which has taken the form of a critique of existing urban communities ranges from the academy to the mass media to government.


writing in what he, himself, termed a state of fury, castigated that "we are about to turn our beautiful inheritance into the biggest slum on the face of the earth." Finally, lest one has the mistaken impression that the above conditions will improve of their own accord, it is advisable to recall a recent statement by President Johnson when he pointed out that in the next thirty-five years it will be necessary to literally build in the United States as many homes, schools and factories as have been built since the Pilgrims landed at Plymouth Rock.

The urban development critique, however, has not merely served as a voice of dissent. It has also attempted to constructively clarify effective concepts and criteria for future urbanization. Sociologists and urban renewal experts, for example, are advocating greater citizen participation in slum clearance and rehabilitation. Transportation specialists are investigating the aesthetic impact of various modes of movement. Social scientists are proffering regional government as a possible solution to metropolitan administrative problems.

One alternative concept that has been advanced in response to urban congestion and the so-called evils of suburban sprawl has been the attempt to achieve some semblance of an orderly growth pattern through the development of "new towns" and "new communities". It would be folly, however, to suggest that such communities are the answer to the entire multitude of issues which beset our cities. Rather, in the comprehensive attack on urban problems, they are merely one step or approach to be considered — an approach, however, which is receiving increasing political discussion in both Canada and the United States.

In 1967, the Fourth Annual Review of the Economic Council of Canada raised the question as to whether attempts should be made to limit the expansion of the largest centres by deliberate policies of decentralization to smaller cities and towns or by the creation of entirely new urban communities. Subsequent to this report, the Prime Minister issued a statement at the Federal-Provincial Conference on Housing and Urban Development, suggesting the creation of new suburban communities. At that time, the term "new suburban communities" was not specifically defined. Meanwhile, in the United States, the Platform of the Democratic Party for 1968 states, in a section entitled "Opportunity for All", that "...we pledge to: encourage the development of new towns and new growth centers" ....... In addition, the 1968 Republican Party Platform speaks of the need for new communities in a section entitled "Crisis of the Cities". It says: "For tomorrow, new cities must be developed, and smaller cities with room to grow, expanded to house and serve another 100 million Americans by the turn of the century."

The political cogitation of new communities, of course, does not diminish the importance of many basic questions which must be posed and, hopefully, resolved. For example, how should new communities be internally designed? What is the appropriate governmental structure? What is the best method of financing such developments? An additional basic question which is in need of research concerns the site selection process. Where should new towns or new communities be located? What criteria should be applied in the identification of feasible sites? It is this specific area of interest in regard to new communities which this study proposes to examine.

Importance of the Problem. The almost universal applause granted new communities by the planner is an outgrowth of the historical evolution of the profession and its subscription to the general plan approach. This support, in turn, has been offset by political pressure from the small home builders who feel that such large developments will gradually "ease" them out of the picture, and from the central city mayors who view new communities as potential rivals for federal financial assistance. In addition, there has been a good deal of skepticism on the part of many academics who question the value of such an approach in solving complex urban problems such as racial integration and the declining tax bases of the central cities. The fact remains, however, that the typical argument or heated discussion has been based on very few facts since there has been little follow-up research attempted on existing new towns. It is only recently, for example, that Britain has commenced detailed analyses of the social provisions in new towns.

This absence of supporting research data is possibly due to two factors. In the first instance, there has been a very limited new town experience on which to draw concrete information. This problem has been aggravated by the time consideration. Most new towns have been constructed fairly recently and one is, therefore, faced with the question of how long a new town should be in existence before a meaningful assessment can be made. A lesson on this point can perhaps be drawn from the British context where extensive criticism of the new towns in terms of their objective, design and general location has really

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11 M. Kaplan, op. cit., p. 102. Until recently, the planner has been almost solely pre-conditioned by the belief in physical determinism.

12 The purpose of the new town more or less limits the choice available for consideration in any one instance. For example, it is highly unlikely that resource-base new towns in the northland could be considered in an examination of metropolitan growth and satellite new towns.
only been launched with the appearance of evaluative studies in the last five years, approximately twenty years from the time that the first new towns were initiated. Secondly, the size and comprehensiveness of new town development is bound to result in a data collection problem. In the final analysis, dealing with the problems of new communities or new towns is, in fact, dealing with the whole concept of urbanism, except perhaps at a reduced scale.

The general lack of detailed and quantitative information on the subject justifies the importance of looking at almost any aspect of new towns. Site selection or location, however, is the initial and one of the more critical decisions to be made. This is particularly evident when one considers that, in most cases, an entirely new urban entity, with its own form and function, its own economic ties and its own people and inter-relationships is being created. Obviously, therefore, its impact can be significant. To illustrate, its location may affect or influence regional development strategies. Its location may affect the existing government structure. The character and location of the site may ultimately determine whether the new town can be successfully developed. Poor subsoil conditions, for example, might result in an economically infeasible project.

Purpose of the Study. It has been stated earlier that there is a need for considerably more knowledge about the various components of new towns. It is the purpose of this study to examine merely one aspect of such towns, namely their locational criteria. This one aspect in itself, however, is an undertaking of major proportions and of such a scope that it could be separated into many areas of research. For example, one could analyze in some detail
the role of industrial location or the possible impact of recent trends in transportation in the selection of a site for a new town. There is also the question of increasing leisure time and recreation demand, and its conceivable effects on new town placement. These factors, in turn, could be directly influenced by policy alternatives. It is possible that there could be a national policy of urban development in which the senior levels of government would be responsible for the final selection of the new town sites, or there could be a policy of non-intervention which would imply that the government would not interfere in the site selection process by private enterprise. Due to the complexity of the topic, therefore, this study proposes to focus on one specific area of investigation—the location of privately developed new towns. It attempts to identify and discuss the most important criteria employed by private investment in the location of new communities. Hopefully, this will contribute to a better understanding of the forces operating in large-scale private development—an understanding which, presumably, would be of assistance to planners in their attempts to accommodate metropolitan urban growth on an improved basis.

Importance of the Study. Planners, in general, have often been criticized by politicians, administrators, private investors and such for their seemingly "pie in the sky" approaches to urban problems. In many cases, they have appeared to be out of touch with economic and political realities. Urban renewal projects, for example, have often involved wholesale clearance of slum

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14 This does not imply that zoning restrictions and other land regulations would not be in effect.
property, only to see the land lie vacant because private investment did not consider it feasible to develop it. If one were to accept the assumptions, therefore, that it is highly unlikely that the present economic milieu in North American "Western" society will undergo any substantial revision in the near future, then it is reasonable to suggest that those plans which have attempted to consider and to accommodate private investment criteria stand the best chance of advancing well into the implementative stage in the planning process. Furthermore, it follows that when planning agencies designate new town sites in metropolitan regional plans, such sites should reflect a potential for attracting private investment. That is not to say, of course, that this should be the sole criterion. Rather, there should be many site selection criteria, both public and private, with the final location representing the most acceptable balancing of all factors involved.

Scope of the Study. The scope of the study has more or less been implied in previous sections. To reiterate, however, this study is concerned with the location of private enterprise new communities. It does not include those privately developed communities listed under the heading of company towns. Rather, it is concerned with new communities in metropolitan regions; in other words, those communities which are intended to accommodate pressing metropolitan population increases and to structure in a more efficient manner the actual growth of the urban area. To quote Chester Rapkin, new towns in the American context should not be considered as a technique for limiting the growth of central cities, but as a means of organizing the already expanding metropolitan

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15 This refers to such factors as the lofty position which free enterprise has traditionally enjoyed, the pre-occupation with making money and the political influence of the money-makers, and the ideals of home ownership and fee simple which are imposing deterrents to state interference in property ownership.
region to render the centre more readily accessible, and to enlarge employment and housing opportunities. Finally, the primary emphasis in this study will be on existing or recently proposed new towns in Canada and the United States, although some reference will be made to European new town experience in Chapter III which deals with the identification of a range of possible locational criteria for new towns.

Hypothesis of the Study. In order to provide some semblance of direction for this study the following hypothesis is contended:
The rate and direction of urban growth, freeway accessibility, land assembly, land costs, and government restrictions are the most important criteria influencing the location of privately developed new communities.

Methodology of the Study. This study has relied primarily on an extensive literature review and on a questionnaire survey of new town developers for its principal sources of data. The former information has been collected from a wide variety of sources since there are no studies that one can point to as dealing specifically with the locational aspects of new towns. Such data have been augmented by correspondence with organizations such as government agencies, metropolitan planning boards and new town developers (see bibliography). In most cases, these organizations provided additional material which was not readily available from the library.

Definition of Terms. The preceding pages have used the terms, new town and new community interchangeably. Throughout the remainder of this study it is proposed to continue this practice, but with the qualification that the following working definition of new community, unless otherwise stipulated, is automatically implied. The one exception would be any reference to the British experience and in that case, the term, new town, as defined below, would be in effect. This distinction has been made in order to satisfy those persons who would contend that the new communities presently being developed in North America are not comparable to previous new towns originally conceived in the British sense.

(i) **New Town** - A new town is an independent, relatively self-contained, planned community of a size large enough to support a range of housing types and to provide economic opportunity within its borders for the employment of its residents. It is large enough to support a balanced range of public facilities and social and cultural opportunities. It is surrounded by a green belt of open space which serves to relate it directly to the surrounding countryside and to limit its size within a predetermined range regarding both population and area.\(^{17}\)

(ii) **New Community** - A new community is a large-scale development constructed under single or unified management, following a fairly precise, inclusive plan and including different types of housing, commercial and cultural facilities, and amenities sufficient to serve the residents of the community.\(^{18}\) Some land will be provided for industry although the community may also be accessible to industry in other locations as well. Other types of employment opportunities will also be offered and the community may eventually achieve a considerable


\(^{18}\) Ibid., p. 64.
measure of self-sufficiency. Most new communities under development today are within commuting distance of existing employment centres.

In addition, for the purposes of this study, a new community must be at least 2500 acres in size. This somewhat arbitrary figure will ensure a population threshold large enough to support the variety of activities and facilities required in a new town.\(^\text{19}\) It has also been included in the working definition of a new community in the text of the Howard County, Maryland, General Plan and has been used by Edward P. Eichler in his book, *The Community Builders*.\(^\text{19}\)

Organization. The remainder of the study has been divided roughly on the basis of chapters. Chapter II examines the role of private investment in large-scale community and land development. An attempt is made to establish the increasing significance of such development in planning for metropolitan regions. Trends such as the expanding size of project due to economies of scale, greater comprehensiveness of development in response to market demand and the advent of corporate investment in community building give support to the supposition that large-scale development will provide a notable input to the permanent future urban pattern of metropolitan regions. All the more reason, therefore, why planners must strive for an understanding of the underlying development and decision-making criteria involved in such projects, including their possible future locations. The second step, or Chapter III, sets out and discusses a list of possible locational criteria that might be

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employed in locating a new town. In so doing it draws on examples of previous new town developments in both North America and abroad. The next major step, or Chapter IV, is concerned with the identification and discussion of the criteria employed by private enterprise in the location of new communities. Once such criteria are noted, it is expected that in Chapter V it will then be possible to assess the degree to which the planner can control or manipulate such criteria to allow for a more rational growth of the metropolitan region.
In the past, city growth has generally been characterized by a myriad of small land transactions. Such bits and pieces of twenty or forty or sixty acres, although seemingly insignificant in the total urban context, have been a major headache for the planner in the battle against the so-called inefficiency and sterility of urban sprawl. The task of integrating and servicing these small and often scattered housing tracts or subdivisions has been a formidable one. Also, the relatively small scale of such projects has made it difficult for the planner to utilize them as instruments to provide focal points for well-rounded development, thereby giving some form or identification to suburbia.

The recent emergence of comprehensively planned, privately developed new communities, however, would suggest that the planner may well have a new tool or a new ally with which to grapple with the problems of urban sprawl. Such developments are relying on better planning as their chief sales weapon and are therefore an improvement over the hastily constructed subdivisions of a decade ago. They are also larger and, as James Rouse has indicated, the essential beginning point for an orderly growth to cities is planning and development over large land areas.1

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It is the purpose of this chapter, therefore, to examine the changes occurring in the land development business and to illustrate that the trend to large-scale planned development is not temporary. Rather, there is every indication that, to use one author's words, a revolution is taking place in the industry and that the new community is simply an outgrowth of this trend. If such developments are not a passing fad, it follows that their size and number will have a significant impact on the metropolitan region. It is precisely because of the likely permanency and impact of this trend that the subsequent examination of the locational aspects of such developments is justified.

I. CHARACTER OF THE HOUSING INDUSTRY

Traditionally, the housebuilding industry has lacked unity and integration. Its technology has been restricted to small and local operations. The sound management necessary to promote innovation has generally been absent.

This situation can be attributed to a number of factors. In the first instance, the relative ease of entry into the building business assures a high degree of competition. The initial capital required is not large, equipment can be easily rented and it is possible to minimize staff through subcontracting. As a result, a continual influx of new firms makes it difficult for any one builder to maintain a large volume of output on an extended basis. In addition, the builder must contend with the nature of the housing market. Unlike many other industrial goods, characteristics such as the fixity of the site, the great weight of the finished product and the local character of the housing demand preclude the movement of large numbers of completed houses to

different places. In regard to housing demand, for example, the differentiation of consumer preferences has enhanced the position of the small builder by limiting the degree of standardization which can be introduced. To a large extent, the public has tended to the belief that mass produced homes are of low quality.

The housing market is also plagued by strong fluctuations in the demand for new homes. Such yearly variation in house production, as exemplified in Table I, is often a significant deterrent to firms considering expansions. Large scale operations frequently denote higher fixed costs and builders, therefore, may prefer to keep their operations on a small scale.

TABLE I

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<th>Annual Percentage Increases and Decreases in Number of New Housing Units Started in California 1948-1961</th>
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Those builders who do not wish to increase their scale of operations by penetrating additional markets are further hampered by a multiplicity of
local regulations. The diversity of public controls such as zoning ordinances, building codes and subdivision requirements serves to stultify attempts by large builders to transfer the use of materials, methods of operation and pattern of land development from one place to another.

Such restrictions are complicated even more by the building craft unions which have set up standards for craft performance on a highly localized bases. Such standards will vary by area and by trade and, since the labour force is highly mobile and unattached to any single employing agency, the unions, through such restrictions, have the power to block or delay construction progress at the site. For example, there may be working rules in respect to output per man as in bricklaying or commercial restrictions against certain types of materials not locally prepared for installation. These regulations are barriers against innovation and impede the development of large-scale enterprise, in which advanced methods and particularly the use of machinery are most likely to be adopted. 3

A further factor which has tended to keep the building industry small in scale has been the system of land utilization. Colean, for example, has suggested that land speculation and the uncontrolled use of land has resulted in subdivision activity separate and distinct from building activity. 4 The resultant scattered ownerships have made it difficult to assemble land for any large development so that relatively small builders have been typical. This might not have been the case, however, if there had been a greater effort on the part of both the builders and the land developers to integrate their activities.

3 Leo Grebler, Production of New Housing, (New York: Social Science Research Council, 1950), pp. 96 and 97.
Where such integration has occurred, a more orderly and consistent pattern of land development has generally resulted. In many cases, non-residential facilities have been planned in relation to housing. On the whole, however, the absence of large fixed capital investments in housing production has limited the degree of integration. Since it is not necessary for a builder to acquire additional firms to capture a larger share of the market, horizontal combination through merger or consolidation of builders has been almost absent. Vertical combination has been limited by the discontinuity of housing production and the disproportions between materials required by the majority of builders and economic levels of output of building materials plants or distributors' sales.

In addition to its small and local character, the housebuilding industry has also been criticized for its lack of sound management. There has generally been a failure, for example, to develop adequate record-keeping and methods of production control. This shortcoming can be partly attributed to the dispersed nature of the industry. As Colean points out, the control of production processes is spread among seven functional divisions, namely, the builder, the special trade contractor, labour, the architect and the engineer, the land subdivider, the materials producer and distributor, and the underwriter and government. Each seems to operate in its own interest alone. Each retains a quasi-independent position in the industry, thereby preventing strong overall management.

A further consideration is the difficulty that most builders experience in attracting or retaining talented personnel in the middle levels of management.

5 Leo Grebler, op. cit., p. 71.
6 Ibid., p. 71.
7 For a more detailed discussion of these seven elements, see Miles Colean, op. cit., pp. 314-315.
Herzog cites the lack of promotional opportunities as primarily responsible. Housebuilding firms tend to be highly centralized, with the high level positions occupied by the owners themselves. Thus, there is little incentive offered by a middle management post.

Finally, due to reasons already discussed, most builders are especially conscious of additional risks. Their reluctance to increase their overhead has undoubtedly affected any progress toward better management.

II. THE CHANGING NATURE OF THE POSTWAR HOUSEBUILDING INDUSTRY

In spite of the previous depiction of the industry, there are indications that, since the Second World War, some changes have taken place in the structure of homebuilding firms. Prior to 1945, for example, the various processes of land purchase, site improvements, house construction and merchandising were carried out by separate firms. The termination of the War, however, released an acute housing demand which was stimulated even more by government insured loans. This did away with most of the prewar marketing and financing problems. At the same time, growing urbanization and the rising income of the population served not only to concentrate but also to increase the demand, and a swelling automobile ownership provided the necessary means of access to large tracts of cheap land on the outskirts of the cities. As a result of these factors, a strong demand for homes at any one location was created. This allowed development on a sufficiently large scale that the above mentioned previously separate

9 See, for example, Sherman J. Maisel, "Background Information on Costs of Land for Single Family Housing", *Appendix to the Report on Housing in California*, pp. 246-260.
functions could be combined within a single building firm. Eichler and Kaplan, in fact, have implied that it was only with the appearance of this type of merchant building firm that the production of housing truly reached the level of an industry.

This trend towards larger housebuilding firms was observed by Maisel in his 1950 study of the San Francisco Bay area. He noted that the large-scale builder, although representing only 2% of the total number of housebuilding firms, was responsible for 35% of total home construction. He also observed that the costs of the large builder were 8% less than those for the small firm and 5% less than those for the medium builder. In assessing the strength of such forces in the future, Maisel envisaged that:

"... a more rapid polarization of the industry into large merchant firms at one extreme, and small contractors at the other extreme may be expected. The industry is still highly heterogeneous in sizes and types of builders, all in sundry stages of development. More vigorous competition should speed concentration at the two poles. If the housebuilder's evolution follows a survival-of-the-fittest pattern, many medium sized firms, unable to stand the test of a stabilized or decreased demand, may become extinct."

By the end of the decade, Herzog's study of housing construction in Northern California had been completed, and tended to support Maisel's earlier forecast. In a span of ten years, the large-scale firms had increased their share of new house production to 74% of the total market. In addition, the

11 Sherman J. Maisel, Housebuilding in Transition, (Berkeley: University of California Press, 1953), pp. 220 and 345. Maisel defined a large-scale builder as one whose annual production exceeds 100 homes. A small builder produces 1 to 24 homes annually and the medium-sized builder falls between the first two.
12 Ibid. p. 292.
13 Although the two studies were undertaken in California, both Maisel and Herzog have indicated that the structural shift in output to the large builder was typical of the national trend.
14 More recently, a survey in 1963, consisting of a sample of 927 builders, indicated that the proportion of housing production attributable to the 100 plus builder had risen to 78%. See G. Breckenfeld, op. cit. p. 115.
polarization effect envisaged by Maisel is evidenced in the fact that, in 1960, each large-scale builder produced, on the average, 297 houses. This was an increase of only 24 houses per builder over 1950. Most of the increase in large-scale output, therefore, resulted from an influx of new firms, rather than through the continued growth of just a few giant firms.\textsuperscript{15}

Herzog’s findings also upheld Maisel’s thesis that the growth of the large-scale sector should accelerate in periods of stiff competition. In the 1950’s, the large-scale builders increased their share of production during the years in which housebuilding in general was declining. Also, with the exception of 1954, this proportion fell off whenever total housing starts increased. It should be pointed out, however, that even though the large builder’s market share fluctuated from time to time, the decline was never great enough to offset the steady increase in this share registered during periods of reduced demand. Thus, with the diminished significance of the seller’s market after 1955, due to increases in housing stock, the small-scale builders were not able to regain their position in the market.

In analyzing this structural shift towards the large building firm, there are a number of attributable factors to consider. In the first instance, the fact that the brunt of cyclical declines has been borne by the small builders is a reflection of the advantages to be gained by the large builder through volume production. A large firm’s bargaining position in regard to materials suppliers, sub-contractors, and in some cases lending institutions is strengthened by the sheer volume of its purchases. This volume, in turn, allows the groups which the firm is dealing with to pass along some of the savings to the builder in the form of lower prices or better service. By greater specialization, the

\textsuperscript{15} John P. Herzog, \textit{op. cit.}, p. 25.
large builder is also able to use his labour and materials more efficiently and
to reduce waste by moving left-over materials to the next job. Finally, there
is the added effort a large-scale firm is able to put into marketing, design,
financing and research because expenditures for such activities can be spread
over a large number of units.16

A second factor which Herzog has emphasized is the advantage to be
gained from the large builder's longer planning horizon.17 Whereas the small-
scale builder has practically no commitments beyond the few houses he may
currently have under construction, the merchant builder is dealing with large
tracts of land, with commitments for financing, development, staff and subcon-
tracts frequently extending several months into the future. Such contractual
commitments permit the large builder to escape some of the short-run uncertain-
ties of business.

In addition to the advantages resulting from volume production, two
other trends have tended to encourage large-scale development. First,
increasingly intricate and expensive development regulation leads developers to
attempt to achieve economies of scale by packaging the largest amount of develop-
ment possible at one time, to minimize the time and expense of negotiation and
multiple filings.18 Second, the reputation of the major builders is often
singly sufficient to attract the smaller builders to adjacent areas. Such small
builders will intercept a portion of the larger firm's potential market unless
the acreage surrounding the development is purchased or controlled by the large
builder first on the scene.

16 Ibid., p. 22.
17 Loc. cit., p. 25.
At this point, however, it is necessary to emphasize that even though the housebuilding industry underwent considerable change during the 1950's, the operational characteristics outlined previously were still very much in evidence. It is true that the large-scale builder emerged as a dominant force during this period but there was, by no means, a wholesale shift toward concentration within the large-scale sector. This can be partly attributed to a lack of economies of very large scale and to the relatively high degree of mobility among large-scale builders. Since, as Maisel has pointed out, on-site production costs do not continue to fall once a production rate of two or three houses a day is exceeded, the optimal scale for builders must lie between 500 and 800 houses per year. This size of builder is certainly not large enough to keep potential entrants out of the market.

At the same time, such competitive forces are further enhanced by builder mobility. In spite of product immobility and the diversity of public regulations, Herzog has indicated that large-scale builders are quick to seize upon opportunities to produce for any new market. Many firms, for example, are operational in five or six markets at once. As a result, this ability to move from one market to another has promoted competition among larger builders and prevented older firms from monopolizing local markets.

In addition to the factors which tended to limit greater concentration within the large-scale sector, there was little evidence that any substantial changes were occurring in other aspects of the industry. For example, individual consumer preferences, handling costs, and architectural monotony continued to suppress the adoption of pre-fabrication. New management techniques still

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19 Sherman J. Maisel, Housebuilding in Transition, p. 221.
20 John P. Herzog, op. cit., pp. 28-32.
lagged with the reluctance of owners to broaden their base of ownership, thereby forcing building firms to rely almost exclusively on retained earnings and construction loans for working capital. Almost no progress at all was made in the marketing function or in land development organization. This occurred in spite of the inherent possibilities that any investment in a broader scale of land development could yield greater returns, in terms of an integration of advertising and promotion programmes, and increased savings from the purchase of large land areas in advance of speculation.

III. THE EMERGENCE OF NEW COMMUNITIES AFTER 1960

By the 1960's, however, there was every indication that the evolutionary changes of the previous decade had been superseded by, what has been termed, a revolution in housebuilding and land development. Toward the latter part of the 1950's, with the disappearance of the seller's market, it had become increasingly evident that builders were attempting to improve the marketability of their houses. Not only were neighbourhood shopping centres incorporated into developments to broaden the range of facilities offered the potential homeowner, but there was also an effort to enhance the attractiveness of subdivisions through better design and improved landscaping.

Nevertheless, it was not until the sixties that this movement reached full flower. The conventional pattern of land development, according to William H. Whyte, had been pushed close to the breaking point. Land costs had continued to soar and were comprising a sharply increasing portion of final housing costs. There was danger that developers would price themselves out of

21 Undercapitalization will usually result in a sub-standard product.  
the mass market unless new forms of land development were initiated. In addition, there was increasing evidence that the promotion of structural features on the individual house alone was not sufficient, in itself, to gain an edge on the market, and that the total residential environment in each development had to be considered in greater detail. The recognition of this trend could be summed up in a statement by a large Los Angeles builder when he emphasized that:

"More and more the builder-developer will have to realize that building homes alone is not enough. He must recognize the social and economical requirements of those who are eventually to occupy the homes."²³

Meanwhile, Collier, for example, has stressed the importance of qualitative aspects such as open space and amenity in the packaging of such development. He suggests that a significant revolution took place in the housing industry during this period when the large-scale builder and developer became aware of the fact that one useful way to differentiate the product from those of competitors was to concentrate specifically on the issue of open space and amenity.²⁴

This emphasis on qualitative features is also the product of two important trends which intensified during the sixties, namely, increased intra-regional accessibility resulting from transportation developments, and the decentralization of office and industrial locations. The introduction of circumferential highways created a relatively more equal desirability of land between the routes. When combined with the decentralization of employment locations, the emphasis in the promotion of residential development came to be

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²³ G. Breckenfeld, *op. cit.*, p. 68.
placed more on qualitative features than on distance per se, since no one distance measure was meaningful to all residents, as had been the case with a dominant employment centre.\textsuperscript{25} A further factor to consider is the effect of these two trends on the comprehensiveness of large-scale development. The previous decade had witnessed larger developments of the residential type, with some neighbourhood shopping facilities included. The sixties, however, were characterized by the addition of industrial parks and regional shopping centres, not as a specialized function, but under the control of one large developer and related to concomitant housing projects.\textsuperscript{26}

In addition, a second revolution was also taking place. One author has referred to it as a managerial revolution in housing in which the common denominator is new combines to do the old things in new and bigger ways.\textsuperscript{27} In an industry traditionally plagued by the chronic problem of undercapitalization, the entry of a large number of corporations into the homebuilding field, chiefly as land developers or investors, has provided the corporate structure and financing necessary for large-scale, comprehensively planned development. It has also allowed for new management techniques to be introduced into the industry because this corporate activity, for the most part, is undertaken on a long-range basis, and at a relatively sophisticated level. It demands talented personnel at the middle management positions, since the complexity of the operation precludes a high degree of centralization of decision-making. It also provides the necessary incentive to attract such personnel due to the advancement opportunities available.

\textsuperscript{25} David L. Peterson, \textit{Loc. cit.}, p. 5.
\textsuperscript{26} That is not to say that such developments did not take place during the 1950's also. Don Mills, outside Toronto, for example, was built during that decade. It is in the 1960's, however, that such projects greatly expanded in number.
\textsuperscript{27} G. Breckenfeld, \textit{loc. cit.}, p. 67.
It is evident from the preceding discussion, therefore, that certain conditions prevailed after 1960 that could have produced an interest in the building of new communities. Although not a complete list by any means, factors such as the rising cost of land, industrial decentralization, a buyer's market and the advent of corporate investment have been important influences. At the same time, it was noted at the end of the last section that, although a great deal of concentration had occurred within the large-scale sector during the 1950's, the housebuilding industry still suffered from a lack of capitalization and innovation, poor management and marketing, and an absence of integration over the entire land development spectrum. As a result, this striving on the part of the homebuilding industry to improve its efficiency and its image continued into the 1960's and, when combined with the previously mentioned conditions of the period, was largely responsible for the emergence of new communities. It is the purpose of the following subsections to discuss in greater detail the variables accounting for the appearance of new communities at this time, bearing in mind, of course, as Soper has suggested, that the subdivision has been moving toward new town proportions for two decades.  

Corporate Investment in Housebuilding and Land Development. The increased activity in the recent planning and development of new communities would not have been possible, at least in the same numbers, without the entry of the large corporate investor into the field. The cost of buying the land, the additional infrastructure expenditures such as roads and underground services, and the necessity of providing industrial sites, community centres, recreation facilities

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and an internal transportation system, in advance of actual use by the resident population, requires an enormous initial investment by the developer. This more or less eliminates the traditional builder with his limited financial resources, particularly when a number of years must pass before any income is derived from the project. In the new town of Columbia, for example, investment in land assembly and site development totalled over $48 million. Yet, it was five years after the land purchase before the first houses were available for sale.29

Original corporate involvement in housebuilding dates back to the thirties when large corporations attempted to stimulate product demand by helping to revive a housing industry which had become almost non-existent during the depression.30 Their contribution, however, was limited primarily to allowing their firms' excess capacity to be used to produce the few homes that were marketed. Such interest soon waned with the advent of the Second World War and the postwar "baby boom", both of which created an enormous demand for corporate products.

The recent corporate participation of the sixties, in contrast, is generally typified by a much greater commitment on the part of the corporations involved. The investment emphasis has shifted from the housing field per se


30 David L. Peterson, op. cit., pp. 12-14. This activity during the 1930's was also accompanied by public investment in housing which resulted in the greenbelt new towns.
to the broader aspects of land development. There is also evidence of a more enlightened business attitude towards large-scale development, particularly new communities. A number of corporations, for instance, are now viewing new towns as both a stimulus and proving ground for a new urban technology, the results of which could create more efficient and socially stable places in which to live. According to George Bogard, for example, the contributions which some firms could make in the field of land development could include the following: (1) the necessary financial staying power to undertake a 15-20 year development program; (2) a wide diversity of technologies and engineering capabilities which could be brought to bear on design and construction problems; (3) the experience and facilities for broad-scale research and planning, and long practice with systems analysis; (4) product and manufacturing scope which covers almost the complete spectrum of community services, including power distribution, water management, sewage disposal, transportation systems and traffic control, communications and household service functions; (5) experienced management trained to cope with large and complex projects; (6) acknowledged responsibility, integrity and public confidence.

Further evidence of a possible shift in the business attitude toward long-term corporate investment in land development is the fact that many large corporations have not been content with merely participating in building and financing builders. Rather, they have also begun to actually purchase existing homebuilding firms. Sunset International Petroleum Company, for example, decided

to enter the real estate business on a large scale in the early sixties and subsequently purchased the Tavares Development Company, a large San Diego based homebuilder. This purchase, together with subsequent operations, was so successful that by 1963, the company had converted itself from a medium-sized oil and gas producer into a giant community developer with 75% of its revenue from real estate.

This increased corporate interest in large-scale land development can be attributed to a number of factors. Certainly, the size of the total package helps to alleviate the risk factor. The large amount of land involved offers a reasonably secure opportunity for land speculation due to the likely future value of commercial and industrial sites as the town matures. Also, as Maisel points out, the attractiveness of the investment is further enhanced by the fact that any owner of land holds a basic equity. Generally speaking, since rent is a basic income payment, rent levels tend to adjust to the price level and this entices those investors who fear inflation and wish to diversify their capital holdings. At the same time, investors who had previously avoided real estate because of its relative illiquidity have discovered that new towns overcome this shortcoming because a small portion of the total acreage can always be sold without much damage to the entire project.

To be more specific, however, the entry of the corporate investor into large-scale land development must be understood in the context of the diverse backgrounds of the particular firms and individuals involved. First, there are

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33 G. Breckenfeld, op. cit., p. 69.
several large builders that have turned to the stock market for equity money and then expanded into land development. It is possible that this represents an extension of the trend towards concentration in homebuilding which was earlier observed by both Maisel and Herzog. Peterson, for example, has suggested that when a building firm reaches a certain size, it is drawn almost inevitably into the corporate form in an effort to reduce financial exposure, limit the liability of the individuals involved and cut down on the income taxes which the owners pay on their shares of the profits. Earnings of the new corporation retained as cash on hand and not distributed as dividends are often subject to a penalty rate of tax as high as 80%. As a result, once the shareholders are advised to invest their excess monies elsewhere, the building firm very often expands into land acquisition because it is usually seen as offering the most obvious opportunity to augment the effective operation of the main business.

In addition to the large building firm which has expanded into land development, the large-scale community developer can be conveniently classified under the following headings: (1) large landowners, (2) national corporations with ready cash, (3) a separate corporate group made up of the oil industry, and (4) mortgage lenders seeking equity investments. These categories obviously overlap and the actual management initiative may vary in a given development as time goes on and as different investors participate in management decisions.

35 In 1963, the stocks of 44 building and land development companies were widely enough traded to merit inclusion in House and Home's monthly listing of publicly-held housing companies. See G. Breckenfeld, loc. cit., p. 67.
36 David L. Peterson, op. cit., p. 20.
37 Advisory Commission on Intergovernmental Relations, op. cit., p. 79.
The first group, namely, the large corporate landowners, are playing an increasingly important role in the development of new communities because of the difficulty of assembling and financing large tracts of land. Within this group there are three types. The "land developer-by-accident" is usually a corporation in an unrelated business which is interested in developing one or a few large holdings which it owns, but does not intend to extend its involvement beyond these holdings. This type of corporate participation is exemplified in the construction of the planned community of Litchfield Park, Arizona, by The Goodyear Tire and Rubber Company. According to John D. Doherty, public relations consultant for Goodyear:

"The Goodyear Tire and Rubber Company has owned the site of Litchfield Park since 1916. Since Phoenix is one of the fastest growing metropolitan areas in the United States, it became evident that in time the land surrounding Litchfield Park would change from agricultural to industrial and residential land uses ..... Goodyear therefore decided that building a new town would bring the greatest benefit to the company and to the community. So you see, Goodyear did not decide to build a new town and then go looking for the site. Instead, the situation was reversed."\(^{38}\)

A second type of corporate landowner is represented in the long-term "land company"\(^{39}\) which has slowly evolved into a land development company.

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\(^{38}\) Personal Correspondence with J.D. Doherty Jr., Vice-President, Doherty Associates, Inc., Public Relations Consultants for Developers of Litchfield Park, 551 Fifty Avenue, New York. Litchfield Park is located 18 miles west of Phoenix and is expected to provide complete living facilities for 75,000 to 100,000 people.

\(^{39}\) A "land company" implies a traditional agricultural earnings base. The rate at which such land has been brought into development has undoubtedly been influenced by rising property taxes. In 1966, for example, The Irvine Company paid out $3.7 million in taxes on its agricultural land. The Company subsequently sought relief by filing for an agricultural preserve of 12,000 acres in which the Company agreed not to develop the land for 10 years and the county agreed to a maximum assessed value based on agricultural use and not the highest use to which the land might be put. For reference, see "New Town Rises Back at the Ranch", Business Week, Sept. 23, 1967, pp. 176-182.
as its property ripened over the years. The Irvine Company which is presently developing the Irvine Ranch south of Los Angeles falls within this category. It is now faced with housing development possibilities after years of ranching, citrus and extractive operations.

Finally, there are those corporate landowners that have turned to housing and community development in an attempt to derive multiple use from lands which have quite properly served their original purposes. Redwood Shores in Redwood City, California, for example, is being developed by the Leslie Salt Company on land formerly used for the extraction of salt. In cases such as this, the capital gains tax encourages the corporation to hold onto its land and to adopt the carefully controlled sell-off procedures which are possible in the development of a new community.

National corporations represent a second large group of investors willing to place their money in land development. These investors have an over-abundance of ready cash but a restricted choice of areas in which to invest this money. In some industries, money is poured into real estate

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40 David L. Peterson, op. cit., p. 31. The remainder of this subsection relies heavily on the material contained in Peterson, pp. 30-41.
41 Redwood Shores does not meet the earlier definition of a new community.
42 The capital gains tax permits owners with large financial resources to hold land indefinitely without payment of income tax on the land until it is liquidated by sale. The tax is then fixed at a maximum rate of 25%, rather than at the ordinary income rates. In addition, if the owner can demonstrate a loss on another transaction, he can use that loss as an offset against the gain. If the land is used in the course of the regular business of the owner, provided that his business is not real estate, land transactions can be included in the business balance sheet. This permits the owner to charge a loss on land sale against income received. This encourages the holding of large parcels of land against possible future capital gains. See Arthur D. Little, Inc. (John W. Dyckman), "The Control of Land Development and Urbanization in California", Appendix to Report on Housing in California, April, 1963, pp. 332-334.
investment because expansion in the primary line of business is blocked. The aluminum industry, for example, is characterized by over-capacity and a limited number of major processors. Profits cannot be plowed back into new capacity and anti-trust considerations inhibit mergers. As a result, vertical integration, particularly where land development is involved, has strong appeal because it helps to promote the expansion of the market for aluminum products. Other industries, on the other hand, are attracted into the land market by tax considerations such as depletion and depreciation allowances, property tax and interest deductions, and capital gain treatment.

The oil industry represents a third separate and distinct corporate group involved in land development. It has excess funds to invest due to a favourable profit position and special tax treatment arising from depletion allowances. American regulations have determined that production can only take place on a certain number of days during the month. The revenue that a company can collect from its oil operations is therefore limited. But oil reserves continue to build up and provide the assets against which borrowing can take place. This advantage is augmented by the fact that "intangible drilling costs", representing 60% of the cost of drilling, and including such

In 1963, sales of aluminum to construction accounted for 25.1% of the United States' aluminum output. A further advantage to such vertical integration lies in the fact that an aluminum company such as Alcoa can consolidate its realty operations into the parent company's income tax return and get a substantial boost to cash flow because real estate depreciation is an allowable deduction against the 48% corporate tax. See G. Breckenfeld, op. cit., pp. 70-71. This same article also documents product sales stimulation as an influencing factor in corporate investment in land development. At the end of the fifties, for example, there was not one major manufacturer of building products directly involved in homebuilding and land development. Four years later, there were at least nine companies heavily involved. Reasons for this include the fact that materials manufacturers can borrow money at lower rates than most builders can, and construction projects provide field testing for manufacturer's products under their own control.
items as labour and services with no salvage value, are deductible in full against income for five years from the time they are incurred. In addition, a separate depletion allowance permits deduction from taxable income of an amount equivalent to 27 1/2% of gross income. It is little wonder, therefore, that oil companies are in a particularly advantageous position, at least in terms of available dollars to invest in real estate projects.

A final group of investors very much in evidence in new community development includes the banks, insurance companies, and savings and loan associations. In many cases, this group has assumed an equity investment role and a voice in management decisions by incorporating into the mortgage terms, provisions dealing with profit participation and options to purchase development interests. This role is exemplified in the terms of financing determined for the new town of Columbia. Here, the investor, Connecticut General Life Insurance Company, received the right to select three out of five members of the development corporation's board of directors, an option to participate further in the development beyond the financing stage, and an option to acquire all of the common stock and achieve full ownership in the event that stock was not redeemed after ten years. In effect, therefore,

44 David L. Peterson, op. cit., p. 37.
45 The motives behind the entry of oil companies into new community investment vary. Certainly, real estate investment is profitable, as witnessed by the earlier mention of the fact that Sunset International accumulated 75% of its revenue from real estate in 1963. In the case of Clear Lake City near Houston, an important factor was Humble Oil's ownership of 15,000 acres of land originally intended for industrial expansion. In the case of Reston, although Gulf Oil has since taken control of the development through a subsidiary, the initial agreement stipulated that Gulf Oil would have a first mortgage on all the land, an option to buy stock in Reston and a promise of a monopoly of oil sales in Reston. For reference, see "Humble Oil Lays Out a New Texas Town", Business Week, Feb. 8, 1964, p. 67.; "New Towns - Answer to Urban Sprawl?", U.S. News and World Report, Feb. 14, 1966, pp. 114-116.; "New Towns: Are They Just Oversized Subdivisions with Oversized Problems", op. cit., p. 94.
the capital from this group of investors is now being irrevocably locked into the project rather than repaid with the proceeds of initial sales, as had been the case with privately syndicated initial risk capital in earlier, smaller developments.\textsuperscript{47}

It is evident from the preceding discussion, therefore, that a number of different types of investors, due to a variety of factors, are finding it advantageous at this time to invest in large-scale community developments. Such participation, by providing the necessary capital, has promoted the increased construction of new communities. Whether or not this participation is a temporary phenomenon remains to be seen. A somewhat unstable nature to corporate involvement is possible because of the important role that federal taxation advantages and conditions internal to a specific industry have played. These factors will vary, perhaps even from year to year, and therefore influence real estate investment in the process.

Alternatively, however, there is some basis for suggesting that such involvement will continue. First, the nature of the commitment, itself, will not allow a substantial retreat from project responsibility because the return on investment is only possible in the long-run. Second, there is the question of reputation, and whether it be an immediate cessation of activity or foreclosure, it may not be advisable in the better publicized new communities. Third, Collier's study\textsuperscript{48} has indicated that the builders themselves are of the opinion that the smaller builder will be squeezed out and that the trend toward super-sized builders will continue due to (1) financial advantages, (2) modern management techniques, (3) the necessity of undertaking intensive market

\textsuperscript{47} David L. Peterson, \textit{op. cit.}, p. 39.
\textsuperscript{48} Robert W. Collier, \textit{op. cit.}, pp. 142-143.
analyses, (4) the trend to the development of large tracts of land and (5) the emergence of new forms of development such as cluster housing.

Finally, as Peterson points out, many corporations have been associated with the housing and land development field in one way or another since the 1930's, and have merely shifted the form of this involvement over time. There is no reason to suggest that this process will not continue.

Economies of Scale. The recent emergence of new communities since 1960 can also be attributed to the continuing search for economies of scale on the part of the large builders and developers. It has already been noted, for example, that greater efficiency in the postwar housebuilding industry accompanied larger scale operations and resulted in increasingly bigger residential land subdivision developments. Similarly, in new community developments, economies are in evidence, not so much in the actual assembling of the house, but in operations related to management, marketing and the acquisition and development of the site.

First of all, there are definite economies in land costs when the property is purchased in such large parcels. In the case of the new town of Reston, for instance, the original developer, Robert Simon, acquired

49 David L. Peterson, op. cit., p. 9.
50 It will be interesting to see what form this involvement takes in the future, now that the new communities clause of the 1968 U.S. Federal Housing Act has been passed. Under this clause, the Department of Housing and Urban Development can guarantee up to $250 million in loans over the next 5 years for land acquisition and development to those builders whose new town plans meet standards prescribed by HUD. Reference: "The City: Starting From Scratch", Time, March 7, 1969, p. 29. One's initial reaction is that the effect will be minimal, particularly when one considers that there have already been 17 formal applications for loans. If the cost of such developments is similar to Columbia (roughly $50 million so far), the money which has been allocated will not go very far.
approximately 7,000 acres of land from one owner for $1900 per acre. This figure is considerably below the going-rate for residential land on the outskirts of Baltimore or Washington. In addition, to the extent that the new town is intended to be relatively balanced in its facilities, the developer is able to ignore the high land costs on the immediate urban fringe and locate his development on cheaper land anywhere from 15 to 25 miles, on the average, from the closest major urban area. For example, the site for the new town of Columbia, located 15 miles from Baltimore and 23 miles from Washington, was purchased at an average cost of $1450 per acre, in spite of the fact that there were 165 separate purchases to be made.

Second, economies are also possible in the marketing of the final product through the integration of advertising and promotion programmes. Many builders, for example, are involved in the construction of the new town, but by publicizing the entire development at once through the name of the new town itself, all the builders can be featured in one advertisement. Furthermore, since the new town developer is involved in a long-term commitment, he will be particularly selective in the type of builder which he chooses to build on the individual parcels of land, in order to ensure that the long run demand from future buyers will not be adversely affected. This, in itself, is a valuable promotional tool.

Finally, by developing a new town, greater economies in management can be achieved. This is an important factor when viewed in the light of the past criticism which the housing industry has been subjected to in regard to its outdated management techniques, and its subsequent attempts to improve the situation. It has already been noted, for example, that the longer time horizon

51 E. Lalli, op. cit., p. 94.
52 E.P. Eichler and M. Kaplan, op. cit., p. 61.
involved in a new town has attracted the middle-management executives. Most of these executives do not come from the building industry because their jobs in the new town development are not related directly to production and merchandising processes of the construction industry. Rather, they co-ordinate the work of many specialists with skills in such fields as engineering, political negotiation, law and finance. In turn, this greater degree of specialization which is possible in the larger and more varied operations of a new town has cultivated the introduction of new methods of market analysis and integrated investment analysis, plus the use of computers and the multi-disciplinarian team approach to land development. In the enlightened approach to the development of Columbia, for example, the developers applied the social sciences to the actual design and operation of the new town by employing a special work group composed of participants ranging from city managers to education specialists to psychologists. An economist was also employed to provide almost daily judgements about local market conditions and the likely relation between the cost of a planning proposal and the potential market response.

**Governmental Influences.** A common complaint of developers has been that the multiplicity of local governmental regulations has tended to hamper their attempts to increase their scale of operations by penetrating additional markets.

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53 See Paul F. Wendt, "Large-Scale Community Development", The Journal of Finance, May, 1967, pp. 223-224. He describes the analytical processes which are gaining current acceptance in the field of real estate investment analysis as decision models in which the broad aim is to maximize the future rate of return on the investor's capital based on a careful estimate of the capital requirements. The advantage of this approach is that it makes explicit the assumptions entering into the calculation of future investment returns and permits the comparison of alternative rates to return under assumed altered conditions.

54 See E.P. Eichler and M. Kaplan, op. cit., pp. 61-74.
By way of clarification, however, it should also be emphasized that these builders and subdividers have not exactly endeared themselves in the past to local governmental agencies. Their primary concern with "making a quick buck" in the short run and their attempts to market their product at the lowest possible price has often placed a heavy burden on a local government's efforts to provide additional services and public facilities. On the other hand, if a developer decides to undertake the construction of a new community, he is usually viewed with much less alarm by the local government. Provided he does not unduly antagonize local officials, he normally sustains fewer problems in obtaining the desired zoning, subdivision or building ordinances. This cooperative response by government can be attributed to (1) the large size of the proposed development, (2) the fact that the developer is undertaking a long-term commitment and will therefore follow through on his promises to the county or whatever government is involved, and (3) the complete range of facilities which the new town is presumably offering and which would otherwise be the responsibility of the government. In addition, the new town developers have an expert staff and consultants to carry out their project, and a high standard of planning and design is therefore ensured.

To illustrate the problems pertaining to government regulations which the new town developer, as opposed to the typical builder, has been able to overcome, reference is again made to Columbia. In this instance, the Republicans had just defeated the Democrats in Howard County for the first
time in forty years, with the only real issue being zoning, and with the Republicans promising to maintain a low density county through half-acre zoning.\textsuperscript{55} It was in this climate of public opinion that the original land for the new town was purchased. Yet, when it came time for the zoning to be approved, not one single person was in opposition. Furthermore, at that time, the general county plan made no provision for such developments. Since then, however, primarily due to the impact of Columbia, the provision for a New Town District has been incorporated into the zoning regulations for Howard County.\textsuperscript{56} Under this by-law, a developer with at least 2,500 contiguous acres of land can apply for a New Town District zoning.

In California, the opportunity for a developer to create a special district has played a particularly important role in allowing for the development of new towns. These districts are public authorities. Their governing board is elected on the basis of assessed valuation of property within the district boundaries and they are also permitted to issue tax-exempt bonds. This allows the developer to acquire capital on easier terms and provides the mechanism by which the new town can be serviced with facilities such as sewage disposal, water supply, street improvements and open space. The effective interest rate on the bonds is often less than 5\%, the principal payments are deferred in the early years and the repayment period can also be thirty years or more.\textsuperscript{57} This allows


\textsuperscript{56} The Board of County Commissioners of Howard County, A New Town District within the Zoning Regulations, a Copy of the By-law, May, 1965. For further information, contact Thomas G. Harris, Planning Director, Howard County Planning Commission, Ellicott City, Maryland.

\textsuperscript{57} E.P. Eichler and M. Kaplan, op. cit., pp. 24, 44-45, 98-99. Under the State enacting legislation, as few as six residents can create a public district.
developers to cut their initial costs.

A good example of the use of a special district can be seen in the creation of the new town of Foster City, near San Francisco. Here, the Estero Municipal Improvement District was created by a special act of the State Legislature in 1960. The district has all the powers of a municipality, with the exception of zoning and certain police powers, and had the authorization to issue $72 million in tax-exempt municipal bonds which were secured by land and improvements. At the same time, the developer was still in control because two of the three District directors were elected by property owners on the basis of the assessed value of their holdings. In this case, the developer, T. J. Foster and Sons, still controlled 60% of the assessed valuation in the district in 1967, even though the community had grown to 5,000 persons.

Other Factors. It is evident from the previous discussion that a number of factors have combined to produce the recent interest in the building of new communities. Variables such as corporate investment, economies of scale and governmental influences have been dealt with under specific headings. In addition, throughout section three of this chapter, reference has been made in passing to such factors as improved transportation facilities (freeways in particular), the decentralization of industry and the buyer's market. It is the purpose of this sub-section to merely point out additional influences in the emergence of new communities which have more or less been taken for granted throughout this chapter. For example, such factors as a sustained population growth, increasing leisure time and recreation, rising per capita income and

58 Ibid., p. 98. See also David L. Peterson, op.cit., pp. 48-49. Since 1963, California has adopted stricter special district incorporation requirements and Local Agency Formation Commissions (LAFC) have been established to supervise the formation, consolidation and dissolution of local governments.
more people receiving a higher education have been well documented and need not be discussed at this stage. Suffice it to say that developers and investors have also recognized the fact that, due to the impact of these variables, people are beginning to demand more in terms of their "living environment" than the traditional suburb is generally able to provide. In this regard, it is interesting to note that a number of new town developers have entered the field, admittedly to make a profit, but also, in the words of one author, with the zeal of a missionary, and determined to introduce a better way of life. This approach is exemplified in the persons of Robert Simon, the original developer of Reston, and James Rouse, the developer of Columbia. To quote Rouse for instance:

"Personally, I hold some ..... conclusions to the effect that people grow best in small communities where the institutions which are the dominant forces in their lives are within the scale of their comprehension and within reach of their sense of responsibility and capacity to manage."  

It is evident, therefore, that the personal convictions of some of the new town developers have also been partly responsible for the emergence of new communities.

59 It is highly unlikely, for instance, that the rapidly growing demand for recreation space and facilities can be met in a suburb where the traditional approach has been to designate "whatever is left over" as a park.


61 Ibid., p. 93. It is interesting to note that Rouse's views are supported by a substantial proportion of the population in the United States, based, at least, on a Gallup Poll conducted in the U.S. by the Washington Post in 1966. The results revealed that, in answer to the question where one would choose to live if given the choice, 22% preferred the city, 28% the suburbs, 31% the small town, 18% the farm and 1% no opinion. In essence, although one-third of the national population live in towns under 10,000 or in rural areas, 49% said they would like to live in a small town or on a farm. For reference, see The Washington Post, March 22, 1966. These figures are substantiated by a similar poll conducted by the Minneapolis Tribune for the State of Minnesota. See National Growth and its Distribution, op. cit., p.59.
IV. CHAPTER SUMMARY

This chapter has examined the changes which have occurred in the housebuilding and land development business in the last twenty-five years. It has attempted to illustrate that during this period the industry has gradually increased its scale of operations in order to improve its efficiency. More recently, this striving for greater efficiency has been reflected in the emergence of new communities. With such developments, builders and developers have been further able to refine their management and marketing techniques. In addition, more secure capital backing has been possible and innovations in land development have been introduced. In essence, therefore, the appearance of new communities, as initiated by private enterprise, can be partly attributed to the evolution of the housebuilding and land development industry itself and, consequently, should not be considered as merely an ephemeral phenomenon.

This chapter has also examined additional factors which have produced the interest in new communities. These influences, such as population growth, industrial decentralization, new freeways, increasing leisure time and a more articulate demand for goods and services could be described as conditions of the period rather than variables particularly applicable to the housing and development industry per se. There is no indication, however, that there will be a cessation of such general trends in the near future. Rather, they will continue to produce a climate conducive to the continued emergence of new communities.

Of all the factors involved in the growth of privately developed new towns, corporate investment has been the most difficult to assess in terms of its likely permanency. Certainly, continued corporate involvement will be greatly influenced by taxation advantages. However, because of the profits
to be gained in real estate, it is likely that such participation will con­
tinue, although the nature of this involvement may shift over time.
CHAPTER III

THE IDENTIFICATION OF A RANGE OF POSSIBLE LOCATIONAL CRITERIA FOR NEW COMMUNITIES

This study has previously implied in Chapter I that an important aspect of new community planning concerns the formulation of a development policy for a region which would include general locational criteria and the identification of feasible sites for new communities. The contention has also been made that such sites, when designated in metropolitan regional plans by planning agencies, should be cognizant of market forces provided, of course, that this variable is treated as only one criterion or set of criteria among many and that the final new town location represents an acceptable balancing of all public and private criteria involved. Chapter II then attempted to establish the increasing significance of privately developed new communities in structuring the urban pattern of metropolitan regions. Numerous variables accounting for the appearance of new communities at this time were pointed out and some understanding was gained of the factors influencing private investment in such communities. These factors, in turn, such as economies of scale, a more articulate market demand and government regulations, allowed one to more fully grasp some of the overriding variables that would have to be considered in any locational decision by a private developer.
It is the purpose of this chapter to outline a range of possible locational criteria that might be considered in the selection of appropriate sites for new communities. To ensure a reasonably complete list, a wide cross-section of past new town developments, both on this continent and abroad, will be examined in terms of their locational requirements. It is left to the reader, however, to familiarize himself with the new town concept and the objectives of the various countries that have applied it in the past.

I. A RANGE OF POSSIBLE LOCATIONAL CRITERIA

Historically, the locations of existing cities have been strongly determined by their original urban functions and by the technological base of the particular period of civilization in which they were founded. A European city can trace its origin to medieval times when towns, if they performed a marketing function, were situated at outstanding nodal points where navigable waters and overland trade routes converged or, if they were principally intended as fortresses, at strategic and easily defended sites such as a peninsula or high point of land. Similarly, in North America the great movement to settle the West and the advent of railways resulted in the concentration of urban activity first at locations suitable for the dispersal of many westward wagon trails and later, at sites along the railway tracks. In many cases, however, the original function of these cities is no longer relevant in the face of a rapidly changing technology. If their sites were re-selected, it is highly likely that an entirely different hierarchical pattern of cities would evolve.

In a sense, the appearance of new communities provides this opportunity for a second look at the location of urban places. These communities, in contrast to the spontaneous growth of previous cities and towns, presumably could
be planned and located on the basis of a wide range of criteria which would be more in keeping with current trends in such variables as recreation demand, industrial decentralization and transportation innovation. With this in mind, the following list of possible locational criteria is presented in no particular order of importance.

**Avoidance of Good Agricultural Land.** The world's population is presently growing at an approximate rate of sixty million persons per year and still accelerating. Some experts are therefore concerned with the state of man's future food supply. Ecologists argue that the critical question in this regard is related to the actual control of population growth itself. Many planners, on the other hand, are convinced that such growth can be accommodated adequately provided that people are rationally distributed over the earth's surface. Naturally, therefore, these same planners must view with alarm the current trend toward greater urbanization and increasing suburban spread, particularly when a large percentage of such growth is occurring on prime agricultural land. In the United States alone, for example, of 465 million acres of cropland, only 72 million acres are in Class I land and half of this is located in expanding urban areas.\(^1\) Canada is also in a similar position with the Niagara fruitbelt of Ontario, the productive farmland north of Toronto and the lower Fraser Valley of British Columbia undergoing rapid urban growth.

In addition to the agricultural land that is actually put into urban use, however, there are also thousands of acres withdrawn from production and then left idle in anticipation of a future increase in land values. It has

been estimated, for instance, that the effect of this land speculation or urban shadow on five Canadian metropolitan areas between 1951 and 1956 was such that 382 acres of farm land were taken from cultivation for each 1,000 increment in urban population.\(^2\)

The value of agricultural land has previously been viewed primarily in the context of its capability for food production. The desirability of maintaining open space both for multi-use purposes such as agriculture, education and recreation, and as a means of structuring the growth of metropolitan areas in a flexible manner has been largely ignored. Washington's Year 2000 Plan, for example, has used this idea to some effect. Its plan imparts a certain degree of flexibility because the large amount of open space provided allows for a future land use that could not possibly be envisaged at this time.

Finally, no matter what the future holds for agricultural land as a source of food supply, there can be no excuse for overrunning rich farmland if alternative urban building land is available close by. In this regard, studies are needed to indicate the relative costs of using alternative land for either agricultural or urban purposes.

The preceding discussion has implied that the avoidance of good agricultural land is one valid criterion that could be applied in the location of new communities. Such a policy, if adopted, would have the benefit of British experience where the quality or usefulness of the land for agricultural purposes has been a major determinant in the siting of their new towns. This policy has been emphasized in the following manner:

\(^2\) Economic Council of Canada, Fourth Annual Review, The Canadian Economy from the 1960's to the 1970's, (Ottawa: Queen's Printer, Sept. 1967), p. 196. If this average rate were applied to the projected population growth of Canada's 29 largest centres, 1.8 million acres of cropland would be lost even though new building development would amount to only one-third this total.
"It is seldom possible to avoid encroaching on some agricultural land but the Minister would not include any appreciable amount of good agricultural land in a designated area if any practicable alternative could be found."  

This concern for the reservation of farm land wherever possible has not diminished since the 1940's, even with more advanced technology and greater yields per acre. Consider Dawley and Skelmersdale, for example, two of the more recent British new towns. The former is located on largely derelict land and therefore has a large area of 9100 acres to accommodate 90,000 persons. In contrast, Skelmersdale, located on good agricultural land, accommodates almost as many people (80,000) but the site area of 4,000 acres has been minimized as much as possible.

Open Sites or Developed Sites. In formulating a regional development policy for new towns a basic question that must be posed is whether or not such developments should be encouraged to locate in completely open country or as part of new town additions to existing towns or small cities. In Canada, for example, almost one-third of the population has gravitated to three major urban complexes in spite of government efforts to build up smaller municipalities by offering inducements to industry. Given this fact, many people might consider it unjustified to concentrate on the construction of entirely new towns at the expense of existing communities which are stagnating or growing at a slow rate. These same people might say why not designate appropriate existing communities as potential new towns? Under such a policy, the emphasis would be on the entire spectrum of features that make for sound community growth and not just on industrial promotion. It would involve a comprehensive approach in which new

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housing, services, commercial, recreational and institutional facilities, and secondary industry would be provided. It could also involve a coordination with other policies connected with the re-housing of people from urban renewal areas or the building of new provincial educational facilities. Macklin Hancock, for instance, has suggested that there is an incipient opportunity for the construction of new towns under the new policy of university extension for Ontario. There is no reason why cities such as Peterborough or Guelph, each with populations of approximately 55,000 and each experiencing slow rates of growth, could not expand up to 200,000 persons based on new town design principles, with the university as employment and urban form generator.

Problems will remain, however, whether the site selected is open or developed. Certainly, a completely new community presents the opportunity to "start from scratch" both at the conceptual and ground levels. There is also less chance of inflation in land values. In addition, many of the services in any existing town would have to be replaced completely or enlarged in order to accommodate any appreciable increase in population. The cost of such a programme would be extremely high and would likely exceed the price involved in just building entirely new services on an open site. On the other hand, if an existing town is selected as a nucleus, the site has already proven to be economically viable and the chances of attracting industry might be greater. Furthermore, by expanding on an existing community of some size, it is more likely that the threshold size of the town, whereby the population and urban functions would begin to proliferate at a quickening pace, would be reached much sooner. The new town could then operate as a counter-magnet of some size in attracting people from the metropolitan area.

In Britain, due to the high density of the population, it has been difficult to find completely undeveloped sites for their new towns. At the time of designation, the population at the site has ranged anywhere from 60 persons at Aycliffe to 9,000 at Crawley to 36,000 at Irvine. In many cases, difficulties have arisen where it has been necessary to incorporate existing communities into the new town structure. At Stevenage, for example, there was a great deal of political opposition from the local residents to the new town designation. At Hemel Hempstead the master plan had to be kept very flexible because of the numerous adjustments made necessary by the large existing population. Such problems could not have been regarded as too serious, however, as the new town sites recently selected have been established on an even larger base population. Previously, Hemel Hempstead, with 21,000 persons, had the biggest existing population. Since 1960, the new towns of Redditch, Runcorn and Irvine, with original base populations ranging from 29,000 to 36,000 have been designated.

Accessibilty and Transportation. Any study of the historical development of cities will testify to the importance of transportation facilities such as the railway, electric street-car and automobile in structuring urban growth. If present cities, therefore, are so much a reflection of the reciprocal relationship between transportation and land use, it goes without saying that accessibility must be an essential ingredient in planning for the location of a new community. The modes of travel considered pertinent to the site selection of such a community are outlined below.

(i) **Air Transport.** Provided that it is located at a sufficient distance to neutralize the adverse effects of noise and air pollution, a major
airport can be a significant asset to a new community. First, it can directly promote the industrial expansion of the town itself. Many research and light industrial firms, for example, produce small but valuable products which can be economically shipped by air freight. This in turn provides employment which generates housing and commercial demands in the new community. Second, with the tremendous increase in air travel, a range of land uses such as office buildings, motels, warehouses and factories have converged on the airport. It then becomes a focal point for business and employment as well as a transportation centre. Although such a phenomenon has not yet reached a truly advanced stage, the recent development at Shannon Airport in Ireland is perhaps symptomatic. Indirectly, this type of activity affects the new community because the airport becomes a regional employment generator and many people will wish to live close to their place of work. Third, with American domestic air operations increasing at the rate of 3% per year, the journey to the airport has become an integral part of the current urban transportation problem. In fact, there is now even talk of minimizing travel time and accessibility disadvantages in the larger metropolitan areas by providing high-speed rapid transit and helicopter service to the airport. A new community planned in the vicinity of a large airport, therefore, could conceivably tap on to any future rapid transit line. Also, those people making frequent use of air travel may wish to be conveniently located in relation to the airport.

In the past, new towns for the most part have not been developed with any particular consideration for airport location. In Britain, for example,

5 The Shannon Free Airport Industrial Estate was set up with the intention of using air freight almost exclusively in manufacturing and associated operations.
there was little conscious effort to include such a criterion in the selection of sites in the immediate postwar period. Hindsight, however, has since revealed that compared to its sister communities, Crawley, located four miles from Gatwick Airport, has been able to attract a greater variety of fast-growing secondary industries. A considerable number of residents in the new town are also employed at the airport.

It is understandable that this transportation variable could be disregarded in an earlier period. No one could adequately foresee, for example, the impact of first the jet and now the jumbo jet. In the future, however, it will be difficult to ignore the effect of airports on the location of urban activity. The non-passenger carrying sector of the aviation industry will continue to grow. Intermetropolitan travel times by air, provided that the terminal problem of accommodating so many planes wishing to land can be overcome, will continue to decrease at a greater rate than those of land transport within the metropolitan area itself. This increased mobility will undoubtedly be required if, as Trist asserts, the structure of the economy is becoming more international in scope and characterized by quaternary occupations demanding perceptual and conceptual skills on the one hand and interpersonal skills on the other.

(ii) Rail Transport. Both commuter and long-distance railway patronage has generally been declining in the face of increased competition from air and road transport. This has occurred in spite of the opportunity for expanding the volume of passenger and freight movements due to population

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growth, higher incomes and a rising national product. Attributable factors include (1) greater flexibility and mobility of the truck and automobile and the greater speed of the airplane; (2) lower cost of truck haulage even over long distances; (3) the fact that the delivery of materials to a manufacturer can be more closely coordinated with production when road transport is used; (4) the increase in production of highly technical equipment such as electronic components and precision instruments which have a high value to weight ratio and can be shipped by plane; (5) the uniformly low population density created by urban sprawl which cannot support an economically viable commuter rail system and hence, produces an even greater customer fall-off because of the resulting deterioration in service and equipment.

Given such factors, it is nonetheless considered desirable that a new community be located adjacent to an existing railway line. First, there is no evidence to suggest that, in spite of the trend toward air and truck transport, a large proportion of industry will not continue to demand rail service. In fact, if highway congestion increases and the recent technological advances made in rail transport proceed, such as high-speed service, there is every chance that this demand will intensify. If not, the point is still to be made that one of the objectives of the new town should be the provision of a potential for industrial investment. A range of sites in both size and location should therefore be made available for industrial use. Second, and perhaps more important, by locating on an existing rail line there is recognition of the fact that it could eventually be used as a rapid transit route into the central city. This type of service is exemplified in the recently introduced Government of Ontario (GO Transit) commuter rail system on existing Canadian
National tracks between Hamilton and Pickering, with Toronto as the focal point. The integration of the new town with such a rail link would provide the necessary concentration of urban activities and the higher population density to help support the transit system. At the same time, the specialised education, entertainment and shopping opportunities of the central city would be within easy reach of the new community. The demand for such facilities would of course be determined by the size of the new town and, concomitantly, its distance from the metropolitan core.

Past new town experience in Britain and Scandinavia tends to support the view that rail access is a valid locational criterion. In Stockholm, the population centres \(^7\) and the transportation system are planned to complement each other. The size of each new community is limited to a pedestrian radius of \(\frac{1}{4}\) to \(\frac{1}{2}\) a mile from the central shopping area which also includes the rapid transit station. Priorities for new transit construction are closely tied in with projected new community development. Vallingby, for example, was designated in 1950 and in the short span of two years the transit terminal had been opened.

In the case of Britain, the Final Report of the New Towns Committee specifically stated that the proposed new towns should preferably be located on through railway lines rather than at the end of branch lines. In fact, it went so far as to suggest that the likely rail traffic generated by the new town might necessitate additions to existing railways. Such optimism was not fulfilled, however, as rail access has proved to be of less importance in attracting industry to the new towns than was originally supposed. On the

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\(^7\) Correspondence with the Stockholm Planning Department revealed that the satellite communities under discussion were considered by the Swedes not to be new towns but rather planned suburbs.
other hand, subsequent passenger traffic did increase sharply, not as a function of the journey to work pattern, since the greater part of the increase took place on the weekends, but because of the attraction of London as a centre for specialized services.

(iii) Road Transport. Due to the popularity of the motor vehicle, the importance of road access in the location of new communities is almost self-evident. In the United States, approximately 80% of all consumer units now own an automobile. This demand for mobility will increase even more in the future due to more leisure time and higher incomes. At a time when urban congestion is becoming even more severe, therefore, it is little wonder that the freeway in particular has become a significant catalyst in shaping land use patterns. In effect, it has taken over where the railway left off as the skeleton of the metropolitan city. It opens up areas that previously could not be considered for development because of poor access. It stabilizes land uses by delimiting basic long range patterns. Already, in fact, a new urban form is emerging with characteristics such as the absence of ribbon commercial development which has been precluded by limited access freeways.

It is this last point that probably has the most significance for new communities. Since the freeway does indeed have limited access, it serves of little direct value unless the interchanges can be coordinated with the new town development. An interstate route, for example, might just as well be a county road if a new community resident must travel five to ten miles out of his way just to get on the freeway. Unfortunately, however, it is not always easy to take advantage of a freeway interchange when locating development. It is in the more outlying parts of the metropolitan area where new towns will
tend to concentrate and it is precisely in these areas where planning controls are often minimal. As a result, once an interchange is established on a freeway, the site is often preempted by undesirable scattered development, thereby frittering away the chance to secure a potentially viable site for a new town.

In addition to freeway connection to the central city, however, good regional road communications are also a necessity if a range of transportation choices are to be provided. Such highways will ensure access to the new community from a number of directions, thus helping to promote the new town as a commercial and service centre for the region in which it is located. Also, many industries attracted to the new town will demand good road connections in order to bring in materials required for production.

Lest one underestimate the importance of integrating road and new town planning, it is advisable to consider the recent experience of the American Greenbelt Towns. Their failure to entice industry or substantial office employment has been partly attributed to the lack of railroad sidings, and, in the early days, to unsatisfactory road connections. At that time, the latter was not considered a disadvantage. One observer of the period, for example, noted that the towns were located near through highways but not on them so that traffic hazards would be reduced to a minimum. Such a statement could certainly not be made today as arterial roads, under the pressures of metropolitan expansion, have proliferated in and around all three towns. The effect in Greenbelt, for example, has been to cut up the community into a number of sections which are not readily accessible to each other because no overpasses were provided to the amputated parts. If no adequate precautions are taken

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8 Albert Mayer, *Greenbelt Towns Revisited*, p. 22.
now, a similar future situation could occur with the new towns presently being planned further out on the metropolitan fringe.

In Britain, good road access was considered as a fundamental condition determining new town location. The New Towns Committee had originally given equal weight to communications by road and rail but subsequent experience has shown that employers are looking first for a good system of regional and national roads for the supply of raw materials and the delivery of finished products. This partly reflects the absence of heavy industry in most of the new towns. Highway and land use conflicts are usually minimized because the development corporations have the power to acquire, compulsorily if necessary, any land within the area designated as a new town. Also, principal highways generally skirt the new town through its green belt where only open space uses are allowed.

**Access to Recreation.** Trends in leisure time and recreation demand have been well documented by the Outdoor Recreation Resources Review Commission and need not be repeated in detail in this study. Suffice it to say that advances in cybernation and industrial organization, rising incomes, population growth and an increase in mobility range due to the automobile and airplane have resulted in more people participating in leisure activities during longer vacations and a shorter working week. This emergence of recreation as a factor in urban and regional development is emphasized all the more by the fact that consideration is now being given to (1) the type of urban form that will maximize the "exitability" of people from the city for recreation purposes and

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and (2) the spatial agglomeration of recreation facilities as growth-points around which to concentrate year-round supporting services and activities.¹¹

In regard to the location of new communities, therefore, current and particularly future recreation demand raises a number of factors that bear consideration. First, there is the question of providing recreation facilities right at the new town site itself. By selecting a location that has such features as a rolling topography, many trees, and a lake or a stream, it is possible to meet a large part of the recreational needs of the residents within their immediate environment. In addition, even though many residents might make little use of the recreation facilities so provided, studies have revealed that the availability of such amenities still has an effect on a prospective buyer contemplating moving to the new town. Werthman,¹² for example, found that the typical lay view concerning the value of planning was that it should maintain property values and minimize any variables that might be detrimental to the existing environmental security of the community or neighbourhood in question. The provision of much open space and amenity areas tends to cater to this market characteristic.

A second factor to consider in the face of increasing urban congestion is to locate new communities so that they are more easily accessible to the recreational hinterland of the metropolitan area. This would help to reduce the current heavy pressure exerted by week-end recreation travellers on existing highways. In Southern Ontario, for example, the traffic congestion


caused by cottage-owners leaving Toronto on Friday nights for the northern lake areas and returning on Sunday evenings has become so severe that the Ontario Department of Highways has assigned on a permanent basis a number of their researchers to specifically study this problem.

Of past European new town developments, those in Scandinavia probably come closest to recognizing the impact of increasing recreation demand. Tapiola, in particular, has sought to provide a physical environment that would strongly contrast with that existing in Helsinki. An intentional effort has therefore been made to maximize recreation opportunities, with water playing an especially prominent role in the community plan. The new town is located on an outdoor lake and is also situated on the Gulf of Finland where marina facilities have been provided. In Britain, the Final Report of the New Towns Committee made no specific mention of recreation. It did, however, suggest that new town sites should avoid areas of exceptional natural beauty or great historic interest and that the charm of the normal countryside should not be destroyed. Save for the provision of much open space in the new towns, primarily as a means of maintaining low population densities, there is no indication that recreation has been adopted as an integral concept of the newtown designs, at least in the spirit of the Scandinavian new communities.

Physical Characteristics of the Site. The selection of the new town site and the subsequent provision of the basic infrastructure to make the town "liveable" are two separate but highly interrelated stages in the planning of a new community. Characteristics such as topography, drainage, subsoil and water are such obvious factors in the economical servicing of the site with streets, sewers and water mains that little elaboration on their importance is required. Suffice it to say that topography should preferably be undulating
rather than steep or flat if the costs of services, roads and grading are to be kept down. Expenses increase sharply once slopes exceed 10%. Completely flat sites, besides inducing monotonous development, usually entail high underground servicing costs because deeper excavation is required to achieve the necessary flow velocity in the sewer channel. An indecisive drainage pattern will create storm sewer problems while those locations with underlying bedrock close to the surface or high ground water will also be more difficult to develop. A preponderance of clay or marshy soil will not be easy to drain, liable to subsidence and will afford unacceptable building foundations or expensive structural precautions. A continual supply of water for both industrial and drinking purposes is, of course, a most obvious necessity.

Due to the size of the new town site, the terrain will probably vary widely. It is not likely therefore that any one location would be sufficiently devoid of good topographic or subsoil conditions that the entire site would be unacceptable. Those areas within the boundaries of the new town that are not suitable for development could still be incorporated into a flexible community plan by using them for open space and recreation purposes. In addition, recent experience has shown that private developers, if not public, have found it within their means to alter some sites that have contour deficiencies. In Irvine, California, for example, flat land has been sculptured by bulldozers into undulations that allow for greater variety in the siting of residential buildings.

13 Most of the new towns under discussion in this study are also located in metropolitan regions where the past history of population growth and urban growth has indicated very few areas where site development problems could not be overcome.
It is not just at the scale of each new town site, however, that water supply and the drainage pattern are important locational criteria. At the regional level their overall impact is probably greater because they define the broader watershed areas within which the more specific new town site designation can then be made. To provide a hypothetical illustration, the watershed boundary of a large lake might be location 30 miles to the west, with the existing sewage disposal system for the area centred on the lake. Any large development beyond the watershed boundary would then necessitate the construction of costly and lengthy sewer lines, so that the distance of any new community to the west could be effectively limited to a location within 30 miles of the lake.

On the basis of published information it would appear that the British have placed a very heavy emphasis on locational criteria oriented to the physical features of the site. In this regard, the availability of a water supply assumes a dominant position. Sewage disposal only takes on importance when river pollution is threatened. The location of utility services such as gas or electricity are not considered significant because both are distributed by national grids with service connections in most parts of the country. Although sites suitable for development are desirable, this requirement can be set aside if the utilization of more unsuitable land will preserve property better suited for agriculture. In contrast to these physical variables, other factors related to the economic viability of the site and to the regional impact of the new town have largely been ignored. Rodwin, for example, observed in 1953 that the Ministry of Housing and Local Government responsible for the location of the new towns employed no trained economists. At the same time,
the Board of Trade which controlled the licensing and location of industry had neither the staff nor the time to do the careful analysis necessary to check decisions on new town site locations. ¹⁴

Whether the British have refined their site selection methods in recent years is difficult to determine. Since the New Towns Act is silent regarding the criteria to be considered in weighing possible sites and stipulates only that the new town designation be expedient in the national interest, the site selection process is largely ad hoc. As a result, the Ministry has broad discretionary powers to use or not to use any data that it sees fit. Its work is unreviewable for the most part so that many locational criteria that might be employed are not made public.

Attraction of Industry. Fundamental to the new town concept has been the idea that such towns should be places of work as well as places of residence. Without employment there is no reduction in commuting, no broadening of the tax base and no stimulating economic and social mix. The town remains a dormitory community that is little different from the typical suburb. If the objective of a balanced community is to be achieved, therefore, it is imperative that careful consideration be given to the suitability of any proposed new town site for attracting industry.

In many cases, criteria which attract residential development, such as water supply, good access and proximity to a metropolitan areas, are also important factors in industrial location. However, if such a correlation results in a developer assuming that the mere designation of a new town site will guarantee a future industrial base, then it is not likely that the desired

balance will be attained. Firm location is dependent on a wide range of
criteria with priorities that differ by the type of industry. Compliance
with one or two of these locational requirements does not necessarily ensure
the attraction of firms to the new town. This is illustrated in the case of
the Greenbelt Towns. These communities were sited in metropolitan areas that
had a high economic stability, a diversity of industry, a housing shortage
and a high employment rate. Nevertheless, they still had little success in
broadening their tax base through the attraction of industrial and office
employment.

The site for the new town should be selected with due regard for the
locational requirements of the type of firm it wishes to attract and the
industrial potential of the region in which it is situated. The type of
industry that a new community desires to obtain is influenced by a number of
considerations that might include the following. First, since the developer
is interested in presenting the community as a total environment concept, tight
architectural controls on firms locating in the new town will be exercised.
Some industries will also likely be rejected because of the risk of objection-
able odors, heavy truck traffic or the necessity of outdoor storage facilities
which might mar the appearance of the community. Second, in spite of the tax
dollars to be received, the developer may be hesitant to accept a large, pres-
tige industry in the early stages of the town's development because of the
danger that the community might take on the look of a company town.15 Third,
there is a distinct advantage to a new community if an effort is made to attract
those employment opportunities that are complementary to one another. The
experience in Britain, for example, has shown that it has not been possible

15 F. Lalli, "New Towns: Are They Just Oversized Subdivisions with
to limit the size of the new town to the original target population because certain jobs have generated other. If these types of industries are concentrated on first, then there is greater chance that the new community will achieve its desired balance at a faster rate. Finally, an assessment of the industrial base in the region in which the new town is to be located should prove beneficial. The trend today is not toward distinct, self-contained communities but toward integrated regional settlement patterns in which there is a cross movement of employees from one town to adjacent centres and vise versa. Obviously, therefore, the large employment generators in the region should be identified because they in turn will attract certain types of industries which may or may not be desired by the new town.

An additional fundamental question that must be considered is the distance that a new town can be located from the central city and still attract an industrial base. European experience, as exemplified in part by Table II, indicates that no new town with satellite functions has been located further than 30 miles from any large city. The table also shows that this distance has been generally reduced in the British new towns of the sixties. This reflects a change in policy by the British. On the one hand, new cities of approximately a quarter million population are being proposed to act as countermagnets at some distance from metropolitan areas. On the other hand, the smaller new towns will still go ahead but the view is increasingly being taken that such communities need not be completely separate and self-contained. In discussing Washington new town outside of Newcastle, Atkinson expressed this

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16 See, for example, W. Lean, "Economics of New Town Size and Form", Journal of the Town Planning Institute, Vol. 52, July 1962, p. 262.
17 This trend has been expressed in location theory by the nodality concept which maintains that proximity rather than the concentration of population and industry is an important location factor.
### TABLE II
DISTANCE OF EUROPEAN NEW TOWNS FROM NEAREST LARGE CITY

<table>
<thead>
<tr>
<th>New Towns</th>
<th>Year of Designation</th>
<th>Proposed Population*</th>
<th>Nearest Large City</th>
<th>Nearest City</th>
<th>Size of Nearest City</th>
<th>Distance From Nearest City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BRITAIN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basildon</td>
<td>1949</td>
<td>133,000</td>
<td>London</td>
<td>8 million</td>
<td>28 miles</td>
<td></td>
</tr>
<tr>
<td>Crawley</td>
<td>1947</td>
<td>120,000</td>
<td>London</td>
<td>8 million</td>
<td>30 miles</td>
<td></td>
</tr>
<tr>
<td>Harlow</td>
<td>1947</td>
<td>90,000</td>
<td>London</td>
<td>8 million</td>
<td>23 miles</td>
<td></td>
</tr>
<tr>
<td>Hemel Hempstead</td>
<td>1947</td>
<td>80,000</td>
<td>London</td>
<td>8 million</td>
<td>26 miles</td>
<td></td>
</tr>
<tr>
<td>Stevenage</td>
<td>1946</td>
<td>80,000+</td>
<td>London</td>
<td>8 million</td>
<td>30 miles</td>
<td></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Runcorn</td>
<td>1964</td>
<td>90,000</td>
<td>Liverpool</td>
<td>1 million</td>
<td>12 miles</td>
<td></td>
</tr>
<tr>
<td>Skelmersdale</td>
<td>1961</td>
<td>80,000</td>
<td>Liverpool</td>
<td>1 million</td>
<td>13 miles</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>1964</td>
<td>80,000</td>
<td>Newcastle</td>
<td>.3 million</td>
<td>5 miles</td>
<td></td>
</tr>
<tr>
<td><strong>Scotland</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumbernauld</td>
<td>1955</td>
<td>70,000+</td>
<td>Glasgow</td>
<td>1 million</td>
<td>14 miles</td>
<td></td>
</tr>
<tr>
<td>East Kilbride</td>
<td>1948</td>
<td>100,000</td>
<td>Glasgow</td>
<td>1 million</td>
<td>8 miles</td>
<td></td>
</tr>
<tr>
<td>Livingston</td>
<td>1962</td>
<td>100,000</td>
<td>Edinburgh</td>
<td></td>
<td>13 miles</td>
<td></td>
</tr>
<tr>
<td><strong>SCANDINAVIA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tapiola</td>
<td>1952</td>
<td>80,000</td>
<td>Helsinki</td>
<td>.5 million</td>
<td>7 miles</td>
<td></td>
</tr>
<tr>
<td>Vallingby</td>
<td>1950</td>
<td>80,000</td>
<td>Stockholm</td>
<td>1 million</td>
<td>10 miles</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**

*The population figures given above for Britain have been substantially raised from the original population anticipated at the time of designation. The above figures also indicate the ultimate population to be reached by natural increase and not just the population size when it is proposed to stop importing people and jobs.*
new attitude as follows:

"It will not be a self-contained and separate community, but will utilize and add to the employment, social, recreational and shopping facilities of the Tyneside city-region ... The relationship between the new town and the conurbation will be symbiotic rather than parasitic; each will depend on and have something to offer the other ... For these reasons one can expect Washington to become a member of a third generation of new towns."18

Political Factors. Previous reference was made in Chapter II to the role of the governmental variable in new town development. At that time it was pointed out that, generally speaking, a new town developer received a more co-operative response in his dealings with local government than many builders and subdividers. In part, this is attributable to the long-term commitment that is being made to the municipality and to the complete range of facilities which the new town is presumably offering.

In spite of this generally positive response, however, a developer cannot be too careful in assessing local governmental policies and past performance before deciding on a new town's specific location. The essentially rural areas in which the new communities are situated will likely not be too familiar with the relatively sophisticated approach of a new town developer. There is also the chance that the municipality has had an unhappy past experience with urban sprawl development and would therefore be hesitant to approve a new town project that in its eyes would merely act as a catalyst in attracting the type of urban use that it had previously sought to discourage. Then, of course, there is the likelihood that the response to a new community project will vary from one area to another, depending on the demographic and income characteristics of the residents. For example, it would probably be more

difficult to "sell" the new town in a conservative county with a large number of high income country-home dwellers who have moved to the area to enjoy a quiet life away from the city, than in any county adjacent to Los Angeles where the people have come to expect and, in fact, take pride in the regional commitment to physical and economic expansion at any cost.

Given such varying circumstances, therefore, the favourable response of the local area in which it is proposed to select a new site for a new town should not be taken for granted. Every effort should be made to assess the political climate beforehand, not so much because there is a possibility that the proposal will be refused outright, but because an overcautious approach by government often leads to unnecessary delays in getting plans approved. This in turn means a loss of money to the developer.

In assessing the suitability of the site in regard to the governmental variable, therefore, there are a number of factors that should be considered. First, how refined is the present method of zoning? Is there sufficient flexibility to allow for the zoning changes required with a minimum of time and trouble? If there is a likelihood that a developer will have to spend several costly months and maybe even years drafting and presenting the appropriate zoning to the local jurisdiction, then he is apt to go elsewhere. Lalli, for instance, has estimated that a two week setback due to governmental red tape can cost a developer as much as $40,000.\(^19\)

A second factor that might result in costly delays for the developer is the staff organization in the local jurisdiction. The more outlying or rural the area, the more likely the chances are that the administration will

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19 F. Lalli, op. cit., p. 95. This figure has undoubtedly increased since 1966.
have a small staff. One could imagine, therefore, the large amount of time that could be lost while the local staff proceeded to process the hundreds of plans and permits required in a new town project.

A third consideration is the extent to which a local jurisdiction is committed to long-range planning. The usual experience is that the more rural areas lack such planning and tend to treat each problem as an ad hoc situation. It is to the advantage of the developer, however, if the new town does happen to be located in a jurisdiction where the planning function has been refined. This will ensure among other things, that no undesirable development occurs in the vicinity of the new town and that no future highway changes take place that might make the original townsite obsolete.

Although the above discussion has concentrated on the relation of the private developer to the governmental variable, it is interesting to note that public opinion and other political factors have also played a role in the location of government sponsored new towns. In Britain, for example, the Minister of Housing and Local Government is vested with broad discretionary power in reaching site selection decisions. Under such a system, the approval of a new town site need not necessarily be supported by objective facts but merely by a subjective state of mind.\(^{20}\) To illustrate such flexibility, consider the new town of Stevenage. Granted, the location had all the prerequisites for a new town such as good transportation routes, an ample supply of water and flat land for industry. But such characteristics were common to a large number of potential new town sites in the London ring. The fact remains that probably the determining factor was the belief within the Ministry that

the general political situation in Stevenage was conducive to the acceptance of planning projects. This idea had originally been instilled when one of the London councils, making investigations for the location of a post-war housing estate in Stevenage, was given a favourable reception to its proposals.21

Land Assembly. New town developments outside North America have mostly been undertaken by public bodies with powers of expropriation if the need arose. As a result there have been no great problems in assembling the necessary land. On this continent, however, with private enterprise involved in most of the new communities, the land assembly variable obviously assumes critical importance in the location of the new town. If in doubt, one need only to review the secret tactics and the fake corporations used by James Rouse in assembling the land for Columbia.

The problem of land assembly is of course very much related to land costs. As noted in Chapter II, if a developer provides the complete range of services and facilities in a new town, then he is able to move further away from the metropolitan fringe and locate on land that is selling at a rate considerably below that of property on the immediate outskirts of the city. This advantage can be lost, however, if the landowners in question or land speculators learn of the developer's plans and hold out for more money than the developer can afford, if he is still to provide the required infrastructure and competitive house sales. For this reason, therefore, the developer will likely prefer to locate the new community on land that is either entirely in one ownership or else owned by a small number of people who possess large contiguous parcels. By so minimizing the number of land deals necessary, there

is less chance that the developer's prospective plans will be discovered and hence, land costs will not rise to speculative prices.

There are also other advantages to not selecting a site with a large number of small landowners. First, lawyers' fees and other administrative costs will be reduced if there are fewer sales contracts to deal with. Second, the risk of having an eventual land assembly parcel that is fragmented by small land blocks owned by people who do not wish to sell their properties is increased. Third, the time required to assemble the land may be reduced with fewer landowners and time is money to the developer. Fourth, the chances of having conditional sales in which the original landowners may be granted certain rights such as a life estate are lessened when the land is owned by fewer people.

**Prior Land Ownership.** No elaboration on this locational variable is necessary other than to re-emphasize the point made in Chapter II that a number of giant land holders have held their properties for many years for such purposes as ranching, fruit growing and extractive operations. Subjected to the pressures of urban growth and rising land values, these land companies and corporations are now finding it feasible to develop their holdings in urban land uses. Because of the difficulties of land assembly for new communities, such developers are in a fortunate position in comparison to those who must first search out a likely site and then attempt to purchase the property that is apt to be in multiple ownership. This type of new community is particularly prevalent in California with its history of large landholdings. In such cases, prior ownership of the land becomes the ultimate criterion on which the location of the new community is based. It is unlikely, however, that any decision
to develop the property in question would be made without first examining the availability of other criteria which have been outlined in this chapter.

Land Costs. Like the previous two variables, it is rather obvious that land costs will be an important locational criterion for any private new town developer. There is no doubt that some developers are genuinely concerned with current urban growth patterns and have personally committed themselves to producing a more human environment. The fact remains, however, that they are still interested in making money and no project will be deemed successful by them unless it is profitable. 22 If the new town is seen as a potentially lucrative land development operation, then land acquisition must be viewed as one aspect of the total cost picture which will also include management, overhead, infrastructure and holding costs. Once the expected future income from the completed project is determined, the developer should then have some idea of what range of land costs can be afforded. In the case of a new town, where the size of the site might be 8,000 acres, a slight reduction in land costs would have a tremendous impact on the total cost of the development. For example, a price of $1500 per acre as opposed to $2000 per acre in a project of this size means roughly four million dollars to the developer.

Given the fact that land costs will generally decrease with increasing distance from the metropolitan fringe, then the price that the developer is willing to pay for the property will play an important part in determining

22 Eichler and Kaplan in their book, The Community Builders, have stated that a new town developer will be lucky to make a 6% profit on the project. In contrast, others have suggested that as a strictly private enterprise venture new communities may not make economic sense. General Electric, for example, says that it is no longer interested (Newsweek, March 17, 1969, p. 42) in building new communities. Meanwhile, Morton Hoppenfeld, chief planner for Columbia, has stated that when all is said and done, proof of economic feasibility may be Columbia's most important contribution to American urbanization. See "A Sketch of the Planning-Building Process for Columbia, Maryland," Journal of American Institute of Planners, Nov. 1967, p. 400.
how far the new town is located from the central city. The site eventually selected will, of course, depend on a balancing of all the locational criteria involved and on the total cost picture of the project. It may very well be, for example, that a developer will be able to pay more for the land than he originally thought possible, at a site closer to the city, because a higher standard of existing underground services at that particular location would lower the infrastructure costs of the project.

Rate and Direction of Urban Growth. The rate and direction of population growth in an urban region may have two entirely opposite effects as a locational criterion, depending on the avowed purpose of the new town. First, if the project is undertaken by private enterprise, then the developer will be particularly conscious of an available market and will tend to locate in proven high growth rate areas. It is no coincidence for example, that the majority of existing or proposed new communities in North America are located either in the warm climate, migration receiving areas of California, Arizona and Florida, or in the metropolitan regions of Toronto, Washington and Baltimore, three of the fastest growing cities in their respective countries.

If the rate of growth is important, however, then the direction of urban expansion in the metropolitan area is just as significant. In this regard, particular attention will be paid to the overall regional growth pattern that is emerging. If a city is growing in a westward direction, for example, a developer will probably not attempt to counteract market trends by building the new town to the east. If it so happens that two large cities are growing towards each other, then a logical location for the new community is in the transportation corridor between the two urban complexes. That way, the developer can tap two potential markets.
In a contrasting situation, however, a new community could be used as a means of reversing market trends. This could occur under a government sponsored new towns programme with the objective of redistributing the population away from the high growth areas. In such cases, the rate and direction of urban growth, in the sense previously discussed, would then serve to discourage the location of new towns in such areas. In Israel, such a programme has been effectively implemented. In Britain, although one of the purposes of the new towns was to redistribute the population, it has not been successful from a national point of view. Granted, there has been decentralization on a local scale in the London and Glasgow regions. But this has not alleviated the so-called "two nations" problem. The centrifugal effect of the new towns in moving people out of London has merely facilitated the inflow of more people into the city from other parts of the country. The result, overall, has only been to increase congestion even more in the London region and to promote continued economic disparity in the more northern regions of England.

A Comprehensive Plan. This variable implies that as a criterion for site selection a new town should be located according to a comprehensive plan for the region or area in which it is situated. The significance of this variable in influencing the location of a privately developed new community will depend on the degree of explicitness of public policy in the region in question. For example, consider three possible situations. First, in the majority of cases it will not be of any importance whatsoever because of the general lack of regional development policies in North American metropolitan areas. In effect,

23 This term has been used to describe the large-scale drift of population and economic activity to the South of England at the expense of the rest of the country.
"the planning of new communities has generally overtaken the public planning for them. The contribution of such planning has often been to react to development rather than guide and influence it."

In other instances, a plan for the region at a very broad level may have been prepared in which a development concept such as a radial corridors pattern is outlined. Such plans, however, are usually intended only as general guides. They will include an urban development component as well as other components such as transportation and open space, but will not be sufficiently detailed to designate the specific site of a new town. In such cases the new town developer will undoubtedly refer to the plan to get some idea of the regional development strategy but it will not be the overriding factor in his decision to build at an exact location.

Finally, there is the chance that a master plan designating new town sites has been drawn up in greater detail at a more specific level of planning such as the county. It is at this level that the new town zoning will be controlled and fairly precise locations for new town districts may be designated. Assuming that the local government is able to withstand any political pressure to rezone (which is not usually the case), and the developer is forced to locate in an already designated new town district, then the comprehensive plan variable becomes the overriding locational criterion for the new town.

II. CHAPTER SUMMARY

This chapter has identified fifteen criteria that might be used in selecting a site for a new community. In order that all relevant criteria might be included, a wide cross-section of past new town developments, both in

North America and abroad, were examined. Due to a lack of detail in the published material available, however, it was not possible to determine specifically the relative importance of the locational criteria that have been outlined.
The purpose of this chapter is to determine the relative importance of the locational criteria outlined in Chapter III in the selection of new town sites by private enterprise. With this objective in mind, a questionnaire was drafted and forwarded to twelve private new town developers. Eight of these questionnaires were returned although one was only partly answered. Maps 2 to 6 show the general locations of these eight new communities. The names and addresses of the developers or consulting firms to whom questionnaires were sent are listed in Appendix B of this study. The questionnaire itself, with the accumulative responses, is included as Appendix A.

I. THE APPROACH

At the risk of being too repetitive in format, the approach taken in this chapter will be basically similar to that pursued in Chapter III. That is to say, the discussion will proceed on the basis of specific locational variables, rather than outlining in turn the site selection process for each new community. However, in proceeding in this manner, it is not intended to discuss in detail each new town under each listed site selection criterion. Rather, the approach will be to summarize the results of the questionnaire where possible, but to particularize where good illustrative examples or contrasting situations arise. Similarly, it is not intended to elaborate on each
question in the questionnaire. All of the answers are provided in Appendix A so that only those questions containing responses deemed significant will be referred to.

Prior to documenting the results of the survey, however, it is necessary to clarify a number of points in regard to the questionnaire. First, to the writer's knowledge, there have been very few, if any, published studies that have been concerned specifically with the location of privately developed new towns on a comparative basis. For this reason, the survey was treated primarily as a pilot study and should not be viewed as a comprehensive analysis of new community experience in North America metropolitan areas. Second, and directly related to the first point, the twelve new town developers that were selected to receive a questionnaire should by no means be regarded as a random sample of those developers on this continent now undertaking the construction of new towns or proposing their location. In fact, given the disagreement amongst those concerned with the new town concept as to what constitutes a new town and the number presently existing in the United States, plus the dearth of information on the less publicised developments, any survey based on a completely random sample would be most difficult to organize.

In selecting those new towns to be surveyed by questionnaire, the following factors were taken into consideration. First, the development had to comply with the definition of new community as outlined in Chapter I. No strictly retirement or dormitory towns were included and the community had to be relatively balanced in terms of various land uses. In those cases where construction had not yet commenced, it was necessary to rely on the intended objectives of the new town proposal.
A second factor concerned the size aspect. In this regard, the somewhat arbitrary figure of 2500 acres\(^1\) was selected as the minimum site area for the new town. Any community with a size below this cut-off point was not included in the survey. This is not to imply, of course, that the scale of the development should be the sole criterion that determines if a project attains new community status. It does, however, help to ensure that a sufficient population can be accommodated to make the range of facilities necessary for a balanced community feasible.

Of the twelve new towns receiving questionnaires, there was a wide range in their site areas which varied from 2700 acres at Foster City to 88,000 acres at Irvine Ranch. This range was intentional in order to see if the locational criteria applied differed with the size of the development involved.

Similarly, as a third factor, a specific effort was made to draw upon new town experience in both Canada and the United States in order to determine if locational priorities were the same in the two countries.

A fourth consideration in selecting those towns to be covered in the survey relates to the land ownership variable. As noted earlier, the large majority of new communities in California are currently being built on land that has been in the hands of one family or land company for a substantial number of years. Prior ownership of the property therefore became the ultimate locational criterion for the development. In such cases, some difficulty was experienced in drafting a questionnaire which would apply to a developer that had to select a site and assemble the land and, at the same time, not be confusing to a respondent who has owned the site for many years. In other words,

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\(^1\) This figure of 2500 acres does have support from a number of sources. The General Plan for Howard County Maryland, for example, stipulates that no new community can be built on a site smaller than 2500 acres. In addition, Eichler and Kaplan have used this figure as the minimum size below which not even the smallest of the new communities are found. See *The Community Builders*, p. 23.
in the former situation there would be specific criteria that would actually be determining the location for the project. In the latter instance, however, it would be a question of what factors were important in the decision to develop the site at a particular time, rather than what factors were significant in selecting the actual site.

Given this potential lack of clarity in the questionnaire, it was therefore decided to limit the number of towns in the survey that would fall into the prior ownership class. Two such communities were included, namely Litchfield Park and Irvine Ranch. If the response was adequate from these two, it was pre-determined that the questionnaire sample would then be expanded to include more towns of this type. As it turned out, however, the response did not justify an enlarged sample. In the case of Litchfield Park, the anticipated confusion did arise. Although it was specifically stated in a covering letter that the questionnaire should be treated in terms of the relative importance of the locational factors which prompted the development of the site as a new town at a particular time (i.e. the possible recent construction of a freeway), there was still some inconsistency in answering the questions in this vein. In the case of Irvine Ranch, a letter was received from the Irvine Company indicating that it would be best to get in touch with the many individual developers involved in construction on various portions of the huge site. In other words, Irvine Ranch could amount to a full study in itself. This was regarded as a portent of possible results to be gained from similar large ranch developments in California. Such results were not likely to be beneficial without the advantage of a personal interview. In effect, therefore, the survey sample is very much biased against those new town projects where prior ownership of the
land has been a factor in their location. This variable would rank much higher in importance than will be indicated if all new community developments had been included in the study.

A final factor influencing the questionnaire sample concerns the issue of available data. In this instance, the names and addresses of the developers in question were difficult to obtain. Those not obtained obviously could not be included in the survey.

II. RELATIVE IMPORTANCE OF LOCATIONAL CRITERIA

In this section it is proposed to outline new town locational criteria in the order of importance established by the results of the questionnaire. Table III lists the new communities that responded to the survey and presents a few pertinent facts in regard to their size, proposed population and distance from the nearest large city. Table IV provides a concise picture of the results of summary question (29) of the questionnaire in which each developer was asked to rate the indicated variables on the basis of their relative importance in determining the location for the new town development. Litchfield Park was not included in this particular case because the respondent failed to reply to question 29. Table V extends this analysis one step further by totaling the values given to each criterion in a manner that will allow a comparison of new town experience in Canada and the United States. Since there are seven communities involved, the indicated values merely represent the score attained by each locational variable out of a possible perfect score of 35. Land costs, for example, achieved 30 points out of a possible 35 points.

2 By rights, this study should not attempt to compare new town experience in Canada and the United States. Rather, it should be a regional comparison because the new town sample is essentially drawn from three specific regions which may not necessarily be indicative of the national picture. The three regions in question are the Bay Area, the Baltimore-Washington region and the metropolitan Toronto region. Reference will continue to be made to the two countries, however, but should be viewed in this light.
# TABLE III

**A FEW FACTS ON PRIVATE ENTERPRISE NEW COMMUNITIES UNDER SPECIFIC STUDY**

<table>
<thead>
<tr>
<th>New Town</th>
<th>Year Announced</th>
<th>Acreage</th>
<th>Distance from Nearest Large City</th>
<th>Eventual Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia, Maryland.</td>
<td>1963</td>
<td>15,600</td>
<td>15 miles S.W. of Baltimore; 23 miles N.E. of Washington.</td>
<td>125,000 (by 1980)</td>
</tr>
<tr>
<td>Reston, Virginia.</td>
<td>1963</td>
<td>7,100</td>
<td>18 miles west of Washington.</td>
<td>75,000 (by 1980)</td>
</tr>
<tr>
<td>El Dorado Hills, California.</td>
<td>1961</td>
<td>9,800</td>
<td>26 miles east of Sacramento.</td>
<td>75,000 (by 1985)</td>
</tr>
<tr>
<td>Foster City, California.</td>
<td>1961</td>
<td>2,700</td>
<td>15 miles south of San Francisco.</td>
<td>35,000</td>
</tr>
<tr>
<td>Litchfield Park, Arizona.</td>
<td>1964</td>
<td>12,100</td>
<td>18 miles west of Phoenix.</td>
<td>75,000 - 100,000</td>
</tr>
<tr>
<td>Bramalea, Ontario.</td>
<td>1956</td>
<td>8,000</td>
<td>16 miles N.W. of Toronto.</td>
<td>100,000</td>
</tr>
<tr>
<td>Century City, Ontario.</td>
<td>1968</td>
<td>3,200 (1st. phase)</td>
<td>25 miles N.E. of Toronto.</td>
<td>32,000</td>
</tr>
<tr>
<td>Centennial City, Ontario.</td>
<td>1968</td>
<td>5,000 - 6,000 (an est. only)</td>
<td>20 miles N.W. of Toronto.</td>
<td>50,000 - 80,000</td>
</tr>
<tr>
<td>Description</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Rate and Direction of Urban Growth</td>
<td>F</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Assembly</td>
<td>G</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Costs</td>
<td>C</td>
<td></td>
<td>DH</td>
<td></td>
</tr>
<tr>
<td>Close to major highway</td>
<td>C</td>
<td></td>
<td>ABFG</td>
<td>DH</td>
</tr>
<tr>
<td>Close to freeway</td>
<td>C</td>
<td>ABFGH</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Site in good location to attract industry</td>
<td>C</td>
<td></td>
<td>BDGH</td>
<td>AF</td>
</tr>
<tr>
<td>Ground water supply</td>
<td>D</td>
<td></td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>Site conditions such as topography, bedrock, drainage</td>
<td>AC</td>
<td>DF</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Site suitable for recreation development</td>
<td>F</td>
<td></td>
<td>BCDGH</td>
<td>A</td>
</tr>
<tr>
<td>Close to railway</td>
<td>ABC</td>
<td>G</td>
<td>DF</td>
<td>H</td>
</tr>
<tr>
<td>Close to airport</td>
<td>ACG</td>
<td>B</td>
<td>H</td>
<td>F</td>
</tr>
<tr>
<td>Local public regulations</td>
<td>F</td>
<td>ACH</td>
<td>BD</td>
<td>G</td>
</tr>
<tr>
<td>Local public opinion</td>
<td>ACFH</td>
<td>DG</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Prior ownership of land</td>
<td>ADGH</td>
<td>C</td>
<td>B</td>
<td>F</td>
</tr>
<tr>
<td>Site designated as new town location on overall plan</td>
<td>CDGHF</td>
<td>A</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

**INDEX**

A - Columbia  
B - Reston  
C - El Dorado Hills  
D - Foster City  
F - Bramalea  
G - Century City  
H - Centennial City

**Rating Scale**

5 Indicates criterion was highly important in determining the location for the new town.  
0 Indicates it was not even considered in site selection process.  
1 to 4 ratings, in that order, indicate increasing importance.
TABLE V

RANKING OF LOCATIONAL CRITERIA OF NEW COMMUNITIES IN CANADA AND THE UNITED STATES ON THE BASIS OF TOTAL SCORE INDICATED ON THE 0 - 5 SCALE

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Score</th>
<th>U.S. New Towns</th>
<th></th>
<th>Canadian New Towns</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg. Score</td>
<td>Score</td>
<td>Per Town</td>
<td>Rank</td>
<td>Avg. Score</td>
</tr>
<tr>
<td>Rate and direction of urban growth</td>
<td>32</td>
<td>19</td>
<td>4.7</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Land Assembly</td>
<td>32</td>
<td>20</td>
<td>5.0</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Land Costs</td>
<td>30</td>
<td>16</td>
<td>4.0</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Close to major highway</td>
<td>29</td>
<td>16</td>
<td>4.0</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Close to freeway</td>
<td>28</td>
<td>16</td>
<td>4.0</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Site in good location to attract industry</td>
<td>28</td>
<td>15</td>
<td>3.7</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Ground water supply</td>
<td>25</td>
<td>10</td>
<td>2.5</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Site conditions such as topography, bedrock, drainage</td>
<td>24</td>
<td>11</td>
<td>2.7</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Site suitable for recreation development</td>
<td>21</td>
<td>14</td>
<td>3.5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Close to railway</td>
<td>16</td>
<td>4</td>
<td>1.0</td>
<td>14.5</td>
<td>12</td>
</tr>
<tr>
<td>Close to airport</td>
<td>14</td>
<td>7</td>
<td>1.7</td>
<td>11.5</td>
<td>7</td>
</tr>
<tr>
<td>Local public regulations</td>
<td>13</td>
<td>8</td>
<td>2.0</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Local public opinion</td>
<td>10</td>
<td>7</td>
<td>1.7</td>
<td>11.5</td>
<td>3</td>
</tr>
<tr>
<td>Prior ownership of land</td>
<td>8</td>
<td>4</td>
<td>1.0</td>
<td>14.5</td>
<td>4</td>
</tr>
<tr>
<td>Site designated as new town location</td>
<td>6</td>
<td>6</td>
<td>1.5</td>
<td>13</td>
<td>0</td>
</tr>
</tbody>
</table>

*The criteria scores were arrived at by multiplying the number of towns that were listed under each rating on the 0 - 5 scale by the particular weight given and then totalling the figures under each criterion.
On this basis, therefore, and in order to give some semblance of organization to the following section, the locational variables in question will be grouped and discussed according to their obtained scores. To this end, an arbitrary classification has been adopted that bears no statistical significance whatsoever. Those criteria receiving over 75% of the possible points will be regarded as highly important locational determinants of new communities. Those receiving less than 75% but more than 50% will be classified as important, while those variables obtaining a score between 25% and 50% will be regarded as only slightly important. A score of under 25% will indicate that the variable is generally of no importance.

Criteria Regarded as Highly Important in the Location of Privately Developed New Communities. Tables IV and V reveal that the most significant factors in determining the sites for the seven new towns under study have been, in their order of importance, (1) the rate and direction of urban (population) growth, (2) land assembly, (3) land costs, (4) access to a major highway, (5) access to a freeway and (6) the potential of the location to attract industry. This order is slightly altered when viewed in the context of the two separate countries. In the United States, land assembly increases very slightly in importance while land costs assume a position of equal importance with accessibility to highway and freeway. In contrast, the developers of the Canadian satellites outside of Toronto have indicated that land assembly is not as significant as land costs, highway access and the attraction of industry.

Generally speaking, the ratings given these top six variables in Table IV have resulted in a reasonably noticeable pattern. The majority of respondents have given a score of 5 to the rate and direction of urban growth, land assembly and land costs, while the latter three criteria for the most part
have received a slightly lower rating of 4. El Dorado Hills emerges as a community with locational determinants that are somewhat inconsistent with the overall pattern.

(1) Rate and Direction of Urban Growth. This variable, along with land assembly, received the highest rating of any of the factors determining the location of the new town developments. Of the seven respondents, only El Dorado Hills and Bramalea, with values of 4 and 3 respectively, were given less than the highest possible rating of 5.

The relative importance of this locational determinant is nowhere more evident than in the case of Columbia, located 15 miles from Baltimore and 23 miles from Washington. To quote William E. Finley, Vice-President of the Rouse Company, the site for the new town had to be located in the magnetic field of a growing metropolitan area and it also had to be located where the choice was not whether to build or not to build. That is, the area would eventually develop whether the Columbia interests selected the site or not.

In this regard, James Rouse did indeed choose his development site carefully. In the entire United States no two cities are so big and so close together as Baltimore and Washington. From centre to centre they are 37 miles apart, while the modern beltways (see Map 2) which ring both urban complexes are only 20 miles apart. The combined population of the metropolitan areas is 4.5 million and it is one of the fastest growing regions in the country.

Columbia, by seeking to draw from two giant urban markets, is perhaps the ultimate example of a new community locating with due regard for the site


4 Erin Mills, which did not return a questionnaire, is located in the growth corridor between Toronto and Hamilton, a situation very much comparable to that of Columbia.
selection variable under discussion. The other new towns under study have also expressed an obvious reliance on the rate and direction of urban growth, but there has certainly been no unanimity as to how this criterion should be interpreted. On the one hand, for example, such new communities as Foster City and Centennial City are very much located in future centres of gravity for their regions. The former is situated in the rapidly expanding San Francisco-Palo Alto growth corridor while the latter lies in the path of future metropolitan Toronto development to the northwest and along the Toronto-Detroit axis. On the other hand, communities such as Reston and Century City are not as advantageously located, even though they were also given a rating of 5. Reston, in contrast to Columbia, by locating due east of Dulles International Airport, in effect has situated itself between Washington and nowhere. Urban activity at both ends of the axis would have promoted the flow of goods and people between the two cities and made the Reston site more attractive to residents and industry. In the case of Century City, if growth in the Toronto region is tending towards the west and northwest, it is difficult to visualize how a new community located 25 miles northeast of the city could adequately be taking into account the direction of urban growth. The developers may well be anticipating a new regional plan for this portion of the Golden Horseshoe which would advocate the construction of new corridor cities not only to the north and west of Toronto, but also to the northeast.5

One limitation that should be pointed out in regard to this locational criterion is the fact that the questionnaire, unfortunately, did not separate the rate of growth from the direction of growth. The rate of growth of the urban area is an obvious factor if there is to be an available market and,

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5 See Ontario Department of Municipal Affairs, Choices for a Growing Region, (Metropolitan Toronto and Region Transportation Study, Toronto; Nov. 1967), pp. 43-48.
alone, could have been responsible for the high rating. The direction of growth may not have been as important and could therefore account for the seeming inconsistency outlined above in the case of such communities as Century City.

(ii) Land Assembly. As previously mentioned, land assembly, along with the rate and direction of urban growth, received the highest rating from the respondents of any of the locational determinants. Only two Canadian communities, namely Century City and Centennial City, failed to realize a maximum score of 5. This is perhaps indicative of the fact that the problems of urban sprawl and land speculation in the Toronto area, which invariably lead to difficulties in land assembly, have not yet progressed to the advanced state now evident in American metropolitan regions.

Including Litchfield Park, three of the eight respondents indicated that the new town site prior to land purchase was in the hands of one owner. Foster City was formerly a dairy ranch owned by the Leslie Salt Company and the Schillings Estate. Litchfield Park has been held by the Goodyear Tire and Rubber Company since 1916. Reston, as indicated in Chapter II, was purchased from one private landowner.

Of the remaining five new communities replying to the questionnaire, the sites for El Dorado Hills and the three Toronto satellites could be described as having a small number of people owning large acreages of land. Only the Columbia developers had to go through the difficult experience of purchasing small pieces of property from a large number of owners. This information is significant in two respects. First, it points out a continual dilemma facing private new town developers. That is, a site such as Columbia which is most appropriate in terms of regional growth factors and the available market is
precisely the location where land will likely be divided into the smallest parcels. As a second point, however, the Columbia experience also indicates that (1) such land can in fact be assembled at a reasonable cost, provided that the proper approach is taken, and (2) that large land-holdings with few owners need not necessarily dictate the location of a privately developed new town.

The number of original owners involved is largely indicative of the degree of difficulty experienced by the developer in the land assembly. On the basis of the questionnaire responses, those developers involved with single owner sites considered the problem of land assembly not difficult. Columbia, with 165 original property owners, and El Dorado Hills, with 17, both considered it to be slightly difficult. Only Century City indicated the task of assembling the land under one ownership to be highly difficult. Since this same proposed community gave only a rating of 3 to land assembly as a determinant to the town's location it can be assumed that the availability of the land did not really enter into the selection of the site. Rather, the town was located on the basis of what the developer regarded as more important criteria, so that when the job of assembling the land was undertaken it proved to be somewhat of a problem.

(iii) Land Costs. Rated slightly less important than the first two locational criteria was the question of land costs. Of the seven communities, four received a rating of 5 for land costs and two were given a rating of 4. In commenting on the low value of 2 given to El Dorado Hills, Richard Miller, the project's land planner, replied in a manner that might have been expected from
some of the other communities as well. He explained that the cost factor enters into the picture primarily because it discourages land assembly of high priced land on the immediate fringe. However, in the more rural areas further away from the central city, land costs then become a secondary factor relative to land assembly.

The cost of land was not available for each community. It is known, however, that the average land prices for Columbia and Reston were $1450 and $1900 per acre respectively. These figures along with those paid for Bramalea and Century City were regarded by the developers to be highly reasonable. In contrast, the price of acquisition for Foster City land was substantially higher, amounting in 1960 to $12 million or roughly $4400 per acre. Even so, this figure was not considered unreasonable by the developers, probably for two reasons. First, the town site was relatively small compared to other new community developments. If the assembly of land involved had been in the order of 15,000 acres, like Columbia, a price of $4000-$5000 per acre would have been out of the question. Second, this former dairy ranch represented one of the few remaining large landholdings so close to the San Francisco market. There was no question, therefore, that the project would make money and attract industry. According to T. Jack Foster Jr. who responded to the questionnaire, "the size of the vacant land in the midst of a heavily built-up area virtually dictated its use. There was no other meaningful choice."

(iv) Road Connections. In assessing those variables regarded by the respondents to be the fourth and fifth most important locational criteria, namely access to a major highway and access to a freeway, it is evident that such facilities were considered to go hand in hand. Except in one instance, all of the developers consistently applied a similar rating to both highway and
freeway connections. The majority of them were also adamant in their opinion of the relative importance of these two criteria, with the most frequently mentioned value being 4. Such results would appear to imply that a new community should not be located solely on the basis of an available freeway to the central city. There must also be good regional highway communications.

The importance of these combined facilities is well illustrated in the case of the American new towns. Including Litchfield Park, of the five communities only Reston is not served by both types of road connections. In fact, neither a freeway nor an accessible major highway pass through the site. The nearest highway is two miles. The Dulles Airport Access Highway leading from the Capital Beltway to the airport cuts the site in half but no interchanges have been provided for the Reston residents. This lack of good road communications has been a continual source of difficulty for the developers primarily because it was not given the proper emphasis when the new town site was first selected. This can perhaps be attributed to two factors. First, Robert Simon, the original developer probably did not want to pass up the opportunity to purchase roughly 7,000 acres of land from one owner and likely de-emphasized the importance of some of the other variables. Second, Simon himself was obviously interested in the architectural aspects of the new community and his desire to attract a certain segment of the population might have led him to believe that, irrespective of good road access, people would still be drawn to Reston's unique environment. This mistaken assumption has now been recognized by the developers, but rather belatedly. According to the results of the questionnaire, the Reston respondent indicated that if the process of selecting the site for the new town had to be done over again, the

6 To quote Simon, "Our success will not depend on catering to the beer drinker who is content to sit and watch his T.V. set, but rather to people who have a wide range of active interests." See R. Murray, "New Towns for America", House and Home, Feb. 1964, p. 126.
major change made, above all else, would be the provision of a better transpor­
tation network.

Of those communities included in the study, Columbia and Foster City
(Maps 2 and 4) are best integrated with existing or proposed road facilities.
Foster City is located at the junction of two major freeways and has immediate
access to the East Bay area via the San Mateo Bridge. This bridge, according
to the returned questionnaire, was a significant factor in the developer's
decision to build the new community. The Columbia developers, on the other
hand, more so than any of the other new town builders, went to great pains to
locate at a site that would benefit from new highway construction. Prior to
land purchase driving time from the proposed new town to Washington was 40
minutes and to Baltimore 30 minutes. However, with the completion of major
improvements and new highways (Map 2) in approved state and federal programs,
fourteen additional lanes of expressway will serve the new community. When
these additions are completed, downtown Washington will be 30 minutes away,
Baltimore 20 minutes distance and Friendship Airport only 15 minutes in driving
time.

(v) Potential of the Site to Attract Industry. The relatively high rating
given this locational variable by the questionnaire respondents would appear to
dispute the argument that private new town developers are not concerned with
building a community that attains some and preferably a high degree of self-
sufficiency. Granted, the mere voicing of such an objective in the selection
of a site does not necessarily guarantee that industrial firms will be drawn
to that location. Nevertheless, there does appear to be some relationship

7 Future plans entailed enlargement of the bridge and construction
of a freeway approach.
between those communities giving a high score for industrial attraction and those communities that are well on the way to achieving some semblance of a balanced land use pattern. Bramalea, for example, received a rating of 5 and it has managed to develop the largest industrial base of any of the towns under study. No doubt, much emphasis in this regard must be placed on the agreement with the municipality that stipulates that for every house built, 1,000 sq.ft. of industrial space must also be provided. On the other hand, in the case of El Dorado Hills, the low rating of 2 for this variable is now reflected in the generally unsuccessful attempts to induce industry to locate in the community.

As with the previous criteria discussed in this section, the interpretation of what is potentially a good site for industry would seem to vary amongst developers. For example, of the six respondents indicating a score of 4 or 5 in Table IV, neither Columbia nor Reston considered railway or airport proximity to be of any significance in selecting the new town site. In contrast, Foster City and the metropolitan Toronto new communities were generally agreed that these criteria should be important factors in the location of the new town and the attraction of industry.

Columbia's disregard of airport facilities in choosing the new town site is rather surprising in view of a recent survey of scientifically oriented firms locating in or considering the Washington-Baltimore area. This study revealed that a major factor influencing industrial location in the region was the availability of a commercial airport within a half-hour's commuting distance.

9 As of May, 1967, the total work force in Bramalea's 44 industries totalled 6,815, half of which live in Brampton or Bramalea. See Bramalea Consolidated Developments Ltd., Bramalea, Canada's First Suburban City.
of the proposed plant. As it turns out, however, Columbia is situated within 10 miles of Baltimore's Friendship Airport and one would suspect that it was probably not necessary to stress the airport criterion in selecting the original town site because once the decision to locate in the growth corridor was made, reasonable access to an airport was automatically ensured from any point in the corridor.

It is in regard to a second finding of the above survey, however, that Columbia's location is particularly advantageous. In this respect, the study disclosed that plant location decisions were also being made on the basis of an adequate provision of employee housing in communities having active cultural, educational and civic activities. This type of desired community fits the description of Columbia. In effect, the locational requirements set by both industry and the new town developer could be mutually satisfied by building the town in the said corridor. On the one hand, Columbia would help to fulfill the rather sophisticated housing demands of the skilled employment working in the region. On the other hand, by locating the new community in a development corridor with an already existing and strongly growing industrial base, there would be a greater chance of attracting new firms to the community more quickly. In 1966, for example, there were more than 65,000 people then employed in primary industries and agencies in the area between Baltimore and Washington. These plants included Westinghouse, IBM, General Motors, and W.R. Grace, as well as a major research establishments such as the Johns Hopkins Applied Physics Laboratory, the Goddard Space Flight Centre, the Naval Ordinance Laboratory, the National Security Agency and the Beltsville Agricultural Research Centre.

To a certain extent the new communities of Bramalea and El Dorado Hills have been located on the basis of similar assumptions. In the case of Bramalea, the developers were partially attracted to the site because of its close proximity to the growing Avro Plant at Malton Airport and the housing market that its employees would create. Similarly, a major factor in the decision to develop El Dorado Hills was the proximity of large employment generators such as Aerojet General and Douglas Aircraft. In both situations a heavy reduction in the initially anticipated employment base occurred because of the demise of the Avro Arrow and the abrogation of 5,000 jobs at Aerojet General. These events adversely affected the projected development in both communities. But Bramalea has been more successful in overcoming such a major setback because, to coin a well known phrase, "all its eggs were not placed in one basket". It is situated in the Toronto-Detroit axis and is close enough to the metropolitan area to tap into Toronto's housing market. Railway lines traverse the community's industrial park. Toronto harbour is only 35 minutes driving time away. Good roads facilities skirting the central city make the town more accessible by truck than Toronto itself. Finally, the availability of an international airport within 4 miles of the new town has provided a rapidly expanding regional employment base which varies in scope and is not oriented strictly to the aircraft industry.

El Dorado Hills, on the other hand, placed too heavy a reliance on a market created by one specific type of job opportunity. The community was located 8 miles from the large aircraft complex and might have been ideal if Aerojet General had not drastically curtailed its operations. When this reduction took place, there were no alternative employment sources on which to draw...
and the new town found itself in an essentially rural area at a considerable distance from the central city. The freeway had not yet been completed and the site was not immediately serviced with rail and air transport. Thus, it was difficult to attract industry to the new town itself.

**Criteria Regarded as Important in the Location of Privately Developed New Communities.** On the basis of the classification outlined earlier in this chapter, the criteria regarded as important and to be discussed in this subsection include those that attained a total score in Table V of less than 75% but more than 50% of a possible maximum of 35 points. There are only three variables falling within this group, namely ground water supply, site conditions related to topography, subsoil and drainage, and the appropriateness of the site for recreation development. The first two criteria will be discussed below under the combined heading of physical characteristics of the site.

Of the three variables, the third shows the most consistent pattern. In assessing its relative importance, five of the seven respondents were in agreement on a score of 3. In contrast, there was little agreement on the question of site conditions. Ratings received from the developers ranged anywhere from 2 to 5, with no more than two communities listed under any ratings. There would also appear to be some relationship between the score received and the region in which the new community is located. For example, the Canadian developers responsible for the construction of the metropolitan Toronto new towns showed a particular concern for the availability of ground water in locating the new town. But with the American new communities, greater emphasis was placed on the suitability of the site for recreation development than on site conditions.
(i) **Physical Characteristics of the Site.** Generally speaking, it can be said that in selecting the site for a new town a developer will place greater stress on the availability of water than on other site factors such as topography or soils. This reasoning is based on the fact that, although there is essentially no difference in the total scores of the two criteria, four of the seven respondents gave the highest rating of 5 to water supply.

Of the other physical characteristics of the site, there was by no means a consensus as to what factors would be important in the future development of the town. The most frequently mentioned variable was topography. Columbia and Foster City also regarded soil conditions as being significant. In no instance was the underlying bedrock of the site considered to be an important factor. In the case of El Dorado Hills, it was specifically pointed out by the respondent that the physical conditions of the site in no way determined the general location of the new town development. More important factors such as land assembly took precedence.

The generally high rating given to the physical characteristics of the site by Canadian new town developers is difficult to explain. It may very well be that the high standard of water and sewerage services demanded by the provincial government has had an influence. The extension of such facilities, for example, must meet the approval of the Ontario Water Resources Commission. One of its current policies in regard to the Toronto region is that all development should take place at a scale and in a pattern that facilitates the use of the Lake Ontario watershed, with sewage treatment occurring at a limited number of major plants at Lake Ontario. This policy effectively limits the building of new towns to a distance no greater than 25 to 30 miles north of Toronto.
The impact of this policy is well illustrated in the case of Century City. According to Mr. Louis Devor of Revenue Properties Ltd., in choosing the location for the new town a circle was drawn roughly 35 miles in radius with downtown Toronto. Sites within this circle were then examined and all areas which drained northward into the resort regions and Lake Simcoe's watershed were eliminated. The developers then concentrated on picking a specific location on the basis of a number of criteria, two of which included the following: (1) the site had to be reasonably close to Lake Ontario so that the effluent from the pollution control plants could be directed to the Lake as development increased; and (2) the site should have good reserves of ground water and should be sufficiently close to Lake Ontario so that as development proceeds, the Lake may be tapped as a source.

A somewhat similar approach was adopted in locating the proposed new town of Centennial City Northwest of Toronto. In this case, the physical factors limiting the range of possible sites included the boundary of the Lake Ontario watershed, areas over 1,000 feet in elevation, areas with difficult ground conditions such as extensive marsh or the line of the Niagara Escarpment, and areas with little or no potential for sewage disposal through existing major river systems. Once these unacceptable areas were withdrawn from further consideration, it was then determined that:

"The main criteria for the selection of sites should rest largely on their relative accessibility by road and rail to the major facilities of the region, and on their adjacency to major river systems which could accommodate satisfactorily sewage disposal from the development."

12 The above information on Century City was obtained through personal correspondence with the developer, Revenue Properties Company Limited of Toronto. The letter in question was dated Feb. 14, 1969, and was received from Mr. Louis J. Devor, C.A.

In regard to the latter point the decision was eventually made to locate on the Humber River because preliminary engineering studies indicated it to be the most capable river in the region for accommodating the disposal of treated sewage.

(ii) Available Recreation Facilities. In Chapter III it was pointed out that two factors in particular would likely bear some consideration in the location of new communities, especially with the trends in increasing leisure time and recreation demand. First, there is the question of selecting a site that is suitable for the provision of recreation facilities within the new town itself. Such facilities not only meet a large part of the recreational needs of the residents but they also add to the total environmental concept of the community through the provision of much open space and amenity areas. This in turn, adds to the market potential of the development. Second, with increasing traffic congestion, it is entirely possible that new communities might be situated so that they are more easily accessible to the recreational hinterland of the metropolitan areas. Residents of the new town would then not have to face, at least to the same extent, the heavy traffic pressure exerted by week-end recreation travellers on existing highways.

The results of the very limited questionnaire survey obviously cannot substantiate the above points with any degree of reasonable preciseness. Nevertheless, the developer's replies would seem to suggest at least an increasing awareness of the impact of the new leisure age. Of the seven respondents, for example, only Bramalea, with its site selected prior to the 1960's, indicated that the potential of the town's location for recreational development was of almost no significance as a site determinant. Columbia, in contrast, received a high rating of 5 while the remaining towns all were given a rating of 3.
Of those recreation facilities available at the site prior to land purchase, an existing body of water was the most frequently mentioned. In the case of El Dorado Hills, the developer indicated that the presence of Lake Folsom was a significant factor in choosing the location for the new town development. Similarly, much is made in the sales brochures of Foster City's proximity to San Francisco Bay and the fact that many homes have been built on man-made lagoons which allow swimming and sailing. Century City has a number of small lakes included on its site. Columbia and Reston, although not endowed with natural bodies of water, have been quick to incorporate man-made lakes into their community plans.

In two instances some reference was made to selecting a location for the new community that would be more readily accessible to the recreational hinterland of the metropolitan area. The developers of El Dorado Hills, for example, in comparing their project with Sunset, a second new community located north of Sacramento, stressed that their development would be situated closer to the Sierra resort areas such as Lake Tahoe. Meanwhile, Marshall, Macklin and Monaghan Limited, the planning consultants who prepared a feasibility report on Centennial City, have alluded to the proximity of the new town to three major Conservation Areas in the region, and to the closer distance to the summer cottage developments to the north. This is in keeping with a provincial goal for accessibility in the region which states, among other things, that residential communities should be located so that they are accessible to the more distant recreational hinterland without fatiguing in-city travel. In both cases, however, it would appear that reference has been made to this

15 Ontario Department of Municipal Affairs, op. cit., p. 23.
variable more in passing and only as a means of further substantiating the appropriateness of a site that has previously been determined. It is doubtful if it would have wielded much weight as a locational criterion in itself, but the fact that lip service was paid to it at this stage is perhaps an indication of its future importance.

Criteria Regarded as Slightly Important in the Location of Privately Developed New Communities. The criteria listed in this group obtained a total score of 25% to 50% of a possible 35 points in Table V. They include in their order of relative importance, proximity to a railway, proximity to an airport, local public regulations in the area in which the new town is to be located, and local public opinion in the same area. The latter two variables will be discussed below under the heading of political factors.

The ratings applied to these four criteria vary considerably. The only significant concentration of similar opinions occurs at the lower end of the 0 - 5 scale. Three of the seven respondents indicated that air and rail transport were not even considered in the site selection process. Four of seven had a similar view of local public opinion.

(i) Rail Transport. On the basis of the survey results it is safe to assume that if it were not for the replies from the metropolitan Toronto new town developers, this locational criterion would have almost no significance whatsoever in the selection of sites for new communities. Naturally, therefore, the question arises as to why this variable should have such emphasis in the Toronto region when three of the four American respondents did not even consider it when locating their new towns.

Bramalea's interest in this regard can be attributed primarily to its
concern right from the beginning with attracting firms to increase its industrial assessment. At the time of its inception in the 1950s there was little talk of the commuter rail system that is being discussed today. In contrast, it is in anticipation of this very latter development that the recent proposals for Centennial and Century Cities have emphasized a location adjacent to an existing railway right-of-way.

In locating these two new towns on potential rail commuter lines the developers are no doubt considering the Toronto region's past performance in regard to public transit service and are attempting to integrate the site for the new community with the planning strategy of the region. In the past, Toronto's role as a leader in North American subway construction has been well acknowledged. More recently, this system has been augmented by GO Transit. There is every reason to suggest therefore that the other rail lines which have been judged technically feasible for rail commuter service by the Metropolitan Toronto and Area Transportation Study will also eventually be incorporated into the same system.

(ii) Air Transport. In Chapter III it was suggested that with the greater reliance on air freight by many industries and with the emergence of the airport as a regional employment generator, new town developers would be increasingly conscious of the advantages of locating new a large existing airport. The results of the questionnaire support this argument, but only in some cases since the developers disagreed on the extent of its importance. Columbia, El Dorado Hills and Century City, for example, considered the variable to be of no importance whatsoever in locating the new town. Foster City and Bramalea, on the other hand, gave high ratings of 5 and 4 respectively for proximity to an airport. The latter's initial reliance on the Avro Plant at Malton Airport has
already been referred to and need not be repeated. In the case of the former, although an equal rating of 5 was given to both air and road facilities, the developer provided an additional comment that the location of San Francisco International Airport within ten minutes drive of the new town was considered to be slightly more significant.

(iii) **Political Factors.** On the whole, the combined influence of local government regulations and local public opinion in determining the location of the new community was not as important as originally anticipated. The low total score given to each of these variables in Table V can be attributed to the fact that four of the communities had little difficulty in getting the necessary changes made in local government restrictions and their intended plans approved. As a result, a very low rating of 1 or 0 was given.

Of the four above mentioned communities, the problems experienced in this regard were basically similar. Columbia and El Dorado Hills, for example, were both concerned in obtaining their preferred type of zoning. In the case of Bramalea, the new town represented at the time of first construction the only urban type of development in an entirely rural municipality. There were no building by-laws in existence, therefore, that envisaged the sort of sophisticated residential and industrial buildings planned.

In the cases of Foster City, Reston and Century City, however, considerably higher ratings of 3 and 4 for political factors have been indicated. This no doubt reflects the degree of difficulty encountered in getting the overall plans for the community accepted. The original proposal for Foster City involved a much higher proportion of residential development. A more balanced plan was introduced only after the first submission was met with strong resistance from the county officials and local citizens who feared increased taxes. Since the
site was located in a low-lying area adjacent to San Francisco Bay there was also some difference of opinion with the county engineer as to what elevation the filled ground was to be brought. In the case of Century City, the respondent expressed the major problem as being a hesitancy on the part of the municipality to approve the project because the local citizens were afraid that the development was too large and the local government would not be able to control it. Before Reston could be built, the county zoning ordinances had to be re-written to include a special type of new town classification and a great number of variances were needed on the building codes.

The preceding discussion tends to support the stand taken in Chapter III that a developer should be careful in assessing local governmental policy and should not take a favourable response to a new town proposal for granted. The nature of the problem listed in each of the above cases was not that different, and yet, the ratings assigned to the political criteria varied considerably, depending on the specific local government situation in which each developer was involved. Both Columbia and Reston, for example, mentioned the problem of drafting new zoning ordinances but there was no agreement on the relative importance of the variables. This would suggest that perhaps Fairfax County, in which Reston is situated, was a little more hesitant to approve the proper zoning for the new town because of possible adverse public opinion.

Criteria Regarded as Not Important in the Location of Privately Developed New Communities. The remaining two locational criteria to be discussed on the basis of Tables IV and V, namely prior ownership of the land and the designation of the site as a new town in an overall plan for the area, attained less than 25% of a possible score of 35 points. Again it is emphasized, however, that such total scores represent merely the accumulative impact of the locational
variable on the seven communities under study. If individual cases were isolated, it might very well be that the relative importance of the two above criteria would be considerably increased.

(i) Prior Ownership of the Land. As mentioned earlier, the results of this questionnaire survey are not really indicative of the relative importance of this locational criterion. The rating would have been much higher if more of the California new towns that are situated on large former ranch holdings had been included.

In the questionnaire the developer was asked if the site for the new town was selected because he had prior ownership of the land and then decided to develop it as a new town. The original intention of such a question was to identify new towns such as Litchfield Park which were being built on land owned by a company or family for many years and had been used for another purpose. The replies to this question were not anticipated, although they are nonetheless revealing. Excluding Litchfield Park, none of the communities responding to the survey would fall within the group of towns for which the question was first formulated. Yet, three of the communities, namely Bramalea, Reston and El Dorado Hills, received respective values of 4, 3 and 1 for prior ownership of the land. This would suggest that at the time the land was first assembled the developers had not yet decided to build a new community.

(ii) Site Designated as the Location for a New Town in an Overall Plan for the Area. The results of the questionnaire generally substantiate the view taken in Chapter III that there has been little guidance from public agencies in the location of new communities. This problem will be discussed in greater detail in Appendix C of this study. At this stage, suffice it to say that of the seven respondents, only Reston and Columbia indicated that new towns had
been included in an overall plan for the area. In both cases, such plans had been drafted at a broad regional scale but in neither instance did the respective county plans envisage new towns. Foster City and Bramalea also mentioned that a master plan had been prepared for the county or municipality in question. Changes were then made to these master plans so that the new community proposal could be accommodated after the land had been assembled.

El Dorado Hills, Century City and Centennial City are located in areas where no overall plan of any type was in effect. Since these communities are the furthest away from the metropolitan area of any of the new towns under study, the point made earlier that planning controls are less in evidence with increasing distance from the central city would appear to be credible.

The wide disparity in the rating of relative importance given this variable by Reston and Columbia would suggest a possible misinterpretation of the question. An additional comment provided by the Reston respondent in question 24 of the questionnaire would appear to support this reasoning. At that point it was stressed that prior to the beginning of the new town development, the existence of a metropolitan area plan was only slightly significant in choosing the site for the new community. It was only after the initial development that it became highly significant, probably because the county plan's new town district zoning and the master plan of the community itself were required to guide future construction. In effect, therefore, the rating of 5 given to the overall plan variable by Reston in Table IV is likely too high.

It should be more similar to the score attained by Columbia if it is to be more in keeping with the original intention of the question.

(iii) Other Locational Factors. Questions in regard to other criteria mentioned in Chapter III, such as the avoidance of good agricultural land and the issue of locating on a partly developed site or immediately adjacent to an existing town, were not specifically posed in the questionnaire. These omissions should be regarded as errors in the questionnaire. It was possible, however, to insert answers to both locational variables in question 25 since ample space was provided to discuss additional criteria that might not have been dealt with previously in the questionnaire.

In only one instance was there any reference to the above-mentioned criteria. In the feasibility study prepared by the planning consultants for Centennial City, areas of high agricultural value were first considered but then eventually eliminated as a factor limiting the location of the new town. The reason given was that all the sites being surveyed within the defined region were generally of high agricultural value and the only few areas of low value were the very ones where building conditions were poor.17

III. REVIEW OF STUDY HYPOTHESIS

In Chapter I, as an hypothesis to direct the study, it was suggested that the rate and direction of urban growth, land costs, land assembly, freeway accessibility and government restrictions were the most important criteria influencing the location of privately developed new communities. To test this hypothesis, a questionnaire was forwarded to twelve new town developers, eight of which were returned.

The survey results allowed one to assess the relative importance of fifteen variables in determining the location of seven of the eight communities. Of these fifteen criteria, six received over 75% of a possible total of 35 points. In their order of relative importance, the six locational variables were (1) the rate and direction or urban growth, (2) land assembly, (3) land costs, (4) proximity to a major highway, (5) proximity to a freeway, and (6) the potential of the site to attract industry.

The results of this small sample of communities are by no means conclusive and the survey should be treated merely as a pilot study. Nevertheless, there would appear to be some basis for accepting the hypothesis, but in a slightly modified form. In this regard, government restrictions were not nearly as important as originally anticipated and should be deleted from the hypothesis. Good highways connections, on the other hand, were found to be just as significant as access to a freeway and should be included. Finally, it should be emphasized that the hypothesis reflects the total or overall picture of the sample communities and that the relative importance of the listed criteria may vary in individual cases.

IV. CHAPTER SUMMARY

The purpose of this chapter has been to determine the relative importance of the locational criteria identified in Chapter III in the selection of privately developed new town sites. The questionnaire responses of eight developers, one of which only partly answered the questionnaire, largely substantiated the hypothesis outlined in Chapter I. However, because of (1) the small sample involved, (2) the chance that each developer might not be using the same standard of assessment in rating each of the criteria, and (3) the relatively little difference in the ratings received by the three top locational
criteria, no attempt should be made at this stage to say that the order of
importance of the variables listed in Table V necessarily represents the
ture situation. It does, nonetheless, give some idea as to which variables
as a group are more important than others.
CHAPTER V

PUBLIC INFLUENCES ON PRIVATE DECISIONS
TO LOCATE NEW COMMUNITIES

If the point to be made in Chapters III and IV concerned the fact that public planning for the location of new communities, to be more effective, should reflect market forces, then the aim of this chapter is to suggest that a reversal of the roles, namely that public regulations should guide the market, is equally as important if urban growth is to be encouraged in planned directions. In other words, given the data collected in Chapter IV in regard to the locational factors influencing private new town developers and assuming that the continued development of private new communities is in the public interest, how might planners use such information to help structure the future growth of the metropolitan region? How might such locational criteria be controlled or manipulated to achieve public objectives?

In the remainder of this chapter, therefore, an attempt will be made to outline and discuss a number of regulatory devices for directing land development available to the planner, and to assess the suitability and possible impact of such controls in influencing private decisions to locate new communities.

I. AVAILABLE LAND USE REGULATORY DEVICES

The existing techniques available for shaping urban development are variable. They range from attempts by planners in their advisory capacity...
to persuade public bodies and private individuals to follow a desired course of action, to regulatory measures under the police power, to the use of incentives by government to encourage private entrepreneurs to develop in a manner consistent with public objectives, to more direct government involvement through the public acquisition of land or the rights in the land. These various techniques are discussed below in no particular order of significance.

Zoning. In North America, zoning is the most widely used of the police power controls over land use patterns. It designates prior to the development of the land the types of land uses that will be permitted at specific locations. Supposedly, the purpose of such regulations is to protect the health, safety, morals and general welfare of the public. In reality, however, since such measures are enacted by local governments and usually administered by officials having only limited discretionary powers, zoning has become a highly political issue very much steeped in parochialism and centred principally around the protection of property interests. Many municipalities, in fact, do not regulate land uses because zoning by-laws are optional. But even where such controls do exist, developers frequently have little difficulty in having the necessary amendments to the by-law made. As John Reps points out, zoning controls do not involve the payment of compensation and therefore must not be so burdensome that they amount to a taking of the property rather than a mere restriction in the public interest, or else such regulations will be invalidated by court action.¹

Agricultural zoning is one method of land use control that has been advanced to help curb urban sprawl or keep certain areas of the metropolitan region clear of development. It generally allows large-lots and prohibits uses

which are incompatible with farming. The typical experience, however, in regard to this type of zoning has been that it only remains effective as long as there are no strong pressures from the market to intensify the use of the land.

Flood-plain zoning represents another possibility for shaping urban expansion. In this case, the prohibiting of buildings on mapped flood plains of streams is more apt to stand up in court because there is an obvious public purpose. The value of such a technique in planning for the location of new communities lies in the fact that if town sites are situated near to relatively large water courses, then the flood plain could be used as an effective greenbelt that would not undergo re-zoning at the first sign of development pressure.

Large-lot zoning has also been suggested by those who argue that the creation of two or three or five acre lots will postpone intensive development in the more outlying areas of the metropolitan region, thus maintaining more open space. Other than to encourage an upper income or social stratification in certain municipalities, it is difficult to see the rationale behind such an argument. The only open space that is preserved is private recreation at home. Even the low-density pattern that is established will be sufficient to bind future development. Space is consumed at a rapid rate which reduces the supply of smaller and cheaper lots. This forces developers to move even further out on the urban fringe and merely adds to the problem of sprawl.

In an effort to minimize the costs of services by concentrating development Ann Louise Strong has proposed timed-development zoning. A governmental jurisdiction is divided into several types of districts: (1) those having municipal and public services in which development is permitted, (2) those presently lacking services, but marked for the expansion of services,
in which development is postponed until the services become available, and
(3) those lacking services which are to be kept open permanently.  

One reservation about zoning is founded in the belief that it breaks
down in the face of development pressures because it is too rigid and inflexible. Economists point out that it is very much an artificial limitation of
land supply which often results in uneconomic and inefficient allocations of
urban land. More recently, however, as Charles Haar has observed, there has
been an attempt to create greater flexibility in zoning practices, particularly
through the use of licensing techniques. This method admits special uses into
special districts but only upon the discretionary grant of an application for
a permit. Similarly, the device of floating zones has come into play in
which zoning districts instead of being mapped in advance are delineated by amend­
ment upon petition or application. Marion Clawson, on the other hand, has
suggested that zoning be sold to the highest bidder. The advantages of this
technique are as follows: (1) the comparative value of one site against
others could be determined more accurately by the market mechanism than by
any planning process; (2) it would remove most political pressure on zoning
boards because competitors rather than politicians would be denying an appli­
cant the right to develop the property; (3) the value-creation process in
land would then be brought into the open; (4) competitive bids would allow
the public treasury to benefit from the land values created by public actions.  

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2 Ann Louise Strong, Open Space in the Penjerdel Region, Now or
3 Arthur D. Little Inc., (directed by John Dyckman), "The Control
of Land Development and Urbanization in California", Appendix to the Report
on Housing in California, (Governor's Advisory Commission on Housing Problems,
4 Charles M. Haar, "The Social Control of Urban Space", Cities and
5 Marion Clawson, "Why Not Sell Zoning and Rezoning?" (legally that
is), Cry California, Winter 1966-67, p. 39.
A new approach utilizing development sectors, or undeveloped areas for land uses of similar intensity, has also been proposed as an alternative to overly rigid zoning methods. Within each sector, depending on its intended intensity, certain types of land uses are encouraged but their exact locations are not fixed. Rezoning is permitted as a matter of public policy anywhere within sectors for specified zoning districts. This approach allows a greater range of site and location choices to private developers. At the same time, the fulfilment of public objectives is ensured through careful site plan review at the time of the rezoning application. High intensity development sectors, for example, have been advocated at proposed freeway interchanges to combat low intensity commercial sprawl and to ensure that ample land will be available to attract a standard of development capable of assuming nodal functions.

Compensable Regulations. In an effort to overcome the legal problems that arise with conventional zoning methods Professors Krasnowiecki and Paul of the University of Pennsylvania Law School have proposed that local governments be required to pay compensation to owners that have the value of their land reduced through open space regulations. Under this procedure, areas to be retained as open space would be mapped and the permitted land uses indicated. Compensation equal to the value of the land prior to regulation would be guaranteed upon the sale of the land. Property owners would be able to draw upon the owner's guarantee for compensation equal to the amount, if any, by which the sale price of the property fell below the owner's guarantee. The advantages of compensable regulations are that they keep land open, in private

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ownership, at low cost to local governments, with payment of compensation deferred until owners choose to sell. If the market price of the land subject to compensable regulations is higher than the owner's guarantee, there is no additional cost to the government.  

Annexation Powers. The technique of annexing adjacent unincorporated areas has long been used by municipalities to ensure more orderly growth in urban fringe areas. Usually a city, for example, will have more rigorous land use controls than the rural area outside the city limits. As a result, developments that are of a low quality or lack the necessary services will gravitate to areas outside the jurisdiction of the city. In an effort to combat this type of development which will only lead to increased costs for the city in the future, the more stringent land use regulations are extended to the areas in question through annexation.

Traditionally, most annexations have taken place in areas that have been touching on the former boundary of the city, so that growth has occurred outward in accretions of varying sizes. More recently, however, Kent Matthews has come forward with an interesting proposal that has direct relevance to new communities. His concept of "skip annexation" would allow a city to still plan for further expansion even if completely surrounded by incorporated areas. A new community could be planned on annexed territory some distance from the central city itself and still be within the jurisdiction of the city. The advantages of this proposal are that it offers a greater opportunity for the coordination of future plans of the two major participants involved, namely the central city and its probable satellite. Many new

7 Ann Louise Strong, op. cit., p. 41.
industries, for example, could be encouraged by the city to locate in the new community and housing for persons displaced by urban renewal could be insisted upon. Also, city authorities could no longer oppose the new town on the grounds that decentralization would hurt the existing tax base.

**Land Acquisition.** It has long been argued that if there is to be any certainty that the long run public interest will prevail over the shorter run market pressures for land, then municipalities must involve themselves in the purchase of property in advance of development. Such direct acquisition of land in potential development areas has been largely responsible for the appearance of the Stockholm new communities. In Canada, after observing the rational growth of Saskatoon on land that had been publicly owned since the depression years, the recent Task Force on Housing and Urban Development has advocated that, to achieve both cost efficiency and planning effectiveness, regional governments should acquire and service all or a substantial portion of the land required for urban growth within their boundaries. Even in the United States, where governmental action in land development has been consistently viewed as unfair competition, there are now indications that the courts are taking a broader view. As Whyte points out, previously a government could not buy land unless the public was going to use it actively, probably because of the high profits involved in re-sale to private developers. Now, however, the courts are holding that public purpose does not necessarily require public use.

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Generally speaking, there are two types of public land acquisition procedures. They are purchase through the exercise of the public right of eminent domain and outright purchase at the prevailing market price. The former involves the taking of private property for public use with compensation, but not with the owner's consent. Its applicability to planning for new communities has been examined by Siegel who has listed three important instances in which eminent domain might be acceptable. First, it would have to be demonstrated that there was a compelling community economic need to channel urban development into new towns. Second, there is greater chance of condemnation being upheld if the character of the land is marginal in some way, such as in need of reclamation or irrigation. Third, it must be shown that once the land has been publicly assembled and passed on to private interests for development, sufficient public control will still be retained to ensure that the public purpose of the program is fulfilled.\footnote{11 Shirley Adelson Siegel, "Memorandum on New Development Techniques", Appendix to the Report on Housing in California, (Governor's Advisory Commission on Housing Problems, April 1963), pp. 369-374.}

The outright purchase of land at the prevailing market price in order to control and shape urban development can be a costly process for municipalities that seem barely to have the finances available as it is for such necessities as parks and school sites. In an effort to offset the tremendous costs involved and to minimize the amount of land lost from the tax rolls, a number of land purchase techniques have been proposed, some of which involve less than an outright fee simple interest in the land. One device, for example, that has been made good use of in the Ottawa green belt programme is purchase and leaseback. Farmland was purchased by the city and then leased back to the former owners or to other farmers with the understanding that no nonfarm uses
would be permitted. In this way the land remained open, there was no encroach­
ment by land speculators, and the city made some return on its investment through
the rents demanded.

The major disadvantage of purchase and leaseback is that it requires
a large initial outlay of capital right at the beginning of the programme. To
get around this problem, some planning agencies have proposed the purchase of
land through installments. This would allow the acquisition price to be spread
over an agreed period. A farmer, for example, might agree to sell so many acres
to the government for a set number of years. The government would acquire title
to an increasing portion of the land with each installment payment but the farmer
would continue to work the land until all of it had been paid for. The advan­
tage of this method is that a total price for the property is set at the
beginning of land purchase and later high land costs are avoided as the property be­
comes more marketable. Also, landowners are able to determine for themselves
the exact year in which they wish their use of the land to cease and in the
meantime, the public does not have to spend money to maintain the land.

One technique short of outright land purchase that has been used to
ensure the use of property for a particular purpose is the conservation ease­
ment. This device is based on the principle that if the development rights
to a piece of land are purchased, then there is no need to acquire the fee simple.
The government, by not exercising its development rights after acquisition, keeps
the land open.

A conservation easement may be positive in the sense that it may per­
met the public to use the land for a specific purpose such as a hiking trail
or the fishing rights to a bank of a stream. It may also be negative in the
sense that it limits the owner to the use he can make of his land. A land­
holder upon the sale of an easement, for example, may agree to keep the land


in open space use or not to allow billboards.

Easements are very much legally binding, run with the land and are usually for perpetuity. For this reason, the government's purpose for taking an individual easement must be clearly stated in order to (1) give adequate notice of what rights to land have been conveyed, (2) provide a basis for determining what should be paid for the easement, and (3) help the courts if it should subsequently become necessary to determine who has what rights under the easement. Compensation to the owner for the easement is based on the difference in the market value of the property before and after the easement has been established. In contrast to compensable regulations, however, the easement must be paid for at the time of acquisition.

One advantage of a conservation easement is that the land stays in private ownership and is therefore taxable. As far as the landholder is concerned, the value of the easement can be included as a charitable deduction for income tax purposes. Also, although the owner's property taxes will not necessarily be reduced, he is assured that future taxes will not be raised on the basis of the assessed development potential of the land. Finally, the purchase of only part rights in the property will likely entail less public expense than the acquisition of the full title, although the government should fully expect to pay a price commensurate with what the owner is relinquishing. An easement on land ripe for development, for example, will not come cheaply.

Still another approach to the problem of shaping urban development is the purchase and resale of land with restrictions. The government acquires the land, imposes covenants to ensure that the desired public objectives

12 Ann Louise Strong, op. cit., p. 43.
are attained and then sells the land to private developers. Charles Abrams has taken this technique one step further and suggested that the government actually plan and subdivide the sites in question and then sell the individual building lots to developers. As noted in Chapter III, such a procedure is certainly not new to Canada where many large residential projects have been built through the combined efforts of the federal and provincial governments under the land assembly provisions of the *National Housing Act*.

If the government were to involve itself in a large-scale programme of land acquisition that was properly coordinated amongst the various agencies or departments and not just oriented to the short-term purchase of sites as the need arose, then it would be possible to effectively influence the demand and supply relationship of land in the public interest. To illustrate, assume that a government acquired a large amount of property in a part of the metropolitan region where there was every indication from present trends that the area would not develop with the proper timing to meet public objectives. This would, at least temporarily, take a good deal of land off the market which in turn would increase the demand and therefore the land costs. Developers might then be tempted to either redirect their attentions to another part of the region that has not been growing as quickly, but where land costs are lower, or to increase the density of development on the remaining privately-owned land in the area where the public land purchase had taken place.

A suggested instrument for handling property to assure properly timed development is the land bank. Land is purchased by the community or government in question and held in the land bank until the market is ready to absorb it for the purpose which the community has determined it should be used.  

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To finance such large-scale land acquisition a revolving fund could be established. Because of the high initial cost involved such a programme would likely require government participation at a higher than local level. However, once the fund is set up and a number of properties purchased, the fund could then be reimbursed through the sale of land from the land bank.

Taxation Policy. In a special issue on land problems, House and Home listed the following characteristics of the tax system which aid and abet land speculation and urban sprawl: (1) underassessment on undeveloped land makes it cheap and easy to hold underused land for many years; (2) land speculation profits are taxed at a maximum rate of 25% rather than at ordinary income rates. If a developer loses on one sale he can offset the loss against other capital gains. Also, if he buys land years ahead of his own needs, a developer never pays tax on the rise in land value so long as it is not liquidated by sale. (3) most states in the United States forbid local governments to tax land more heavily than they tax improvements; (4) even a small tax carried by land is fully deductible from state and federal income taxes. A land speculator can therefore offset his land taxes against his ordinary income. For example, a developer in the 75% tax bracket can deduct 75% of his land tax from his income tax. 14

In view of the influence of taxation on the timing of development through its impact on the cost of holding land, a number of changes in tax policy have been proposed to help shape urban growth. On the one hand, there are those critics who argue that tax concessions to farmers will discourage many from selling to developers or land speculators. In contrast, others have suggested that a land tax which assessed land held out of development at its highest use value, while ignoring any improvements on it, would force

speculators to place more land on the market. Presumably, this would help to drive land prices down and result in more compact development.

In regard to the former approach, one technique that has been advocated is preferential assessment for land held in agricultural use. Under this method, the assessment of farmland which is undergoing development pressures on the urban fringe would be based solely on the actual use value rather than on the usually accepted market value. This would lighten the farmer's tax burden and assuming the demand is small compared to the potential land supply, would hopefully encourage him to hang on to his land, at lease for a longer period of time.

It is well to point out, however, that the preferential assessment technique still needs some improving. In a study of Montgomery County, Maryland, where this approach had been adopted, Peter House had pointed out a number of deficiencies that have become evident. These include the following: (1) as to be expected, there was a reduction in the local tax base. The significance of this factor would of course depend on the relative importance of farm assessment in the tax structure of the governmental area in question, (2) there was great difficulty in defining agricultural use which, in turn, would determine what properties were eligible for preferred treatment. Many speculators, for example, would buy land and then lease it for farming purposes to take advantage of the low assessment. (3) in areas close to the city that were being maintained as agricultural land there was a problem in assessing the agricultural value of the property.15

Other techniques that have been proposed include tax exemption, tax deferral and partial tax rebate. In the case of the former, the Delaware and

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New Jersey legislatures can exempt open space entirely or partially from real property taxes provided that there is some public benefit from the open space. Tax deferral would postpone taxes on undeveloped land until such time that it was sold for urban purposes. Lost tax revenues would then be recouped. Under the partial tax rebate method, a certain percentage of real estate taxes would be refunded if the land was kept free from development for a specified number of years. All rebated taxes would then fall due when and if the land was freed for development.

Improved Information Base. An indirect but often effective means by which planners can influence the location of urban growth involves the provision of appropriate factual data on which developers can base their decisions. Too frequently, information gathering is viewed by public officials as a one-sided function in which findings should not be divulged to private interests for fear that such interests might be deliberately operating in conflict with public objectives. The fact is, however, that this negative attitude on the part of planners, when combined with a failure to spell out local policies clearly, often forces a developer who would normally abide by public guidelines if given the proper information base, to establish his own development criteria. Often, such criteria might inadvertently conflict with public goals. The upgrading of a road to a higher traffic use, for example, is not likely to influence a developer’s locational decision if he is not aware of it. It is advisable, therefore, that a planner establish a good working relationship with private interests in his jurisdiction and make a positive effort to work with rather than against the private sphere.

In the new community development field there are a number of ways in which planners could add to the information base. This would assist developers to make locational decisions and also help the planner to anticipate future large-scale developments on the metropolitan fringe. Given the evidence
in Chapter IV, for example, that new community developers prefer large tracts of land either in single ownership or with a minimum of owners, it would be a relatively easy procedure to map all such properties in the metropolitan region. This might give some indication as to where possible future land development pressures might take place. Another alternative might be to study past land sales on the urban fringe over a certain period of time to determine if there is a correlation between land sold and property and landholder characteristics. In this regard, a recent model developed at the University of North Carolina was able to classify from 60% to 80% of the sample parcels correctly as being sold or held over the ten year test period. This model utilized public record data on how long the land had been held prior to the start of the study period; whether or not the owner lived on the land; whether or not the owner was retired; whether the ownership was single or joint; the assessed value of the land; and the amount of urban development surrounding the parcel. The study revealed that those landholders least likely to sell were those not retired who were living on land which they had owned by themselves for more than ten but less than forty years. In contrast, absentee owners, retired persons, joint owners and those who had held their land either for a very short time or a very long time were more included to sell their properties.

Applicability of Land Use Controls to New Community Planning. The preceding section examined a number of tools that might possibly be used by planners to help shape urban expansion. Although not originally designed specifically for directing the location of new communities, it is the opinion of the writer that many of these devices could effectively be employed for that purpose. The various types of land acquisition techniques, in particular, are directly relevant to new community planning in view of the heavy emphasis placed on land

costs and land assembly criteria by private new town developers. Strategically located land could be publicly acquired in advance of development and then subsequently sold to private developers. An indication has also been made in previous chapters of the significance of freeway interchanges in dictating the location of new communities. The proposed concept of development sectors, therefore, could be very much applicable as a development control and deserves more detailed study. The same thing goes for Matthewson's recent proposal for skip annexation since it would promote more stringent land use regulations in more outlying rural areas. In addition, various taxation measures could be effectively used to induce new community developers to build at publicly acceptable locations. For example, the large acreage involved in a new community means that property taxes become a high and unavoidable expense. The governmental deferral of such taxes to a later date when the development begins to pay off, however, could be an attractive inducement to a private company already faced with a high peak debt and burdensome carrying charges.

If the approach is taken that acceptable tools are presently available to planners for shaping urban growth, then how does one rationalize the fact that there are few visible signs of improvements to urban sprawl in the metropolitan region? In this regard, the world of "politics" is such an obvious consideration that certainly no elaboration is necessary. In addition, two other possible factors come to mind. Zoning, for example, has traditionally been the land use control most familiar to planners and has been employed with reasonable effectiveness in built-up areas. In undeveloped or rural areas, however, it has been almost useless as a means of conserving open space because, among other things, of the very general districting involved. That planners
have continued to use this regulatory device in situations where other techniques might be more appropriate would suggest either that some planning agencies are not aware of the possibilities of more recently proposed land use controls, or else they do not possess the technical expertise to draw up a framework for implementing such controls. This would be particularly true in more outlying rural areas where planning staff is usually at a minimum. The critical point to be made, however, is not whether one control is more suitable than another in a given circumstance but rather to emphasize that all possible techniques must be considered and evaluated. No one device, whether it be zoning, land acquisition or taxation measures, can do the job alone. A combination of many techniques is necessary if there is to be a significant impact made on the problems of urban sprawl.

Another factor that bears consideration is not that the regulatory techniques themselves have been ineffective so much as a suitable governmental framework for administering such techniques has generally been lacking. Responsibility for the regulatory process has been divided amongst the various levels of government and has made a coordinated land use control programme difficult.

II. ADMINISTRATIVE POLICY FOR NEW COMMUNITY PLANNING

In view of the need for a correspondingly suitable administrative framework to plan for the location of new communities, three possible organizational arrangements that might be applicable in Canada are suggested in this section. In so doing it is recognized that there are likely other acceptable alternatives.
First, the creation of a provincial development corporation is one possible approach to the problem of planning for new communities. Such a public corporation would choose the locations for new towns, purchase the necessary land and provide the overall development plan for the community, including the infrastructure of public facilities. Responsibility should also be given to this same corporation for acquisition of land for transportation corridors. This would ensure the integration of land use and transportation at the scale of the region and even higher. It could create the skeleton around which to structure future urban regional growth.

This dual purpose authority would carry the power of eminent domain and would be financed largely by the federal government. Finances would be made available to the provincial government for land acquisition and development only on the condition that such a corporation was set up. Also, by controlling the available funds, the federal government could influence the general location of new towns. More money, for example, could be allocated for land purchase in metropolitan regions than in less populated areas, depending of course on the objectives of government policy.

All land acquired by the corporation would be placed in provincial land banks. Once the development plan for the new community was prepared and the public services provided, then land within the community boundaries could be leased or sold to the private sector to develop in accordance with the plan. A revolving fund would thus be created which would help to finance future land acquisitions.

The corporation would work closely with provincial agencies and local government to ensure coordination in locating, acquiring sites and planning for new communities. Local government, for example, would play an important role in the provision of the community infrastructure. However, in less populated
and more outlying regions where local government is weak or nonexistent, it may be necessary for the corporation to take over its governmental powers in order to plan and build the facilities required for the new community. This arrangement would continue until the new community had advanced to the stage where it could handle its own self government.

In addition, since land use and development controls are in the hands of local government, it would be essential that new community sites and transportation corridors be located so as not to conflict with regional planning objectives. If no such urban and region plan is in existence, finances should be made available by the federal government through the corporation for the preparation of such a plan. New communities and transportation corridors would then be coordinated with the growth policies articulated in this plan.

Finally, it is obvious that the success of a new community program depends not only on the control of land within the new town itself but also on effective land use regulation throughout the region. For this reason, it is suggested that money be made available to local governments through the corporation for the specific purpose of land use control. This would encourage local municipalities to apply available but often expensive regulatory tools such as conservation easements and compensable regulations.

The provincial development corporation, as described above, involves much public money and entails only indirect federal participation through the financing provided. As an alternative approach, however, a federal crown corporation might be set up with regional offices located across the country. Its primary purpose would be to finance and acquire land for new communities and transportation corridors in coordination with local and regional planning programmes.
The advantages of this approach are as follows. First, both public and private financial resources could be applied in the costly process of assembling and improving land. Second, the private sector might be more apt to invest in a federal as opposed to a provincial crown corporation. A federal corporation would be involved in new communities right across the country while the number of projects involved in any one province would be more limited. Third, a crown corporation would be more flexible and less encumbered by government red tape. It would also be able to employ its earnings to buy and sell property as it saw fit without having to rely on explicit government spending directions. Fourth, with the national government directly involved, a federal corporation would serve to emphasize in the eyes of the public the importance of a new community programme.

A third approach might be to work within the present administrative framework as much as possible. Where regional plans containing proposed new communities are being implemented in urban-based joint planning areas or within the jurisdiction of boards such as the Metropolitan Toronto Planning Board, the senior levels of government could provide direct financing to the local or regional government involved for the acquisition of land for the new community. Where it is proposed to build a new community in an area of a province where there is no plan or planning supervision, then the senior personnel from the various provincial departments such as Municipal Affairs, Highways, Economics and Development, Mines, and Lands and Forests could meet as a New Community Committee in much the same manner as the existing Townsite Committee in the Province of Ontario. This Committee would have the statutory authority to initiate a new town and provide its necessary services and facilities. Presumably, the location of such towns would be closely tied in with provincial regional growth policies.
This chapter has examined a number of existing regulatory tools available to planners for structuring urban growth. It was concluded that a number of these land use controls could be applied in planning the location of new communities and would be particularly effective if concentrated at strategic sites such as freeway interchanges or where there were large contiguous land holdings. It was also concluded, however, that increased financing and a more suitable administrative framework were required if planning for new communities was to be more effective. To this end, three possible forms of organization were discussed, namely a provincial development corporation, a federal crown corporation and a provincial New Community Committee. It is strongly emphasized, however, that none of these proposals was explored in any rigorous manner. Further research would have to determine their exact appropriateness within the context of Canada's existing legal and constitutional structure.
The growing political interest in new communities in North America in response to central city congestion and the problems of urban sprawl has underscored the need for empirical data on current new community activity as it is now being applied on this continent. This study attempted an examination of such communities but with a particular problem in mind and from a particular point of view. It emphasized the locational determinants for private enterprise new communities in metropolitan regions. The point of view taken was that the recent proliferation of privately developed new communities provides planners with a unique opportunity to structure the permanent future urban pattern of the metropolitan region. But if such planners are to anticipate and plan for these communities, they must strive for an understanding of the underlying development and decision-making criteria involved in such projects, including their possible future locations.

The general objectives of this study were as follows: (1) to establish the importance of examining the location of private enterprise new communities by exploring the idea that such projects reflect attempts to improve the efficiency of the housebuilding and land development industry and, therefore, represent a logical progression in the private sector's contribution to urban development; (2) to examine past new town locational experience, particularly in Britain and Scandinavia; (3) to list a range of possible locational criteria that might be employed in the location of a new community;
(4) to determine the relative importance of such criteria once they have been
identified; and (5) to assess the regulatory tools presently available to
planners for influencing the location of private enterprise new communities.

In terms of the first objective, Chapter II examined the changing
nature of the housebuilding industry and the emergence of new communities after
1960. Particular notice was taken of the structural shift towards the large
building firm, the attempts to improve both the marketability of houses and
management techniques in the industry, and the economies in land costs to be
gained by building a project with relatively balanced facilities further out on
the urban fringe. Reference was also made to the increasing corporate involve­
ment in new communities and the generally more favourable reaction that such
projects receive from local government. It was concluded that the appearance
of private enterprise new communities can be attributed partly to the evolution
of the housebuilding and land development industry itself, and partly to the
conditions of a period characterized by industrial decentralization, new fre­
eways and a more articulate demand for goods and services.

The second and third objectives were combined in Chapter III when
fifteen possible locational criteria for new communities were identified.
The reasons behind the selection of each criterion were discussed in turn.
Where appropriate, reference was made to the British and Scandinavian experi­
ence to illustrate the applicability of a particular locational variable. In
regard to European experience, a number of significant points came to the fore.
These included the following: (1) No new town has been built more than 30
miles from the nearest large city. This distance has been reduced even more in
the more recent British new towns of the sixties. (2) The British have relied
primarily on physical locational criteria in the siting of their new towns.
(3) The success of the Scandinavian new communities can be very much attributed to the fact that the City of Stockholm owned the land for many years and the timing of each new town has been closely coordinated with the provision of rapid transit facilities.

The fourth objective, namely the determination of the relative importance of the locational criteria hypothesized in Chapter III, was not possible based on the existing information available. To this end, a questionnaire was drafted and sent to twelve new community developers in Canada and the United States. The answers from eight respondents were discussed in some detail in Chapter IV and largely substantiate the hypothesis contended in Chapter I that the rate and direction of urban growth, land costs, land assembly, freeway accessibility and government restrictions are the most important criteria influencing the location of privately developed new communities. The two exceptions were (1) the suitability of the site to attract industry was considered more important than government restrictions and (2) access to a highway was viewed as being equally important as access to a freeway. It was strongly emphasized, however, that due among other things to the small sample involved, the exact order of importance of the variables shown in Table V should not necessarily be interpreted as representing the true situation. But the results do give some idea as to which variables as a group are more important than others.

Based on the results contained in Chapter IV, it is now possible to provide the following generalized picture of a typical new town site selected by private enterprise. In describing the site factors that are likely to be
evident in the majority of situations, the obvious limitations of a small sample are recognized. A typical privately developed new community, therefore, is likely to be located:

(a) between 15 and 25 miles from a large existing urbanized area that is experiencing a rapid growth rate.
(b) in the path of future population growth in the urban region.
(c) where prior to site purchase either one person owned all the land or a small number of people owned large acreages of land.
(d) where land costs are considered by the developers to be highly reasonable.
(e) in an essentially rural county or municipality.
(f) where there are good regional highway connections.
(g) where there is either an existing freeway running through or close to the site of where one is planned for the near future.
(h) where there need not necessarily be an existing railway line.
(i) within 10 miles of an existing large airport.
(j) where the topography is rolling and there is good drainage.
(k) where ground water supply is adequate to meet the projected demands of the future development.
(l) where there is an existing body of water for recreation and scenic purposes or where the drainage pattern is such that man-made lakes can be created.
(m) where, in the eyes of the developer, the site could be potentially attractive to industry.
(n) where local government officials are highly cooperative and generally receptive to the development proposal.
(o) In an area where the absence of an overall plan is a distinct possibility and where the effective designation of new town sites on such a plan prior to any development proposal would be extremely unlikely.
In terms of the fifth objective, Chapter V discussed a number of regulatory devices for directing land development. These land use controls included various zoning arrangements (agricultural, floodplain, large lot, timed-development), compensable regulations, annexation powers, land acquisition (eminent domain, outright purchase, purchase and leaseback, conservation easement) and taxation policy (preferential assessment, tax exemption, tax deferral). It was generally concluded that existing zoning practices were unreliable in directing the location of new communities. Two recent concepts, development sectors and skip annexation, appear to have some potential. The various types of land acquisition techniques, in particular the land bank concept, are more directly applicable in influencing the location of new communities.

It was also concluded, however, that in terms of the whole land development control programme, all possible techniques must be considered and evaluated. No one device, whether it be zoning, land acquisition or taxation measures, is sufficient. A combination of many techniques is necessary if there is to be a significant impact on urban sprawl. In this regard, what is required is increased financing from the senior levels of government to local government for the specific purpose of land use control. The application of available but often expensive techniques such as conservation easements and compensable regulations would then be encouraged.

Finally, three possible administrative arrangements for planning for new communities were suggested. None of these proposals was explored in any rigorous manner. Further research would be necessary to determine their legal and constitutional appropriateness.
Bibliography

Books


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**Periodicals**


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Government Publications


Great Britain. New Towns Act. 9 and 10 Geo. 6, c. 68, 1946.


Special Reports and Issue of Periodicals


Other Plans, Reports, Studies, Unpublished Papers.


Bramalea Consolidated Developments Ltd. Bramalea, Canada's First Suburban City.

Century City. A Brochure Prepared by Proctor, Redfern, Bousfield and Bacon, Consulting Engineers and Town Planners.


Miller, R.G. The Bramalea Story.


Victor Gruen and Associates. *From Farmland to City, Litchfield Park Arizona.*


**Theses**


Newspapers


"West Credit Plans Leave One Question: What Do We Call It?", Toronto Globe and Mail. April 26, 1969. 10.
APPENDIX A

A Questionnaire to Determine the Relative Importance of the Locational Criteria Employed in the Site Selection Process for a New Town Development

KEY

<table>
<thead>
<tr>
<th>Symbol</th>
<th>New Town</th>
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<td>H</td>
<td>Centennial City</td>
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</table>
A Questionnaire to Determine the Relative Importance of the Locational Criteria Employed in the Site Selection Process for a New Town Development

1) In choosing the location for the New Town development, was the cost of the land at the selected site a factor which could be described as

- a) highly significant
- b) significant
- c) slightly significant
- d) not significant
- e) not even considered
- f) not a factor in this case

Please feel free to comment or elaborate on your answer. C - To assemble 10,000 acres requires fringe area where land costs of relative secondary factor

2) Based on your experience, would you describe the cost of the land at the site selected for the New Town development as

- a) highly reasonable
- b) reasonable
- c) slightly reasonable
- d) not reasonable
- e) not a factor in this case

Please feel free to comment or elaborate on your answer.
3) Before the purchase of the site for the New Town development, would you describe it as a location where

a) one person owned all of the land  
   BDEF
b) a small number of people owned large acreages of land  
   CGH
c) a large number of people owned small acreages of land  
   A

Please feel free to comment or elaborate on your answer. C - Approximately 17 owners for 10,000 acres.

4) Was the site selected for the New Town development because the developer had prior ownership of the land and then decided to develop it as a New Town?

Yes  BCEF
No  ADGH

Please feel free to comment or elaborate on your answer. C - Developer owned for several years before deciding to develop.

5) Would you describe the task of assembling the land under one ownership for the purpose of developing the New Town as

a) highly difficult  
   G
b) difficult  
   AC
c) slightly difficult  
   BDFH
d) not difficult  
   E
e) not a factor in this case  

Please feel free to comment or elaborate on your answer. C - The more rural the character, the easier to assemble.

6) In choosing the location for the New Town development, was the opportunity to assemble the land at the selected site a factor which could be described as

a) highly significant  
   ABDF
b) significant  
   H
c) slightly significant  
   CG
d) not significant  
   E
e) not even considered  
   F
f) not a factor in this case  

Please feel free to comment or elaborate on your answer. C -
Please feel free to comment or elaborate on your answer to the preceding sixth question. C - Locations suitable to assemble were relatively few.

7) Before the purchase of the land for the New Town development, was the site served by an

- existing railway line
- existing freeway
- existing major highway
- existing airport
- other (specify)

Please feel free to comment or elaborate on your answer. A - Freeways planned but not constructed; E - Interstate highway planned. Naval Air Station adjacent to site has since been taken over by Phoenix as a municipal airport.

8) If the facilities mentioned in question (7) are not contained within the boundaries of the New Town development, or immediately adjacent to it, please state the approximate distance of these facilities from the New Town site.

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<thead>
<tr>
<th>Facility</th>
<th>Approx. Distance from New Town in Miles</th>
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<td>railway</td>
<td>A 20 1 1 in 4 in 5 in</td>
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<tr>
<td>freeway</td>
<td>B 10 in 4 10 5</td>
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<tr>
<td>major highway</td>
<td>C in 2 in 2 in 2 in 1 in</td>
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<tr>
<td>airport</td>
<td>D 10 5 in 5 4 30 8</td>
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<tr>
<td>other (specify)</td>
<td>E</td>
</tr>
</tbody>
</table>

Please feel free to comment or elaborate on your answer. B - major highway soon to be 4 lanes to freeway.

9) In choosing the location for the New Town development, was the availability of each of the following transportation facilities within or near the selected site a factor which could be described as

Please Check One Answer for Each Type of Facility

- railway
  - (i) highly significant
  - (ii) significant
  - (iii) slightly significant
  - (iv) not significant
  - (v) not even considered
  - (vi) not a factor in this case
(Question (9) continued):

b) freeway

(i) highly significant
(ii) significant
(iii) slightly significant
(iv) not significant
(v) not even considered
(vi) not a factor in this case

E

ACF

DGH

B

DGH

BE

Highway

(i) highly significant
(ii) significant
(iii) slightly significant
(iv) not significant
(v) not even considered
(vi) not a factor in this case

E

Major

(i) highly significant
(ii) significant
(iii) slightly significant
(iv) not significant
(v) not even considered
(vi) not a factor in this case

E

Airport

(i) highly significant
(ii) significant
(iii) slightly significant
(iv) not significant
(v) not even considered
(vi) not a factor in this case

E

Other

(i) highly significant
(ii) significant
(iii) slightly significant
(iv) not significant
(v) not even considered
(vi) not a factor in this case

E

Please feel free to comment or elaborate on your answers. F - Since Bramalea includes a major industrial park, these facilities became of great importance and significance; E - All were available but possession of land was overriding factor.

10) Before the purchase of the land for the New Town development, was there knowledge of any proposed construction, in the near future, of new transportation facilities in the area of the New Town location? If "yes", what type of facility?

Yes ADEGH

No BCF

Please feel free to comment or elaborate on your answer. A - Freeways;
B - enlargement of San Mateo Bridge and construction of freeway approach;
E - plans for Interstate were known before decision to build was made;
H - proposed highway improvement programme.
11) If the answer in question (10) is "yes", could the knowledge of this proposed new transportation facility as a factor in determining the location selected for the New Town site be described as:

Please Check One Answer

a) highly significant
b) significant
c) slightly significant
d) not significant
e) not even considered

Please feel free to comment or elaborate on your answer.

12) Before the purchase of the land for the New Town development, did any of the following recreation facilities already exist at the site or close to the site?

Please Check Where Applicable

a) recreational bodies of water for swimming, boating etc.
b) scenic bodies of water
c) golf course
d) a large multi-use park
e) other (specify)

Please feel free to comment or elaborate on your answer. A = Regional parks nearby.

13) In choosing the location for the New Town development, was the availability of recreation facilities within or near the selected site a factor which could be described as:

Please Check One Answer

a) highly significant
b) significant
c) slightly significant
d) not significant
e) not even considered
f) not a factor in this case

Which recreation facility at the site for the New Town development was the most significant in helping to influence the actual choice of that site for the New Town? C = Lake Folsom; G = 400 acre conservation area; H = multi-use park.
14) Before the purchase of the land for the New Town development, were the following characteristics of the site considered to be important factors in its future development? If not, why not?

Please Check Where Applicable

a) topography
b) underlyng bedrock
b) soil conditions for building & drainage
d) ground water
e) other (specify)

If not, why not? C - Land assembly took precedence.

Please feel free to comment or elaborate on your answer.

15) In choosing the location for the New Town development, was the question of providing the site with basic services (such as water, sewer etc.) a factor which could be described as

Please Check One Answer

a) highly significant
b) significant
c) slightly significant
d) not significant
e) not even considered
f) not a factor in this case

Please feel free to comment or elaborate on your answer. E - Had to be satisfactory before decision to build was made but did not influence site selection.

16) When dealing with the local government officials responsible for administering the area (county, city, metropolitan area etc.) in which the New Town development was to be located, were these officials

Please Check One Answer

a) highly cooperative
b) cooperative
c) slightly cooperative
d) not cooperative
e) not a factor in this case

Please feel free to comment or elaborate on your answer, C - Play it straight and work with them; F - Development represented first urbanization occurring in an otherwise total rural municipality located on outskirts of Toronto.
17) Did any problem(s) arise with the proposed New Town development in regard to local public regulations such as zoning ordinances, building codes and subdivision requirements? If "yes", please elaborate on the nature of the problem(s).

Yes ABDFGH No C

A - Required new form of zoning; B - Zoning ordinances re-written and variances needed on building codes; D - Difference with County Engineer as to elevation filled ground was to be brought; F - Rural municipality had no building by-laws for type of development envisaged; G - Fear of what could happen if not controlled by local government; H - Lack of experience on part of local officials.

18) In choosing the location for the New Town development, were such variables as local opinion and public regulations governing land development, factors which could be described as

Please Check
a) highly significant G
b) significant BD
c) slightly significant ACH
d) not significant 

e) not even considered F
f) not a factor in this case E

Please feel free to comment or elaborate on your answer.

19) In choosing the location for the New Town development, was the RATE and DIRECTION of population growth for the area (county, city, metropolitan area, etc.) a factor which could be described as

Please Check
a) highly significant ABDFGH
b) significant CE

c) slightly significant

d) not significant 

e) not even considered 

f) not a factor in this case

Please feel free to comment or elaborate on your answer.

20) Was the site selected for the New Town development in a location where an overall plan had been prepared for the area? (such as a county plan, city plan or metropolitan area plan). If "yes", was this plan in effect?

Yes BD No ACEFGH Don't know 

B - Metro plan in effect as a suggestion. Reston plan, however, became part of the county's official 400 sq. mile master plan.
21) If the answer in question (20) is "yes", was this plan drawn up by a

a) state or provincial planning agency
b) metropolitan area planning agency
c) county agency
d) other (specify)
e) don't know

Please feel free to comment. A - County plan did not envisage new towns; Regional plan did denote "metro-towns"; F - A master plan was prepared by the municipality together with an Official Plan after the land was assembled.

22) If the answer in question (20) is "yes", did this overall plan designate possible locations for new town developments?

Yes AB No D Don't know

23) If the answer in question (22) is "yes", did the site selected for the New Town development roughly coincide with the new town site designated on the overall plan for the area (county, city or metropolitan area, etc.)? If not, why not?

Yes AB No

24) In choosing the location for the New Town development, was the fact that an overall plan existed for the area (county, city or metropolitan area, etc.) a factor which could be described as

Please Check One Answer

a) highly significant
b) significant
c) slightly significant
 d) not significant
e) not even considered
f) not a factor in this case

Please feel free to comment. B - Before development slightly significant; after initial development highly significant.
25) Please indicate additional criteria not previously dealt with in this questionnaire which helped to determine the location of the New Town development. Also, indicate the significance of each criterion in the site selection for the New Town.

1. D - The size of the land, 2700 acres, in the midst of a heavily built up area virtually dictated its use. There was no other meaningful choice.
   (a) __ highly significant; (b) ___ significant; (c) ___ slightly significant; (d) ___ not significant;

2. __________________________________________________________________________
   (a) __ highly significant; (b) ___ significant; (c) ___ slightly significant; (d) ___ not significant;

3. __________________________________________________________________________
   (a) __ highly significant; (b) ___ significant; (c) ___ slightly significant; (d) ___ not significant;

4. __________________________________________________________________________
   (a) __ highly significant; (b) ___ significant; (c) ___ slightly significant; (d) ___ not significant;

26) What approximate area percentages were established for the following land uses in the New Town development?

<table>
<thead>
<tr>
<th>Land Use</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Residential</td>
<td>64</td>
<td>59%</td>
<td>60</td>
<td>52</td>
<td>60</td>
</tr>
<tr>
<td>b) Industrial</td>
<td>8</td>
<td>13%</td>
<td>15</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>c) Commercial</td>
<td>2</td>
<td>6%</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>d) Public/Institutional</td>
<td>11</td>
<td>11%</td>
<td>8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>e) Public Open Space</td>
<td>15</td>
<td>11%</td>
<td>12</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>f) Vacant</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

27) What was the single most important factor in choosing the site for the New Town development?

A - Market; B - Availability of land and then suitability for new town use; C - Assembly of 10,000 acres; D - Site available, dictated its own use; E - Availability of 8,000 easily assembled, relatively cheap land close to metro Toronto; F - Toronto market and availability of services; G - Immediate market because of location minimizing investment risk by forcing continuous rise in price of land.
28) What was the single most perplexing problem related to the selection of the site for the New Town development?

B - Means to ensure municipal services available, transportation and how to carry undeveloped land; F - Establishing a new town as opposed to a subdivision; G - Political climate; H - Inability of government officials to understand need for such a development in order to meet market demands.

29) Please rank the following variables on the basis of their relative importance in determining the location for the New Town development. Rate each variable according to a 0 - 5 scale. A rating of 5 would indicate that the variable was highly important in determining the location for the New Town while a rating of 0 would indicate that it was not even considered in the site selection process. Ratings of 1 to 4, in that order, indicate increasing importance.

<table>
<thead>
<tr>
<th>Please check one rating for each variable</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Land costs</td>
<td></td>
<td></td>
<td>C</td>
<td>DH</td>
<td>ABFG</td>
<td></td>
</tr>
<tr>
<td>b) Land assembly</td>
<td></td>
<td></td>
<td>G</td>
<td>H</td>
<td>ABCDF</td>
<td></td>
</tr>
<tr>
<td>c) Local public regulations such as zoning, building codes, etc.</td>
<td>F</td>
<td>ACH</td>
<td>BD</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Local opinion in area where New Town to be located</td>
<td>ACFH</td>
<td>DG</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Ground water supply</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>AFGH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Site suitable for recreation development</td>
<td>F</td>
<td>BCDGH</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Site in a good location to attract industry</td>
<td>C</td>
<td>BDGH</td>
<td>AF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Prior ownership of the land</td>
<td>ADGH</td>
<td>C</td>
<td>B</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Close to an airport</td>
<td>ACG</td>
<td>B</td>
<td>H</td>
<td>F</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>j) Close to a railway</td>
<td>ABC</td>
<td>G</td>
<td>DF</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Close to freeway</td>
<td></td>
<td>C</td>
<td>ABFGH</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Close to major highway</td>
<td></td>
<td>C</td>
<td>ABFG</td>
<td>DH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Site conditions such as topography, bedrock, drainage etc.</td>
<td>AC</td>
<td>DF</td>
<td>B</td>
<td>GH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(Question (29) continued):

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>n) Site designated as New Town location on an overall plan for the area</td>
<td>CDFGH</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>o) Rate and direction of population growth for the area</td>
<td></td>
<td></td>
<td>F</td>
<td>C</td>
<td></td>
<td>ABDGH</td>
</tr>
<tr>
<td>p) Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>q) Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r) Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30) If the process of selecting the site for the New Town development had to be done over again, what changes would be made in the criteria used to select the site?

B - Better transportation; H - would seek better government consideration by choosing an area where they would be co-operative, encouraging, and inclined to assist rather than create political opposition from every corner.

31) This space has been set aside for any person wishing to make additional comments dealing with points not specifically raised in the questionnaire, or wishing to clarify earlier statements.

Thank you very much for your time and effort. It is gratefully appreciated.
## APPENDIX 'B'

**New Community Developers and Consultants Receiving a Questionnaire**

<table>
<thead>
<tr>
<th>New Community</th>
<th>Developer or Consultant</th>
<th>Questionnaire Answered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia</td>
<td>The Rouse Company, Village of Cross Keys, Baltimore, Maryland, 21210.</td>
<td>X</td>
</tr>
<tr>
<td>El Dorado Hills</td>
<td>Mr. Richard Miller, Land Planner, El Dorado Hills West, P. O. Box 1, El Dorado Hills, California.</td>
<td>X</td>
</tr>
<tr>
<td>Foster City</td>
<td>T. Jack Foster and Sons, P. O. Box 4100, Foster City, California.</td>
<td>X</td>
</tr>
<tr>
<td>Irvine</td>
<td>Mr. Richard A. Reese, Vice-President, Planning, The Irvine Company, Irvine, California, 92664.</td>
<td>(partly)</td>
</tr>
<tr>
<td>Litchfield Park</td>
<td>Mr. John D. Doherty, Jr., Vice-President, Doherty Associates, Inc., 551 Fifth Avenue, New York, N.Y., 10017.</td>
<td>X</td>
</tr>
<tr>
<td>Reston</td>
<td>Mr. Jack Lynn, Public Relations Director, Gulf Reston Incorporated, 1610 Washington Plaza, Reston, Virginia.</td>
<td>X</td>
</tr>
<tr>
<td>Sunset</td>
<td>Real Estate Division, Sunset International Petroleum Co., 3475 Sunset Blvd., Rocklin, California.</td>
<td></td>
</tr>
<tr>
<td>Bramalea</td>
<td>Mr. M. E. Hardisty, Senior Vice-President, Bramalea Consolidated Developments Ltd., 70 Bramalea Rd., Bramalea, Ontario.</td>
<td>X</td>
</tr>
<tr>
<td>New Community</td>
<td>Developer or Consultant</td>
<td>Questionnaire Answered</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Centennial City</td>
<td>Mr. C. D. Milani, President, Milani &amp; Milani Holdings Ltd., 44 Uplands Avenue, Thornhill, Ontario.</td>
<td>X</td>
</tr>
<tr>
<td>Century City</td>
<td>Mr. Louis J. Devor, Revenue Properties Ltd., 12 Sheppard Street, Toronto 1, Ontario.</td>
<td>X</td>
</tr>
<tr>
<td>Erin Mills</td>
<td>Mr. Eli Comay, Planning Consultant, 9 Sultan Street, Toronto 5, Ontario.</td>
<td></td>
</tr>
<tr>
<td>Kanata</td>
<td>Mr. William Teron, Teron Incorporated, Kanata, Ontario.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

Current Planning for the Location of New Communities

A joint study in 1967 of state and metropolitan area planning agencies by the Advisory Commission on Intergovernmental Relations and the American Institute of Planners revealed that only two states and thirteen metropolitan area agencies had actually developed plans containing new communities. Table IV summarizes the response from this survey.

TABLE VI

ACIR/AIP Survey Responses on Planning for New Communities

<table>
<thead>
<tr>
<th>Extent of Planning for New Communities</th>
<th>State</th>
<th>Metro.Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans include provision for new communities</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Plans being developed or under consideration</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>No plans developed include provision for new communities</td>
<td>28</td>
<td>98</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td><strong>36</strong></td>
<td><strong>137</strong></td>
</tr>
<tr>
<td>Total questionnaires distributed</td>
<td>64</td>
<td>232</td>
</tr>
</tbody>
</table>


In an effort to determine the degree of explicitness of this type of planning for new communities, a number of reports and regional plans were examined. This analysis did not pretend to be rigorous in any way. To do so would have required an extensive survey of planning agencies, possibly by questionnaire, to ascertain more specifically the locational criteria employed. This would have amounted to a separate study in itself and it is therefore suggested as a possible area for further research.
The following reports or plans were reviewed and are considered to be representative of the above Table.


(iii) Metropolitan Toronto and Region Transportation Study (Choices for a Growing Region, 1967).


(vi) Howard County, Maryland, General Plan (A Supplement to the Text of the Howard County General Plan to Guide the Construction of New Towns, New Communities, and Large-Sale Neighbourhoods, 1965).

The general conclusion of this examination was that public planning for new communities has not yet proceeded to the point of preciseness that would make it possible in this study to outline in some detail the new town locational criteria employed. Not only are very few agencies engaged in this type of plan preparation (Table VI), but those that have done so, particularly at the regional and state level, have been primarily concerned with presenting very sweeping development policy alternatives that have very rarely been adopted for implementation. Those that have been approved have never been followed because the necessary and often tedious task of drawing up the appropriate local regulations or, in other words, the "nitty-gritty" details which are basically what planning is all about, has seemingly never taken place.
Perhaps, as William H. Whyte has suggested, the euphoria which surrounds the public announcement of these end-state plans can be attributed to the fact that such plans show only the final grand design and in so doing, get everybody off the hook.

"If they had to make a decision on just one element of the plan, the whole edifice of consensus would come tumbling down. But the plans do not confront people with immediate and difficult choices. They vault over the messy present and near future. They take the big view. They make everybody feel bold."¹