THE PERCEPTIONS OF ELDERLY RESIDENTS TOWARD
THE PHYSICAL ENVIRONMENT AND PLANNING

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ABSTRACT

As the Canadian population ages the implications for urban planning are becoming an important concern. This concern, thus far, has focussed largely upon single issues such as "housing and the elderly" or upon the "institutionalized" elderly. Relatively few investigations have explored the larger issue of the role of urban planning in Canadian communities with a substantial proportion of elderly residents. This study examines the environmental factors that influence the elderly person's "quality of life" in White Rock, British Columbia. More specifically, the objectives are:

1. to describe specific problem areas and identify where, when and how they occur.
2. to identify factors in the physical environment of White Rock that influence an elderly person's ability to maintain personal independence.
3. to review proposed alternative methods of intervention that might offer an improvement in accommodating the environmental requirements of White Rock's elderly residents.

The approach taken in this study consists of three steps. The first step summarizes the existing literature on past planning practices in Canada and the United States regarding the elderly together with the environmental requirements of the elderly. The second research task involves the collection of information at the municipal
level to establish a profile of White Rock. The third step includes focussed group interviews with three groups of four elderly residents (and one pre-test group) to gain their views on the community's physical environment. As well, focussed interviews are conducted with the local mayor and planner to obtain their responses to the group interview findings.

The major conclusions are:

(1) there is a need for further study in Canada of the non-institutionalized elderly that strikes a balance between those studies that examine single environmental issues facing the elderly and those that pursue a more holistic approach.

(2) maintaining maximum independence in daily living is vitally important to the elderly.

(3) there is a heightened effect of the physical environment upon the elderly.

(4) there is a need for changes in the practice of community planning regarding the elderly.
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CHAPTER ONE

Problem Statement

This thesis examines the extent to which the special environmental requirements of elderly residents are accommodated in the City of White Rock.[1]

Scope

A community can be defined as "a group of people who interact with one another - even if indirectly - to fill their needs and who share an identity with the place they live."[2] White Rock, like most communities in British Columbia, proclaims the enhancement of "quality of life" as one of its major goals. This description is difficult to define \textit{a priori}, since it depends on the subjective judgments of individuals. \textit{A priori} decisions may be avoided if the quality of life is defined by first considering the subjective judgments of individuals.[3] The phrase most often used to represent a person's subjective assessment of the quality of his or her life is "life satisfaction." Life satisfaction can be defined as "an assessment of the overall conditions of existence as derived from a comparison of one's aspirations to one's actual achievements."[4] [George] Gerontological research indicates consistently that socio-economic status, health, certain environmental circumstances, degree of independent living and activities are significantly related to life satisfaction.[5]
Specifically, as one ages, the community takes on greater significance. For example, a lack of social contact in the area, or nuisances such as traffic, excessive noise or lack of park space may become major stressors rather than minor inconveniences.[6] As well, the basic services provided in the local area become more important as age increases.[7] In order to live independently, an elderly person may need transportation, shopping, recreation, amenities and social contacts near by. Spatial structure, therefore, affects the amount and kind of human contact which persons may enjoy. It also might affect one's sense of independence and feelings of individual worth. For the purpose of this study, an elderly person is defined as someone 65 years of age or over and able-bodied. The sample group definition of an elderly person is someone (1) 65 years of age or over; (2) able-bodied; (3) living in an apartment; and (4) a minimum 3 year White Rock resident.

Among British Columbia communities, the City of White Rock has unique qualities. It is located in the extreme south-west corner of British Columbia, approximately 30 miles from downtown Vancouver and within 2 miles of the Washington State U.S. border. White Rock has a high concentration of elderly residents. According to the 1981 census, 35% of White Rock's population is 65 years of age or over.[8]
In 1980, White Rock established an official community plan. To measure whether White Rock is attaining the above stated community goal requires clarification as to what indicators constitute health, safety, comfort and convenience. For the purpose of this study, the following definition will be used: "improving the physical environments for persons 65 years of age or older."[9] In other words, it is argued by this study that improvement in the present physical environment would enhance White Rock's role as a retirement community for the elderly.

In summary, the main thrust of this study is an examination of the physical environment and the factors that influence the elderly population's ability to function independently in that environment. The specific issues to be examined include: (1) residential environment - housing design and location, landscaping, street lighting; (2) facilities and services - transportation, health care, recreational, social and commercial; (3) spatial arrangement - walking distances to facilities and services, design of streets and sidewalks; and (4) the role of local government - attitude towards elderly residents, how and in what ways the environmental requirements of elderly residents are accommodated.
Objectives
(1) To describe specific problem areas and identify where, when and how they occur.
(2) To identify factors in the physical environment of White Rock that influence an elderly person's ability to maintain personal independence.
(3) To review proposed alternative methods of intervention that might offer an improvement in accommodating the special physical requirements of White Rock's elderly residents.

The Study's Relevance
A cursory look at the demographic statistics reveals that, proportionately, Canadian society is aging. In 1951, 6.7% of the population was 65 years of age or over, and by 1981 it was 9.7%.[11] Estimates indicate that 80% of Canadians over age 65 live independently; 10% live in senior citizen housing or sheltered housing of some form; and 9% are in sheltered care settings.[12] It is only recently, however, that serious attention has focussed upon the issues facing the largely independent segment of the elderly population. Professionals dealing with the elderly have centred on specific issues such as housing (Mathieu; Lawton); health care (Gutman and Stark; Fox); and transportation (Golant; Wachs). Relatively few studies have explored the role of urban planning in Canadian communities with a substantial proportion of elderly residents.
The contributions of this study are:

(1) A literature review of the special environmental requirements of the elderly.

(2) Focussed group interviews with elderly White Rock residents.

(3) Focussed interviews with White Rock decision-makers (mayor and planner).

This study may provide Canadian planners, decision makers and the public in and beyond White Rock not only with insights into the particular environmental needs of the elderly but also with ways by which these needs can be accommodated.

**Thesis Organization**

Chapter Two summarizes the literature on past planning practices with regard to the elderly plus the environmental requirements of the elderly.

Chapter Three presents a brief sketch of the case study site - White Rock, British Columbia. Topics discussed include its history, physical characteristics, community services, demographic characteristics and economic base.

Chapter Four reviews methods used to establish firstly, what some elderly residents in White Rock perceive as factors in the physical environment that influence their
ability to maintain their personal independence and secondly, in what ways the environmental requirements of the elderly residents are accommodated in White Rock. This chapter also has an analysis of the group focussed interviews with elderly residents plus interviews with the mayor and planner.

Chapter Five presents an analysis of the findings and conclusions of the study.
CHAPTER TWO

Introduction

This chapter provides the literature foundation for the study. It begins with a look at past practices of community planning in Canada and the United States regarding the elderly and continues with an examination of such topics as housing, residential environment, services and facilities and transportation. Recommendations to enhance the elderly person's quality of life, are also made.

History

Before proceeding any further it is necessary to have an understanding of "planning". For the purposes of this study "planning" is defined as:

First, the attempt to attain certain goals within a community... In democratic societies, planners become advisors to those who make public policy decisions; systems of accountability to those who live within the community are supposed to be developed.

Second, "planning" is intended to be a rational process. This assumption is based on the belief that social change requires intentional action. In other words, rather than leaving community development to chance or to those with political power, decision-making that is based on rational goals must be exercised.[13](Morgan)

Of central concern to the question of planning is the nature of community goal selection and development.
Planners do not work in isolation from the people they serve. Herbert Gans argues that planners and other professionals do not monopolize knowledge about the goals and values of the community. "Diversity is valuable", he writes, "and people are entitled to live in any way they choose, unless that way can be proved to be destructive to them or their fellowmen."[14]

Gans is a proponent of what he calls goal-oriented planning. This planning approach begins with the assumption that each community retains certain desirable goals for itself. The task of the planner is to assist the community in clarifying those goals and placing them in order of priority. Since resources are often limited and goals unrealistic, planners must also be able to help communities select priorities. Gans contends that "the most important role of the planner is, however, to tell the community and its decision-makers that if they want to achieve goal x, they must institute program y, requiring certain costs and resulting in certain consequences."[15]

In recent practices related to community planning and development, decisions frequently have ignored the elderly as a segment of society. For instance, Wilson in his study of the physical environment near rest homes and care facilities in the Greater Vancouver area concluded that:
... there had been a considerable degree of mislocation or mal-location of homes. Many were located where they are, either because of limited funds, or because the site was donated. But what does not seem to have been given particular attention was the needs of the old people who would inhabit them.[16]

One reason for this neglect by decision makers can be traced to the general feeling of unimportance that was attached to the elderly persons themselves. Other community issues, such as transportation or employment, were believed to be more urgent.[17] As well, elderly persons often appeared powerless. In the past other interest groups waged struggles to gain the attention of policy makers and the elderly citizen seemed relatively "quiet and stable". Consequently, many general planning concepts have tended to discriminate against the elderly in that lack of adequate provision for them is a decision to exclude them.[18](Langford)

A striking example of planning with little thought of the elderly is revealed in the neighbourhood unit theory. The neighbourhood has been planned largely for the family with children since those concerned with neighbourhood design have linked it with child rearing. Clarence Perry, who developed many of the concepts associated with the neighbourhood theory, has stated:

Of these various kinds of housing, that devoted to child-rearing families is peculiarly and vitally dependent upon the
resources and character of the immediate vicinity. Parents require much more than a house and lot. They need a school, a playground, groceries and drugstores, and perhaps a church. They want their children to associate with children from homes which hold standards similar to their own.[19]

Although the needs of the elderly are not basic to the theory, certain needs of the elderly are met in the conventional view of neighbourhood - for example, nearness to community facilities and the protection from heavy traffic. Despite these similar requirements widowed or single individuals and families without children often have needs and activities which are not met in the conventional neighbourhood. Dean has stated that many types of families, among them the elderly, function quite well without being integrated into the traditional neighbourhood and might be best served by specialized neighbourhoods.[10] Langford further argues:

Not only have neighbourhoods been developed with the needs of young families as criteria, but in many communities land use plans have prevented new patterns from forming and have frozen existing patterns - in many cases discriminating against the elderly.[21]

In the development of land use patterns, communities attempt to separate uses and to prevent one use from damaging another. Often this goes beyond the mere separation of business and commercial from residential uses. Areas may be set aside for single-family houses, or
multiple-family structures. This, plus current building practice, tends to create neighbourhoods with houses of similar type, size, lot size and cost. Thus, as Langford notes, "the attempt to prevent an adverse mixture of land uses, in practice, prevents a mixture of different types of people."[22] Hoben has remarked that:

Zoning ordinances and related land use controls should be examined critically to see whether they are creating a stratification of population which not only freezes out the old people but also creates neighbourhoods suitable for use by a family during only a very short part of its life cycle.[23]

Another set of factors which reflect the community's view of the elderly and affect the ways in which needs of the elderly may be met consists of legal limitations. Within each community, laws are established which intentionally or unintentionally influence the elderly-housing facilities relationship. Sometimes these laws reflect attitudes toward the elderly and create limitations by intent; sometimes they create impediments because of lack of concern with or insight into their repercussions.[24]

Zoning is the device used to maintain or develop desired land use patterns. Langford stresses that three types of prohibitions in zoning law have especially affected the elderly population: the prevention of conversion; the prevention of special housing types; and the prevention of mixed land uses.[25] The conversion of large dwelling units
into several smaller units is both a means of allowing the elderly to remain in their homes and a means of providing special housing for the elderly. Elderly individuals or couples often own larger houses than they need - houses which may have structural deficiencies, and that tend to be located in deteriorating neighbourhoods. If the physical and financial burden of maintaining such a structure cannot be borne by the elderly individual, good alternatives are limited. If prohibited from converting the house, the elderly person may be forced to move.

The possibility of converting large dwelling units into smaller units to meet the changing needs of the elderly is often prevented by local zoning ordinances. This was the case, for instance, in Vancouver until the late 1960's. [26] Prohibition of conversions is usually based both on a desire to separate residential uses from other uses and on a fear that converted housing will become substandard or will increase the density of population with its resulting pressure on existing facilities. It has been pointed out, however, that conversion for the elderly would tend to be free from some of the hazards to neighbourhood stability. Elderly households, for instance, are small and would not create land crowding and with decreased car ownership they would require less parking space. [27]

Although much has been written on planning special accommodations for the elderly, a basic question frequently
not faced is where such housing, particularly that involving
group living, can be located. Zoning provides different
answers in different communities. In a survey of
communities in Los Angeles County, variation was found
between communities in the different kinds of group living
arrangements which were permitted. For the physically-well
elderly, seven out of ten of the communities allowed for six
or more persons per dwelling in one of the residential
zones. In some communities, however, group living was not
allowed in any zone.[28]

The final problem which zoning creates in relation to
the elderly is in respect to its purpose of separating uses.
In an area zoned strictly for residential use, the
development of any type of housing complex which has
shopping or recreational facilities would be impossible. It
has been found that in small communities where neighbourhood
shopping is not the pattern, neighbourhood facilities are
seldom used by the elderly even when more convenient than
other facilities. However, for the elderly who are unable
to travel to distant facilities and have no one to take
them, maintaining independent living may well depend upon
having shopping and recreational facilities integrated with
housing.[29]

The individual's ability to exercise control over his
or her own destiny in the neighbourhood is limited because
most decisions regarding services belong to the public sector. It is extremely difficult for most elderly persons to affect policy because group cohesiveness and age-consciousness is essential to impact the political process.[30](Morgan) There are few avenues of influence open to the elderly. Advocacy groups such as the American Association of Retired Persons, the Gray Panthers, and Senior Power in the United States and New Horizons in Canada, are providing an organized structure for the participation of the elderly in the decision-making process, but this influence is limited.

Founder and National convener of the Gray Panthers, Margaret Kuhn, recently gave testimony to the United States House Select Committee on Aging calling for new mechanisms to allow greater involvement of elderly people in the decision-making that affects their lives. According to Kuhn, the criticism must in part be directed at the planners whose "management style of planning is cast in the traditional mold of services for older people."[31] She noted that participation does occur, but not seriously. Advisory councils "rubber stamp" agency staffer's plans. Her other criticisms addressed "a lack of training for older people to allow for their intelligent participation, a fragmented assessment of needs which hinders individual involvement, and a lack of control in an overall plan..."[32]
How does one assess the needs of the elderly resident?

Here are four possibilities:

(1) Review existing information. In all probability the best source of information about the characteristics of older adults will be data from the [Canada] Census Bureau; this will provide background on income, condition of housing and related information. Local agencies in the community also retain information.

(2) Conduct research studies. The most direct way to assess needs and priorities is to ask questions directly of the persons to be served.

(3) Interview older persons. Because many older persons are isolated, even within large cities, it is often necessary to find ways of reaching out. In some communities, door-to-door interviews are conducted; this not only provides information but also serves as contact with isolated persons. Some agencies will use longitudinal panels to assess needs and evaluate programs.

(4) Hold community meetings. It is important to provide informal forums where older persons can meet together to discuss needs and priorities. Before holding such meetings, it is best to recruit and train various persons as group moderators. In each session, records of the meeting should be taken. One interesting method to use in the meetings is to ask the participants to come up with a list of needs and priorities and then actually vote to rank each one in order of importance.[33]

No method of need assessment can succeed unless those whose needs are being reviewed are closely involved in the process. As Morgan asserts, "The role of the planner is not deciding what is best for persons, but assisting individuals
in deriving their own assessments. In most cases, plans established without broad community input and support end in failure."[34]

The major concern beyond the identification of needs and preferences is the question of strategy. Where and how should the attempt to fulfill needs for facilities and services occur? One approach "reinforcement by redefinition" assumes that any concentration of elderly residents within the city possesses both an obvious and underlying social and physical structure. Urban ecologists have known for years that most concentrations of elderly residents within cities are a result of the aging process of the city.[35] Areas that have a large elderly population have usually attracted retail stores and services focussed toward the needs of an elderly population. Often these neighbourhoods, because of their geographical proximity to central city areas, are in need of protection from institutional and commercial expansion. Furthermore, their crime rates, traffic problems and fire safety needs are often much greater because of the condition of the housing stock.[36]

Cognitive mapping methodologies measure collective patterns of neighbourhood cognition in order to identify the key services and geographic areas within the neighbourhood that elderly individuals regard as essential (Regnier,
Eribes and Hanson; Regnier a). These methodologies are important and useful because they establish a geographical context within which needed services can be analysed. Regnier presents an example in the use of cognitive mapping methodologies:

...respondents were asked to outline the portion of a large-scale map that constituted the neighborhood area they used or felt was familiar. Each individual response was coded, and a synagraphic computer process created an overall consensus map that outlined the neighborhood areas selected by the greatest number of respondents. The final map highlighted areas that currently are used or seem very familiar to respondents. The result of such an analysis can mean systematic improvements, such as rerouting bus lines, or incremental improvements, such as selecting the best location for a needed senior center.[37]

HOUSING

Critical to the physical welfare and to the elderly person's social and psychological well being is satisfaction with one's housing situation. The questions asked in this area must be centred not only around "How much housing is needed for the elderly?" and "Where is the ideal location to develop housing for elderly persons?" but also "Do elderly persons prefer to live in that location?" and "Does the housing of a certain elderly person match one's particular lifestyle?"

The first set of inquiries concerns the quantity of housing (number of units and most economical location) for
the elderly in general; the second set is focussed on the quality of life of the specific elderly individual. Often times those people who plan for and study the housing of the elderly are more interested in dealing with the first set of factors, whereas the elderly people themselves are more sensitive to the latter set of concerns.[38](Mathieu)

Do the elderly desire to be segregated or integrated? Studies of the elderly have often wrestled with the problem of age integration or age segregation in housing. Proponents of integration suggest that although most elderly persons want their own accommodation, they would prefer to live near their families. The integration of elderly persons with young child-free and child-bearing persons also satisfies a long-held desire among planners to produce balanced communities. Niebanck, for example, advocates social and age integration, claiming that "physical integration of the generations fosters socializing, maintaining continuity in the lives of older persons and prevents a narrowing of interests that will cause them to age faster and withdraw more frequently."[39]

To date, however, the weight of evidence and prevailing building practice has tended to promote age segregation. As elderly persons lose work and other roles, the importance of friends and neighbours in their lives increases. Social interaction is essential to mental health, and elderly
persons are better able to form friends with persons from the same social class and age group. Several studies have concluded that where elderly persons live among other elderly people, their levels of interaction increase dramatically. (Rosenberg) The need for high concentrations of the elderly also occurs because the elderly often reject, and are rejected by other life-cycle groups. [40] (Epstein)

Much evidence, therefore, supports the view that elderly persons are most likely to benefit from a policy of segregation into a concentration of people at the same life-cycle stage. This is especially true for people, often of lower socio-economic class, who have a history of restricted activity space. (Rosow) It is also important for persons who have lived in neighbourhoods with little neighbouring activity. (Michelson) In contrast, those with backgrounds involving a wide-ranging activity pattern with friends scattered throughout the city, as well as those who are well-integrated into a neighbourhood with strong community feeling will be less likely to benefit from age-segregated housing. Working class and ethnic districts in which the extended family still survives will also house elderly persons who derive most satisfaction from integration. [41]

The debate on the integration or segregation of the elderly is still far from resolved. The White House Con-
ference on Aging concluded in 1971 that this concern is inconclusive:

The level of our current knowledge indicates that the problem is not to decide whether age segregation or integration is better, but to establish policies which will provide for as wide a choice as possible by the older person. [42]

A policy of segregated housing while preferred by some elderly will not be preferred by all elderly persons. It is crucial, therefore, that decision makers recognize the variety in life experiences of the elderly by providing a variety of choices in housing to suit the particular needs of the elderly individual.

RESIDENTIAL ENVIRONMENT

Environmental planning for the elderly often has a narrow focus upon housing itself. As Mathieu points out "Emphasis has frequently been centred on the personal life space of the elderly rather than on the broader aspect of their social life space." [43] Birren adds that:

Cities are primarily social organizations and secondarily collections of concrete, steel and wooden structures. That structure follows function can be lost sight of, and the social 'creaking and cracking', now heard in cities suggests that planners thought that function was determined by structure. The concept of life space should be used in discussing the position of the aged in cities since it implies more of the functional relations of living than does the more limited structural term housing. The city
should provide the largest possible life space for its residents, a life space that contains many options and the opportunity to express individual differences in needs and desires.[44]

The notion that our control over the manipulation of space varies with age has been expressed by other researchers. (Pastalan and Carson; Gelwicks) As energy and health declines and financial resources shrink many elderly people limit the physical space they occupy to their community. Hansen has estimated that persons over 65 years of age spend 80-90% of their lives in the domestic (home) environment.[45] The quality of the community environment, thus becomes increasingly significant in the lives of many elderly people.

In addition, Gelwicks et al note that the residential environment can act either as a facilitator or a constraint on the individual in his or her pursuit of daily activities. By providing accessibility to needed facilities and services, the environment can have important and direct influences on daily activity patterns, mobility and social interaction, as well as indirect effects on health and well-being.[46] The location decision for housing projects is of primary importance. A location accessible to the community seems to promote maintenance of a high level of activity as well as to compensate for a gradual loss of mobility and for an increasing fear of isolation.[47](Malozemoff) Regnier
Figure 2.1 contains critical distance formulations resulting from responses of 117 managers of public housing designed for the elderly (Noll). This figure is the result of a reexamination of data originally compiled by the Institute for Environmental Studies, University of Pennsylvania under the direction of Paul Niebanck. Twelve services and facilities were rated by the housing managers. The created scale categorizes responses from managers so as to create three bands of relative satisfaction. For each facility or service, the first band is the distance from the facility that registered no dissatisfaction from managers. This varied from less than one block for a bus stop location to one-half mile for a hospital, library or movie theatre. The second band represents the critical distance. Within this band, managers notice both satisfaction and dissatisfaction. The third band outlines clearly unacceptable distances. (Adopted from Noll)
remarks that site selection aids in the form of "critical
distance" formulations have been devised and the resulting
guidelines have aided significantly decisions about the most
appropriate locations for housing projects.[48] (Noll,
Newcomer; Philadelphia Planning Commission, Langford).

Other researchers have also dealt with the problem of
describing the environmental support system of elderly urban
residents. (Nahemov and Kogan; Regnier a) These effects
have resulted in the nearly consistent specification of a
core group of services. In neighbourhood terms they would
seem to make up a "critical mass" that must be present
within walking distance (3-6 blocks) in order for the
neighbourhood selected to be a viable setting for elderly
housing. The literature would suggest that the following
services be included in this critical mass:

- bus stop
- grocery store/supermarket
- drug store/variety store
- bank
- post office
- church

These few services are indeed a minimum neighbourhood
package and should not be construed as the optimum
collection.[49] Other important services, such as an out-
patient clinic (medical), department store (clothing) and
senior citizen centre (social) are also necessary. It
should be noted, though, that these services are often
visited less than once per month and are normally located
further than walking distance.[50] This finding underscores
the need for accessible transportation linking the site with other areas of the city. In cities where inexpensive public transportation is not available this list of critical services must be expanded to include the following:[51]

<table>
<thead>
<tr>
<th>medical hospital</th>
<th>library</th>
</tr>
</thead>
<tbody>
<tr>
<td>senior club/senior centre</td>
<td>dry cleaners</td>
</tr>
<tr>
<td>public park</td>
<td>luncheonette/snack bar</td>
</tr>
</tbody>
</table>

Critical distances are useful indicators of where housing should be placed in the neighbourhood. In applying this average critical distance one must realize that the surrounding environmental context varies substantially. For example, a six-block distance up a steep hill and into a high crime area is more difficult to navigate than the same six blocks on the flat, with several intervening benches on the route. Distance measurement is often subjective, rather than a reflection of actual cartographic distance. (Rivizzigno and Golledge) Although a hypothetical six-block distance can be measured, understood and applied, the actual six blocks under consideration is modified and distorted by a diverse set of social and physical delimiters and incentives.[52](Regnier b)

Some of these factors are easy to identify and have a universally positive and negative effect on the elderly person, while other factors may be perceived as hazardous or helpful only to a few individuals.[53] These incentives and
Regnier adds that:

Each of these characteristics is part of a continuum which could potentially exert a positive or negative force on the use of neighbourhood resources. Therefore, in addition to critical distance criteria it is important to consider the actual characteristics of the environment within which these distance criteria are applied. Much of the ecological data available on a fine-grained block level can be used to evaluate the quality of a site location. Coupled with critical distance criteria, this type of analysis can allow for a better match between the capabilities of elderly residents and the neighbourhood site location most appropriate for housing these residents. [55]

Although systematically derived findings on the elderly who now live in new communities are sparse, a few investigations do provide some knowledge about the features of existing new communities that the elderly find attractive. The 1972-1974 project conducted by Weiss et al draws together the most comprehensive set of information collected for new communities in the United States. [56] This is also one of the first efforts to match household responses to objective characteristics of the environment. An outstanding finding from this study is that elderly residents place highest value on the physical environment.
<table>
<thead>
<tr>
<th>SERVICE</th>
<th>IMPORTANCE</th>
<th>CRITICAL DISTANCE</th>
<th>RECOMMENDED DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus stop</td>
<td>1</td>
<td>1 block</td>
<td>adjacent site</td>
</tr>
<tr>
<td>Park/outdoor</td>
<td>2</td>
<td>1-3 blocks</td>
<td>adjacent site</td>
</tr>
<tr>
<td>Grocery store</td>
<td>3</td>
<td>1-3 blocks</td>
<td>1 block</td>
</tr>
<tr>
<td>Laundromat</td>
<td>4</td>
<td>on-site</td>
<td>on-site</td>
</tr>
<tr>
<td>Supermarket</td>
<td>5</td>
<td>4-10 blocks</td>
<td>3 blocks</td>
</tr>
<tr>
<td>Post office</td>
<td>6</td>
<td>4-10 blocks</td>
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</tr>
<tr>
<td>Bank</td>
<td>7</td>
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<td>3 blocks</td>
</tr>
<tr>
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<td>8</td>
<td>1-3 blocks</td>
<td>on-site</td>
</tr>
<tr>
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<td>9</td>
<td>4-10 blocks</td>
<td>3 blocks</td>
</tr>
<tr>
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<td>10</td>
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</tr>
<tr>
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<td>11</td>
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<tr>
<td>Senior citizen club</td>
<td>12</td>
<td>on-site</td>
<td>on-site</td>
</tr>
<tr>
<td>Bingo, cards</td>
<td>13</td>
<td>1-3 blocks</td>
<td>on-site</td>
</tr>
<tr>
<td>Arts, crafts, hobbies</td>
<td>14</td>
<td>1-3 blocks</td>
<td>on-site</td>
</tr>
<tr>
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<td>15</td>
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<td>3 blocks</td>
</tr>
<tr>
<td>Parties, socials</td>
<td>16</td>
<td>1-3 blocks</td>
<td>on-site</td>
</tr>
<tr>
<td>Lectures, discussions</td>
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</tr>
<tr>
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<td>indeterminate</td>
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<td>indeterminate</td>
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<td>indeterminate</td>
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<td>23</td>
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<tr>
<td>Bar</td>
<td>24</td>
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<td>no importance</td>
</tr>
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</table>

Housing, community facilities, social environment, work and transportation opportunities and living costs were less important as reasons for moving there. Such qualities as appearance of the neighbourhood, climate, nearness to natural surroundings, and overall planning were most important reasons for moving and received the highest marks as appreciated community features in comparison to previous residential locations.[57](Wylie)

These data suggest that planning attention to the physical design of the new community, features over which
control can be exercised, is quite properly placed. In general, the elderly do not see amenities addressed to improved health services or social and convenience needs to be compelling in their search for a new home, although they become highly valued once the elderly person has moved to the new community.[58](Wylie)

Millas in his examination of South Beach Florida, a predominantly elderly neighbourhood, established the following criteria for visual and physical ambience.[59]

**HOUSING TYPES**

Housing types which can be provided in medium density neighbourhoods should include hotels which provide for permanent as well as short term residents; retirement and apartment hotels, a broad range of rental apartments; condominium and co-operative ownership apartments; boarding and congregate housing facilities; some specialty housing such as nursing homes and publicly assisted housing for the elderly poor; duplex and townhouses, as well as single family dwellings.

Mixed land use provides for a richer visual and functional environment than rigid zoning does.

The advantages to the elderly are closer proximity and greater choice of services and social support systems.

**SCALE OF BUILDINGS**

The scale of buildings is an important consideration in the visual and physical ambience of a neighbourhood.

Tall buildings create special problems in the spaces around and between them.

Tall buildings do not contribute to a human-scaled environment. Their size makes it difficult to be compatible with smaller buildings.
Tall buildings in high density areas have a tendency to internalize facilities and to create unattractive and alien pedestrian environments around them.

A homogeneity and continuity of building appearance should be provided at the "micro" neighbourhood level. This gives the elderly a basis for developing a perception and identity of their neighbourhood.

**VISTAS**

Vistas provide visual interest and extension of space throughout a neighbourhood.

Vistas can be arranged along activity spaces as well as oriented to focal points and landmarks.

They should be designed to provide for visual excitement in the environment.

**LANDMARKS**

Landmarks are very important reference points for the elderly within their environment.

They provide orientation and identity which increases the understanding of the surroundings and potential utilization of the neighbourhood.

**BUILDING ARRANGEMENTS**

Building arrangements can provide for a variety of enclosed, semi-enclosed and suggested spatial enclosures.

A typology of building arrangements would include parallel, shallow and deep channel buildings, "H", "L" and "T" shaped buildings and their variations.

The spaces created by these arrangements can be a skilfully arranged combination of active and passive landscaped areas.

These spaces and all living areas must maximize benefits from a healthy climate through proper orientation to prevailing breezes and protection from the hot sun.
COURTYARDS

The courtyard is fundamental to the creation of a successful living environment within any building arrangement for the elderly.

Successful courtyards must not be too enclosed, must have ample openings leading to larger spaces such as the street, and must have enough doors leading to and overlooking the space.

Courtyards are enclaves of quietness and human scale.

Courtyards can have a landscape emphasis or a primary architectural expression.

The width of residential courtyards should be between 20 and 40 feet, successful courtyards generally having a width to height ratio which varies between 2:1 and 1.1.

The recognition of classical proportions and scale creates visually interesting, human spaces.

The courtyard must function as an outdoor living room and meeting place.

Landscaped courtyards can function as a community garden.

TRANSPORTATION

Transportation is the mediator between the person and much of his or her environment. As Carp notes "It determines whether the community is a useless facade or a dynamic social system."[60] Obviously transportation is important for all age groups, but for the elderly, lack of adequate transportation can have a more deleterious effect than the value of the transportation service alone -

Transportation has a "multiplier" effect. With it a couple or single person can more easily cope with adjustments or hardships that come with age. Without it, they may enter into what has been described as a "syndrome of deprivation".[61](Golant)
In short, no other group suffers more from transportation barriers.

Although access to community services and facilities can be ameliorated by transportation facilities, in many cases these transportation facilities may themselves present barriers. Recommendations for improvements in the existing transportation network focus on automobile, bus, dial-a-ride and pedestrian traffic.

A number of physiological changes impair the elderly person's ability to operate an automobile skilfully (Freeman;Libow). Difficulties are accentuated by the use of the automobile in the city where traffic patterns are more complex. Although an elderly person may possess considerable driving experience, if declines occur in their sensory and perceptual processes and motor skills, their reaction times may be slowed, increasing the probability of an accident. Due to a decline in visual acuity and peripheral vision, the elderly driver has more difficulty interpreting traffic lights and signs and in seeing cars approaching from the side.[62]

Despite the evidence that a majority of elderly are auto-dependent and not transit-dependent (Wachs and Gillan; Paaswell and Edelstein), efforts to improve the elderly driving environment have been exceedingly limited. Gordon
and Shirasawa present the following suggestions[63]:

Lighting, sign and lane improvements can make it easier for the elderly to travel by automobile.

Traffic signs should have larger lettering, greater figure-to-ground contrast and be positioned to avoid other overhead signs.

Traffic lights should have greater colour contrast and should be placed in uniform positions.

Residential streets should be better lit, especially around parked cars.

Traffic lanes should be marked with fluorescent paint and reflectors and left-turn lane arrows added.

The conventional 50 passenger bus is the most common means of public transportation and serves the largest number of elderly.[64] The majority of elderly, however, do not ride the bus or are limited in their use of buses. Elderly persons experience problems related to (1) the frequency, flexibility and complexity of service, (2) the physical design and operating characteristics of the system, (3) the completeness and accuracy of the elderly consumer's knowledge of bus system operation, and (4) the cost of service.[65] Improvements are required if the bus is to realize its potential contribution to elderly mobility.

One recommendation to improve the public bus system is increased frequency of service and expanded routes. It has been found, however, that the elderly do not increase
ridership when routing or frequency of service is increased beyond a minimum level. As well, increase in routing and frequency are expensive to implement. Another recommendation is reduced fares. Most bus systems make senior discounts available. Several empirical studies have revealed, though, that elderly patronage is not significantly affected by fare reductions (Kemp; Mullen). Although patronage may not be increased, a rationale for fare reductions is as an income supplement for low-income elderly.

Changes in bus design are increasingly recognized as having a significant impact on elderly patronage. Trip surveys have documented elderly dissatisfaction with existing vehicles. Elderly who ride the bus regularly and elderly who do not ride buses are dissatisfied with vehicle design. Specific complaints concern the lack of storage space for packages, poor lighting, steep and narrow steps, slippery floor surfaces, poor access to the door and lack of provisions for the handicapped. Some changes are expensive to implement; many, such as easy access may require new vehicles - "kneeling buses". However, some changes, such as nonslip floors and improved lighting, are easy to implement.

"Dial-a-ride" is one type of a newly developed transportation option called "paratransit". Paratransit
modes typically provide specialized transportation supplements to the conventional public bus system. Dial-a-ride offers transportation in small to medium-sized vehicles ranging from automobiles to 15-passenger vans. This service often provides door-to-door convenience, thus avoiding the danger and inconvenience of walking in unfriendly neighbourhoods, waiting at bus stops, or driving in traffic. These vehicles offer a comfortable ride, ample storage space for packages, and easier access for the frail or handicapped. But these systems are expensive because of high operating costs and often must be subsidized. If demand is low, the subsidy required may be substantial.[70] Factors affecting demand include: population density, auto availability, client income, number of frail and handicapped users, and location of common trip destinations.

Perhaps the most significant but overlooked alternative to improving mobility is to facilitate and encourage pedestrian movement. While the elderly are not unique in their reliance on walking for mobility, they constitute a disproportionately large number of the country's pedestrian fatalities. The elderly who represent about 10 percent of the Canadian population, accounted for 26 percent of the total number of pedestrian deaths in Canada during 1982.[71]

Three major types of problems are experienced by elderly persons when walking is used as a means of
transportation: (1) many destinations are too far to be reached by walking especially if bundles or packages must be carried on the return trip; (2) there are realistic fears that walking may result in injuries, from falling, vehicular accidents, or from being attacked or mugged; and (3) walking can cause considerable fatigue, physical soreness and general weariness.[72] (Carp) These potential problems originate partly as a result of physiological changes accompanying aging including, decreasing agility, endurance, and strength, declining visual acuity and peripheral vision, reduced ability to see in the dark, changes in colour perception and decreasing hearing acuity.(Libow) However, they are also a function of the quality of the walking environment, which from the perspective of the elderly person may be less than optimum.[73](Golant)

A number of interventions can be employed to improve the quality of the pedestrian environment for elderly community residents.[74](Millas)

**Vehicular Movement**

Vehicular movement in predominantly elderly neighbourhoods should be slow moving for pedestrian safety and comfort.

**Traffic Lights**

Traffic lights should be staggered to discourage fast traffic and faster moving through-traffic streets should be located at the edges of the community.
Pedestrian Crossings

Pedestrian crossings should be well marked, well lit, have a differentiated surface and pedestrian activated signals with adequate crossing time.

They can be located on corners and in mid-block locations which are usually safer.

Pedestrian Paths

Pedestrian paths should be at least wide enough for two persons to walk abreast.

They should have flat grades, have a nonskid, glare-free surface, and not be obstructed by curbs, edges, or uneven surfaces.

They should be well lit for both visibility and security and rest stops should be located at least every 200 to 300 feet.

There should be the existence of paved sidewalks leading to the several critical neighbourhood facilities, e.g. grocery store, bank and public transportation.

Transportation improvements usually occur categorically with little regard for comprehensive planning and the interrelationships between modes.[75] Trip-making by elderly people is complex and all four transportation options (private automobile, public bus, dial-a-ride bus, and walking) must be considered in relation to one another. Wachs stresses the possibility of implementing a variety of transit services according to the specific needs of the elderly lifestyle groups. This he notes becomes especially important when one considers the travel demands of future elderly generations. A recent study completed in Los Angeles county showed that there has been a strong and consistent trend toward suburbanization of the elderly.
population since 1940. If present trends continue, the elderly in coming decades can be expected to be even more decentralized within urban areas and characterized by even more diverse lifestyles than the elderly population of today. Wachs concludes that:

To adequately serve the transportation needs of the elderly in the future is a challenge which cannot be met if we assume that the elderly will be a homogeneous group with common transportation requirements.

In summary, this chapter has provided a brief literature review of past and present practices of community planning in Canada and the United States regarding the elderly. Until recently the elderly were often neglected by society and this was reflected in many community plans which were based upon the neighbourhood unit theory. Although the needs of the elderly are not basic to the theory, certain needs of the elderly are met in the conventional view of neighbourhood such as nearness to community facilities. Despite these similar requirements, elderly individuals often have needs and activities which are not met in the conventional neighbourhood. Three types of prohibitions in zoning law have especially affected the elderly population: prevention of conversion; prevention of special housing types; and prevention of mixed land uses. In order for the elderly to affect planning policy it is imperative that the planner, first, identify needs and preferences of the
elderly residents and second, establish a strategy of where and how the attempt to fulfill needs for facilities and services should occur.

It has been further revealed that crucial to the physical welfare and to the elderly person's social and psychological well being is satisfaction with one's housing situation. The debate on the integration or segregation of the elderly is far from resolved. However, much evidence thus far supports the view that elderly persons are most likely to benefit from a policy of segregation into a concentration of people at the same life-cycle stage. As well, environmental planning for the elderly often has a narrow focus upon housing itself. Emphasis has frequently been centred on the "personal life space" of the elderly rather than on the broader aspect of their "social life space".

In addition, it has been argued that the residential environment can act either as a facilitator or as a constraint on the elderly individual's pursuit of daily activities. The actual characteristics of the environment, for instance, must be taken into consideration when distance criteria are applied. The resulting guidelines have aided significantly decisions about the most appropriate locations for housing projects as well as the most important types of facilities and services required by elderly residents.
Finally, it is asserted that transportation is the mediator between the elderly person and much of his or her environment. Although access to community facilities and services can be ameliorated by transportation facilities, in many cases these transportation facilities may themselves present barriers. Recommendations for improvements in the existing transportation network center upon the automobile, bus, dial-a-ride and pedestrian traffic.
CHAPTER THREE

Introduction

This chapter outlines White Rock's characteristics - its history, physical features, community services, population and economic base. In order to gain a clear understanding of the special environmental requirements of White Rock's elderly it is essential that one have knowledge of the community's characteristics. As Langford notes "it is the interaction of these local factors which creates unique problems and influences the solutions to these problems."[78]

Historical Background

Thousands of years ago the last ice age deposited on the beach a large white rock that inspired the City's name. This rock is also the subject of a romantic legend of the local Indian people.[79] The modern history of White Rock started about 1886-7 when the land constituting the original townsite was homesteaded. In October, 1890, it was subdivided and placed on the market. The community of White Rock, though, did not emerge until the building, in 1907, of the Great Northern Railway line. The Railway followed the coastal route from Blaine, Washington, around the Semiahmoo peninsula to the Fraser River where it crossed into New Westminster. The new tracks opened in 1909 and the trains soon brought settlers to the community.[80]
In the summer of 1910 a syndicate of New Westminster men took over the original townsite and promoted White Rock as a year-round residence as well as a resort area. With a permanent population of about 200 people the first school opened in 1911. One of the few industries attracted to White Rock was the Campbell River Lumber Mill. The Mill, which opened in 1913, continued operating until late in the 1920's when it ceased being economically viable. By 1915, the City was connected to electricity from the mill and the combination of streams and natural wells provided enough water for the establishment of the White Rock Waterworks.

Throughout the 1920's and 1930's White Rock continued to grow as a summer resort with vacationers commuting from New Westminster and Vancouver. By 1928 the vacationers had left behind enough refuse that a garbage by-law was passed for the White Rock area by the Surrey municipal council. There was a permanent population of about 1,000 by 1937. In 1940 the King George Highway was opened to Blaine making White Rock even more accessible, particularly by car.

Meanwhile, the municipality of Surrey had grown such that by 1947 it was decided to increase the number of wards to seven from five, with White Rock being ward seven. This increased a call for secession amongst White Rock residents and reflected a long standing dissatisfaction with the
Surrey municipal council. A plebiscite calling for the secession of White Rock, held during the 1948 Surrey municipal election failed to gain the required majority. Under Surrey's new ward system, White Rock became identified as ward seven, with its own councillor and assessment values. The year 1954 saw the opening of a forty-five bed hospital to serve White Rock.

The fight for independence, nonetheless, continued and on March 28, 1957, Bill 58 (allowing for the incorporation of White Rock as a city) received final reading in the provincial legislature. On incorporation, April 15, 1957, a provisional council appointed Charles Defieux the new City's mayor. The purposes of the interim council included: the establishment of an administration; the maintenance of public works; adoption of Surrey by-laws; drafting of zoning regulations; and a town planning program. With an estimated population of 5,000 and 3,808 eligible voters, William Hodgson became White Rock's first elected mayor a few months later. Within a relatively short period of time, therefore, White Rock had evolved from a resort town to an incorporated city.

Physical Characteristics

The City of White Rock is unique in many ways in comparison with other cities in the Lower Mainland of British Columbia. It has, for instance, one of the most
moderate climates in Canada with average summer temperatures of 70°F to 72°F and winter temperatures averaging 40°F to 42°F. The average annual rainfall is 41 inches. Relatively small in size, about four kilometers across and one kilometer in depth, the community is bounded by Semiahmoo Bay on the south and the municipality of Surrey on three sides. The sloping topography in many parts of the City provides spectacular views of Semiahmoo Bay, Vancouver Island, the Gulf Islands and Mount Baker in the United States.

The City can be divided into three major areas: West, Centre and East. With elevations ranging from sea level to 275 feet, White Rock Centre is bounded by Marine Drive and the seafront (south), 16th Avenue (north), High Street (west) and Best Street (east). White Rock Centre includes the City's business core plus the Johnston Road shopping area from Thrift Avenue to Pacific Avenue. This area has goods and services that are not available in the town centre, such as automobile repair and tires, building supply and tool rentals. (See Land Use Map)

An area consisting largely of single family detached housing surrounds that of apartment and multi-family residential units. The apartment core area includes Blackwood Street (west), Merklin Street (east), North Bluff Road (north), and Buena Vista Avenue (south). It is in this
relatively flat area that the majority of White Rock's elderly reside. This area in turn borders the town centre and Johnston Road commercial area. Medium density residential housing dominates the slope area to Marine Drive where the main land uses are commercial and apartment/multi-family residential. Paralleling the water-front is the Burlington Northern Railway. White Rock Centre also includes such municipal services as the Municipal Hall, the White Rock Fire Station, the White Rock Detachment of the R.C.M.P., Semiahmoo Elementary school, the Legion Auditorium, Centennial Park, a library, a museum, art studio and gallery.

Elevations from sea level to 285 feet exist in White Rock West.[91] It is bounded by the seafront and Marine Drive (south), 16th Avenue (north), High Street (east) and Bergstrom (west). This is the largest single family residential area of the community. There is some medium density residential housing but single family detached housing dominates the area. There are two parks including Coldicutt Ravine. One small commercial area exists at North Bluff Road and Nichol Road.

White Rock East is bounded by 154th Street (west), 160th Street (east), 16th Avenue (north), and the seafront (south). Here, elevations range from sea level to 250 feet.[92] Once again the dominant land use is single family
LAND USE PLAN

LOW DENSITY DETACHED RESIDENTIAL
MEDIUM DENSITY DETACHED OR ATTACHED RESIDENTIAL
APARTMENT/MULTI-FAMILY RESIDENTIAL
OPEN SPACE/RECREATION
PUBLIC/INSTITUTION/UTILITY
COMMERCIAL
TOWN CENTRE COMMERCIAL

NOTE: Street end park locations shown on the Public Open Space and Recreation Plan
detached residential housing. Near the waterfront the land uses include medium density, apartment/multi-family residential and commercial development. Municipal services in this section of White Rock are the Senior's Activity Centre (at Kent Street and Russell Avenue), Peace Arch and District Hospital, Peace Arch School, Buena Vista Park, Semiahmoo Park as well as several small commercial areas possessing locally oriented stores.

The nearby community services of White Rock are many. They include the Semiahmoo shopping mall (North Bluff Road and 152nd Street (Johnston Road)), Ocean Park Library, Ocean Park, Crescent Park, Crescent Beach Marina, the Glades (5 acre woodland garden) Redwood Park, Sunnyside Park, Peace Arch Provincial Park, Peace Portal Golf Course and Hazelmere Golf and Tennis Club. In short, White Rock's unique physical characteristics plus its variety of amenities make the community in many ways a viable place to live.

Demographic Profile

White Rock has experienced continuous population growth since its incorporation with a community of 5,000 people. It increased to 13,551 people by 1981.[93] A documented trend of outmigration of young families from urban centres to the suburbs, has not affected White Rock. This is due in large extent to its small size and relatively high level of development. White Rock's population is skewed in favour of
Fig. 2.4

POPULATION PYRAMIDS 1976-81

Source: Statistics Canada
the over 55 age group 48% of the population was over 55 in 1981 compared to 43% in 1971.[94] The age structure has not changed significantly since 1960. Since 1976 there has been a striking increase in the over 70 age groups: males 22.2%; females 30.2%.[95] There has been also a rapid increase since 1976 in the 25-44 year age group. This trend might suggest that couples who have both been in the labour force for a few years are moving to White Rock regardless of extended commuting distances in order to buy into the older single family housing market.[96] Conversely, there are few children living in White Rock particularly those under 10 years of age. In fact, between 1976-1981 there was a decline in the number of children between 0-14 years of age while there was only a slight increase in the number of secondary school children.[97]

Due to the large percentage of the population which is over 55, White Rock has a high generalized mortality rate, one that is about twice the Greater Vancouver Regional District average. However, the number of age specific deaths is lower than the provincial or regional rates, possibly due to such factors as better access to health facilities, medical services and more exercise.[98]

The marital status statistics are similar to that of the age structure; the large increase in the number of widowed persons is a result of White Rock's large elderly
population. The increase in the number of single individuals over 15 can be attributed to the overall increase in population between 25 and 44 and by the increase in single parent families in British Columbia.[99]

According to the 1981 census the primary ethnic group of the community is British (75%) with smaller numbers of German, Scandinavian and French origin.[100] From the total population of 13,551 English is the mother tongue amongst 11,355.[101] The place of birth is Canada for 9,095 with 4,090 of this number born in B.C.. For the remaining residents their place of birth is the U.K. for 2,040, other European countries for 1,040 and the U.S. for 495.[102] The religious background of the community is dominated by Protestants - 8,375 as compared to 1,890 Roman Catholics.[103] Of the population 15 years and older (11,525) only 1,615 have their highest level of schooling as less than grade nine.[104]

The particular demographic profile of White Rock is also reflected in the community's household and family structure. The increase in the number of rented units and the decrease in the percentage of owned units may primarily be the result of the increase in the number of multiple family rental units. All forms of housing have increased in numbers since 1976. As of 1981, single-family detached housing continued to be the predominant form of housing.
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<td>+24.7%</td>
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<tr>
<td>% owned 1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% owned 1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single (15 years and</td>
<td>3450</td>
<td>3685</td>
<td>235</td>
<td>+6.8%</td>
</tr>
<tr>
<td>older)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single (never married)</td>
<td>1790</td>
<td>2160</td>
<td>370</td>
<td>+20.7%</td>
</tr>
<tr>
<td>Married</td>
<td>7255</td>
<td>7595</td>
<td>340</td>
<td>+4.7%</td>
</tr>
<tr>
<td>Widowed</td>
<td>1475</td>
<td>1760</td>
<td>285</td>
<td>+19.3%</td>
</tr>
<tr>
<td>Divorced</td>
<td>320</td>
<td>510</td>
<td>190</td>
<td>+59.4%</td>
</tr>
</tbody>
</table>
### TABLE 2.3

<table>
<thead>
<tr>
<th>Household Type</th>
<th>1976</th>
<th>1981</th>
<th>Change</th>
<th>%</th>
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<tbody>
<tr>
<td>Husband-wife families</td>
<td>3380</td>
<td>3465</td>
<td>85</td>
<td>+2.5%</td>
</tr>
<tr>
<td>Single-parent families</td>
<td>265</td>
<td>370</td>
<td>105</td>
<td>+39.6%</td>
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</table>

The increase in the number of single parent families reflects a general national trend.

<table>
<thead>
<tr>
<th>Average Number of Children Per Family</th>
<th>1976</th>
<th>1981</th>
<th>Change</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>0.7</td>
<td>0.6</td>
<td>-0.1</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of Males</th>
<th>1976</th>
<th>1981</th>
<th>Change</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>245</td>
<td>235</td>
<td>-4.1%</td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td>275</td>
<td>240</td>
<td>-12.7%</td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td>325</td>
<td>305</td>
<td>-6.2%</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>340</td>
<td>350</td>
<td>+2.9%</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>430</td>
<td>405</td>
<td>-5.9%</td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>730</td>
<td>830</td>
<td>+13.7%</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>475</td>
<td>580</td>
<td>+22.1%</td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>525</td>
<td>505</td>
<td>-3.8%</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>725</td>
<td>715</td>
<td>-1.4%</td>
<td></td>
</tr>
<tr>
<td>65-69</td>
<td>505</td>
<td>530</td>
<td>+5.0%</td>
<td></td>
</tr>
<tr>
<td>70+</td>
<td>1125</td>
<td>1375</td>
<td>+22.2%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5695</td>
<td>6070</td>
<td>+6.6%</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Age of Females</th>
<th>1976</th>
<th>1981</th>
<th>Change</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>245</td>
<td>245</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td>235</td>
<td>230</td>
<td>-2.1%</td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td>335</td>
<td>260</td>
<td>-22.4%</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>350</td>
<td>375</td>
<td>+7.1%</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>465</td>
<td>450</td>
<td>-3.2%</td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>700</td>
<td>860</td>
<td>+22.9%</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>465</td>
<td>590</td>
<td>+26.9%</td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>560</td>
<td>575</td>
<td>+2.7%</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>1100</td>
<td>1065</td>
<td>-3.2%</td>
<td></td>
</tr>
<tr>
<td>65-69</td>
<td>670</td>
<td>785</td>
<td>+17.2%</td>
<td></td>
</tr>
<tr>
<td>70+</td>
<td>1575</td>
<td>2050</td>
<td>+30.2%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6800</td>
<td>7485</td>
<td>+10.1%</td>
<td></td>
</tr>
</tbody>
</table>
However, if the number of multiple family units that have been approved since the 1981 census were built, the percentage of single family detached units would fall below 50%.\[105\]

The reduction in number of persons per household (1976 - 2.2 to 1981 - 2.0) reflects a national trend toward smaller families. In White Rock's case, this is particularly a result of the large number of elderly. By comparison, the average household size in B.C. is 2.7.\[106\] All categories of household size that can be considered as having children at home declined since 1976. The major increase has been in one person households again reflecting the age of the population and the number of multiple family housing units. In 1981, 35% of White Rock's dwellings were occupied by single individuals.\[107\] The small number of children per family (0.6) is much more pronounced in White Rock than in other communities. For example, provincially, the average number of children per family is 1.2.\[108\]

The 1981 census reveals a high concentration of elderly in White Rock's population. There is an indication that this trend most likely will continue in the future. This trend results from:

(a) a general aging of residents who have lived in the City for a long period of time and who will continue to desire to live there.
(b) the influx of elderly individuals who will continue to perceive White Rock as a desirable place of retirement.

(c) the availability of multiple family dwellings to suit the needs of many elderly residents. It should be pointed out, however, that analysis of 1976 census data showed that a significant number of retirees who came to White Rock purchase traditional single family homes. Irrespective of available housing type, it would appear that retirees will continue to come.[109]

The continued aging of White Rock's population indicates that demands for facilities and programs that serve the elderly residents will increase.

Economic Base

In 1981, 2920 males and 2,455 females over the age of 15 were employed.[110] Conversely, 180 males and 180 females were unemployed with the unemployment rate highest between ages 15 to 24 for both males and females (11.6% and 12.4% respectively).[111] The major occupational groups for males include: construction trades, sales, managerial administrative, machining, product fabricating assembling and repairing, and clerical. For females the major occupational groups are: clerical, service, sales, medicine and health, and technological, social, religious, artistic related occupations. The average income in 1980 for those 15 years and over was $16,365 for males and $8,747 for females.[112] In addition, the average income of those who worked was $17,743 for males and $10,029 for females.[113]

The main divisions of the community's economy include: community business and personal service, trade,
transportation and communication, and finance, insurance and real estate. Growing in importance to the community's economic growth is tourism. Awareness of White Rock as a summer resort area has heightened since 1979 when it became home of the Canadian Open Sandcastle competition. There exists, however, a high rate of non-participation in the labour force due to the high percentage of retired people.[114]

This chapter has outlined White Rock's unusual characteristics. Of particular note are the City's small geographical size, varying topography, variety of amenities and high proportion of elderly residents.
CHAPTER FOUR

Introduction

This chapter outlines the methodology employed in the study. Further, findings from the group interview sessions with elderly residents plus interviews with the local mayor and planner are presented.

Methodology

The approach taken in this study consisted of three steps. The first step was an examination of the existing literature on the elderly with particular attention paid to the special environmental requirements of the elderly and the role of urban planning in communities with a substantial proportion of elderly residents. The second research task included the collection of information at the municipal level to establish a profile of the study site. The third and major step involved focussed group interviews with elderly residents to establish their special environmental requirements for independent living. Topics in the interview sessions included: residential environment - housing, landscaping, street lighting, facilities and services - transportation, health care, recreational, social and commercial; spatial arrangement - walking distances to facilities and services, design of streets and sidewalks; and the role of local government - attitude towards elderly
residents, how and in what ways the environmental requirements of the elderly residents are accommodated. As well, there were interviews with the local mayor and planner to obtain their response to the group interview results.

As earlier noted, the focussed group interview with elderly residents was the major research task. Constraints of time and finances dictated that the focussed interviews include three groups of four elderly residents plus one pre-test group. With the help of Jane Askin, director of White Rock's Seniors'Activity Centre, a list was established of community groups concerned with the elderly. These groups included: a widows group, Active Health, Drop-in Centre, Seniors'Activity Centre, Council of Women and the Old Age Pension Organization. The leaders of these groups were contacted by phone and they, in turn, provided me with the phone numbers and addresses of potential participants. Each potential participant was mailed or presented with an outline of my study, a list of the interview questions and a consent form to sign that had been approved by the University of British Columbia's Ethics Committee. The pretest group was established with the help of my grandfather - Reg Biggar, a White Rock resident who contacted potential participants. There was an equal number of female and male participants and the ages ranged from 65 to 87.
The groups were not intended to be representative of the whole elderly population in White Rock. In short, an exploratory approach was taken and not a scientific inquiry. The interview sessions were held in the morning at an apartment building of one of the participants. To reduce interviewer bias the focussed group interviews were led by Jane Askin. I was present during the interview sessions to see that they ran smoothly. The interviews were recorded on tape to maintain an accurate account of the proceedings and all replies were strictly confidential.[115] Results of the study are to be made available to the respondents as a copy of the thesis will be at City Hall, the Library, and the Seniors'Activity Centre.

RATIONALE FOR METHODOLOGY

I will now explain the rationale for choosing the focussed interview technique, its characteristics, advantages and limitations. Where direct questioning is necessary in field work, three basic instruments are used: the questionnaire, the interview schedule and the interview guide. Goode and Hatt define these as follows:

Questionnaire refers to a device for securing answers to questions by using a form which the respondent fills in himself.

Schedule is the name usually applied to a set of questions which are asked and filled in by the interviewer in a face-to-face situation with another person.
An interview guide is a list of points or topics which an interviewer must cover during the interview. [116]

While methodologists recognize more than three types of instruments along the continuum of rigid to flexible questioning, the above basic types exemplify, through the postal questionnaire and the interview schedule, instruments that are highly structured and normally completely rigid. [117] Unfortunately, the structured questionnaire and schedule cannot be made into faultless instruments. Most of the steps that can be taken to eliminate many of the faults have the tendency to make these instruments rigid. [118] They are, consequently, most useful in investigations which look for quantifiable information. Where one wants more qualitative information the interview guide is used. Its greater flexibility makes the interview guide more suited for eliciting such material and for probing more complex issues. The interview guide is the tool used with the focussed interview. [119]

The basis of all interviews is the question. Kahn and Cannell have suggested that the interview must serve two purposes: (1) it must translate research objectives into specific questions whose answers will provide the necessary data for hypothesis-testing; and (2) it must also aid the interviewer in motivating the respondent so that the necessary information is obtained. [120] It is to these ends
that the question becomes the focus around which the interview is constructed. Major considerations include: wording of the question; open-ended questions; and sequence of questions.

The question must be worded so that it is understood by the respondent in the way that the researcher means it to be. Words that are ambiguous should either be avoided or qualified by specifying their frame of reference. In short, question wording requires that the respondent understand the question and that it has one and the same meaning for each respondent unless the researcher desires to assess differentials in meaning.[121]

Questions in a focused interview are open-ended rather than fixed alternative. In a fixed-alternative question, respondents are offered a set of answers from which they are asked to choose the one that most closely represents their views. Open-ended questions are not followed by any kind of choice and the respondent's answers are recorded in full. The virtue of the open-ended question is that it does not force the respondent to adapt to preconceived answers. As Nachmias explains "having understood the intent of the question, one can express one's thoughts freely, spontaneously and in one's own language".[122] In addition, "open ended questions are flexible; they have
possibilities of depth; they enable the interviewer to clarify misunderstandings; and they encourage rapport".\[123\]

In an interview, a series of questions is presented to respondents. The questions may be presented at random or in a systematic manner. According to Machmias, one pattern of questioning that has been found to be appropriate for motivating respondents to cooperate and for eliciting fruitful information is the funnel sequence.\[124\] In the funnel sequence, each successive question is related to the previous question and has a progressively narrower scope. When the objective of the interview is to obtain detailed information and the respondent is motivated to supply the information, the funnel approach helps the respondent recall details more efficiently. Furthermore, by asking the broadest questions first, the interviewer can avoid imposing a frame of reference before obtaining the respondent's perspective.\[125\]

As Zeisel points out, focussed interviewing has the following characteristics:

1. Persons interviewed are known to have been involved in a particular concrete situation.

2. The researcher has carried out a situational analysis to provisionally identify hypothetically significant elements, patterns and processes of the situation. The researcher has arrived at a set of hypotheses about what aspects of the situation are important
for those involved in it, what meaning these aspects have, and what effects they have on participants.

(3) On the basis of this analysis, the investigator develops an interview guide, setting forth major areas of inquiry and hypotheses.

(4) The interview about subjective experiences of persons exposed to the already analysed situation is an effort to ascertain their definitions of the situation.[126]

Asking the questions, however, does not guarantee that one will get any answers or that one will get answers that are usable. Probing can be defined as "using a technique that leads the respondent to elaborate answers in areas that are not clear to the researcher".[127] In order to probe an answer, the researcher has several possible approaches available. One technique is to sit and wait at the apparent end of an answer. By sitting and waiting (by acting as if you expect additional information) you are inducing the respondent to add material that he or she might not add otherwise. Another probe would be to take the last sentence of the respondent and turn it into a question. Once again, the researcher is forcing the respondent to elaborate on his or her answers and thus one is receiving more information than if the probe was not employed.[128] Another technique involves giving a noncommittal response at the end of the respondent's statement. Lastly, there is the "negative" probe. In an interview situation in which the researcher
feels tested by the respondent, one might want to respond in a negative manner after an outrageous statement. Such an approach may, if not used carefully, effectively end the interview. Conversely, the negative probe may show the respondent that you "mean business" and that it is time to answer the questions. The decision to use a negative probe is made usually when all other techniques have failed. In brief, while it is essential to use probes carefully, it is also important to probe when necessary. [129]

In the execution of a focused interview the researcher must remain objective. There are, of course, problems for the researcher even when an attempt is made to remain totally objective. The problem area is called "unintentional" or "unconscious" bias. In the same way that one biases questionnaire research, one could bias an interview by asking questions in a certain way. [130] For example, the researcher could ask only the questions that will elicit answers on particular topics rather than asking questions on all relevant topics. By restricting the questions to certain areas one will be able to successfully (if unconsciously) bias the results. As well, one can suggest answers to the respondent by the manner in which the question is presented. In this instance, the interviewer asks a question and then adds, "you do agree, don't you?" In this situation one is biasing the research because leading questions are being asked. The interviewer is
asking a question that leads the respondent to an answer, rather than allowing the respondent to find his or her own answer.[131]

Finally, while an interviewer can be trained with a strong sense of purpose about the research, one can never prevent the interpretation of the answers in his or her own unique way.[132] What may seem a straightforward answer, may be changed into something completely different by the interviewer as he or she writes it down during the interview situation. An interviewer may - subconsciously - find an answer too embarassing or too difficult to accept and thus, unconsciously, change the answer as it is being written down. An interviewer may on another level alter the wording of an answer as it is being written not out of any malice but simply in error.[133] The interviewer might, for instance, have difficulty with a person's accent and misunderstand the words. Misunderstanding the words may lead to misrepresentation as notes are being taken. Whether the mistake is made intentionally or unintentionally, the mistake will produce biased research. One imperative for the interviewer, therefore, is to be careful when recording answers.

Not only must the researcher be careful when recording answers, he or she must also be certain that the probes used are neutral, except in the case of the negative probe.
Interviewing as Runcie explains "is not simply listening and recording the answers to questions that are put to respondents."[134] As the researcher is recording the responses to the immediate question the interviewer must be interested enough in the answer to the present question to probe if necessary. Simultaneously, the interviewer must recall previous answers to see if there is information that has already been covered, or that requires deeper probing. In addition, the researcher must be thinking ahead to see if the respondent is now answering questions that will be dealt with later in the interview.

In a group, interviewers use many of the same probes as they do with individuals. As Zeisel comments, "The researcher must keep the flow of discussion moving, remind people of specific details one is interested in, and maintain sufficient range. Sometimes the fact that others are in the room makes an interviewer's task easier."[135] Group interviewing has the advantage of allowing people more time to reflect and to recall experiences. Something that one respondent mentions can spark memories and opinions in others. Moreover, group interviewing, in allowing moments of not having to talk and being able to listen to others, allow each person to rethink and change any initial account that upon reflection seems in need of amplification, qualification or revision. As well, respondents may not
agree with one another on matters of opinion, providing instances of interchange between contrasting perspectives.[136]

Focussed group interviews also present particular problems. One major problem with group discussions is that they are not a truly representative sample of the population under study. Even though care may be taken to include a member of all possible sub-groups, the small number of respondents increases the chance that all views will not be heard.[137] A drawback for analytic purposes is that group interviews cannot be standardized. In other words, in no two groups will issues be discussed in exactly the same way. This aspect of the variance between groups makes it impossible to compare and contrast accurately various group opinions in a scientifically approved manner because they depend entirely upon the subjective interpretation of the person writing the reports.[138]

During the group interviews, problems stem from the "leader effect" - namely, that in most groups of people one or two persons will inevitably emerge as more dominant, or more opinionated.[139] Such a person can easily take over an interview, divert it from its focus and inhibit others from talking. The task of the interviewer is to prevent this from happening without damaging the rapport with the group and interrupting the flow of the meeting. One remedy
is to appeal for equal time. When one person takes over an interview, that person and others usually know it. It is the interviewer's job to appeal to the person's sense of fair play in order to give others a chance to talk:

Interviewer: Good point. Perhaps we should hear some other views now.

Another solution is to pay attention to body language. Reticent respondents in a group often remain quiet, leaving the floor to the self-chosen leader. This does not, however, mean that quieter interviewees have nothing to say; they just do not create their own openings in the conversation. So it is up to the interviewer to create openings for them when he notices they want to say something. Cues that they have an opinion to express include:

A respondent sitting forward on his chair, looking at you intensely. A respondent raising her hand as in a classroom. Two respondents chatting quietly probably expressing minority opinions to each other.

A third remedy is to ask for a vote. When discussion has been limited to several respondents, or when more respondents have contributed but it is unclear who holds what opinion, the interviewer can ask for a vote on an issue. But first the interviewer must show that he or she has been listening attentively by clearly stating the
opinion or alternative opinions the respondents are to vote on:

Interviewer: Valerie has stated that the most serious problem in White Rock is its poor transit system. Which of you agree with this and which disagree? (This type of question in part challenges respondents to contribute)[142]

In short the approach to be taken in a focussed interview situation (whether one on one or in a group) is that of being a good listener. As Runcie explains:

The good listener is one who can bring the respondent out of his or her shell and obtain the information required for the research project. At the same time, the interviewer must anticipate information to come - as well as questions to come - and must be thinking about answers to questions already asked. The interviewer must be alert to the situation, to changes in the situation, and to changes that must be made in the situation. By always being "on top" of the situation the interviewer has a better chance of conducting an effective interview.[143]

Study Findings

This section presents findings from the focussed group interviews with elderly White Rock residents plus the interviews with the local mayor - Mr. Hogg and the planner - Mr. Janczewski. The issues and concerns raised in the interview sessions centred upon four major categories: (1) residential environment; (2) facilities and services; (3) spatial arrangement; and (4) role of local government.
GROUP INTERVIEW FINDINGS

Opening Question

In answer to the question "What would you say were your three most important reasons for moving to White Rock?" the elderly interviewed listed scenery, climate, geographic location vis-à-vis Vancouver and Washington State, closeness to family, number of people in the same age group, and the lack of industry and air pollution.

Residential Environment

One concern expressed regarding the residential environment is the amount of litter particularly on the major commercial streets - Johnston Road and Marine Drive plus the beach area. A second concern is unleashed dogs on the beach and in the residential areas. Loud music from car stereos and radios is also noted. As one elderly resident states:

...With the advent of the 7-Eleven it accumulates a lot of young people who blast their hi-fis to the sky at 2 o'clock in the morning. And you get that on the beach too on the weekends... If there was a fire or police car trying to get through they would not hear it...

Another issue is the lack of control in residential planning. One respondent mentions that "there always seems to be a fight going on at City Hall regarding the height of someone's house or the elimination of someone's view of the..."
water." The answer was overwhelmingly positive to the question "Do you feel comfortable living in your neighbourhood at its present density level?" As well, all respondents feel safe walking alone in their neighbourhood during the day. After dark, however, most do not feel safe walking alone. This is markedly so amongst the elderly women.

Several respondents are not satisfied with the landscaping in the community. Vacant lots are viewed as an eyesore and as a loss of City tax revenue. One person explains that "we have been looking at that fence around White Rock Square for 2-1/2 years now and that should have been torn down long ago." It is suggested that a clause in the building permit ought to provide that the developer must perform within a certain period of time. Finally, many respondents observe a lack of sufficient street lighting in their neighbourhood. The elderly residents interviewed perceive that their community would be safer and vandalism would be reduced if the streets were properly lighted. One respondent recounts the following incident:

...When you drive in at night ... I get out of that car, I get all my keys ready and run like mad to the side door because it is open around the side. Anybody could be hanging about behind the trees. There is not a light down that back lane and it is so busy with all of those apartment blocks.
It was also pointed out that the lack of street lighting particularly near bus stops discourages elderly people from utilizing the bus in the evening.

**Facilities and Services**

In response to the question "If you had to pick one problem that you consider the most serious concerning local facilities and services, what problem would that be?" it was stated that: (1) "the activity centre does a good job but it is really too crowded... they should have some additional facility", (2) there is a "lack of areas for social contact particularly the lack of good hotels for visitors... and the lack of places that serve inexpensive and nutritionally sound meals", and (3) that "there is no home delivery of groceries." The community facilities and services that are used on a regular basis include the Senior's Activity Centre, beach, library, lawn bowling field, curling rink, swimming pool and art gallery.

Much discussion centred upon the public bus system. The following quotes are illustrative:

The "handi-dart" bus system is awkward and not convenient to use. There is a lady with poor eyes going down to the hospital and rather than make a date with the "handi-dart" we just drove her over.

and

Two buses run the full length of Finlay Street all up one behind the other... It does
not make sense when you have older people in between who could use a bus.

and

The bus stops are too high for mounting and descending... Also the bus driver pulls up within about two feet of the curb. When you get off you do not know whether to step on the street or make a jump for the sidewalk and at our age... you are asking for a broken leg... and once you are on the bus they [bus drivers] do not wait until you are seated.

and

I think they are doing a wrong job in putting those great big buses on. If they had smaller buses with 20-25 people then I think maybe people would use them more. But I think it is ridiculous to have those great big buses around the town. The small ones around the town would be ample.

and

The bus to Vancouver is often overcrowded to the extent that you stand for a long time... There are not enough buses coming out to White Rock from Vancouver and vice versa.

Most respondents find the local health care facilities to be sufficient for their needs. A couple of respondents closer to the situation, however, believe that the health care facilities are insufficient. According to one respondent:

In respect to the Lab and X-ray and physio services they are pretty awkward at the hospital because they are competing with the in-patients and right now there is certainly a lack of waiting room space... the cancer treatment facilities are certainly markedly awkward of access, it is dreadful really. The provincial speech and hearing facilities are limited so that it is a year and a half
before you can get an appointment. And homecare is diminishing and this is not good. There have been more cut backs recently in the number of nurses and nursing hours.

The elderly residents interviewed find the commercial services in White Rock to be sufficient for their needs particularly if Semiahmoo mall is included. In answer to the question of whether the public recreation facilities are sufficient or insufficient it is mentioned that there are not enough sheets of ice to meet the demand for curling and not enough fields for lawn bowling. The idea of a boardwalk along the beach is also presented:

I think people will go out and walk around if there is somewhere to walk but we don't have anything. Also I would like to see a walkway all along near the tracks, the whole way of the beach so people could walk the beach... It is surprising how many people will talk to one another when they are walking in an area like that. And that creates a friendliness and this is what all the more lonesome people need somewhere where they can have someone to talk to. For a lot of people living alone this is the biggest thing they have. They have no one to communicate with and so they are looking for places to go to find this.

Spatial Arrangement

In general the elderly residents interviewed find that the various types of housing in White Rock cater to the needs of the elderly residents. In answer to the question "Are most of the community facilities and services that you use within walking distance?" the mal-location of the Seniors' Activity Centre is noted several times. The
following account is typical: "Unfortunately it is just a little far from town. The Centre should be in the town centre hall location-wise."

Several respondents observe that there is a lack of adequate sidewalks in the community. One elderly person explains:

it is a car oriented town and this is wrong when there are so many pedestrians.

And another states:

For me, again, personally because of the area I live in there are no sidewalks going up and down the hill. I could hack it if there was a sidewalk but I just can't do it. So I do not go out I stay at home.

Concern is also expressed about the uneven grade of the sidewalks along Johnston Road as well as cyclists riding on the sidewalks. At Thrift Avenue and Martin Street it is suggested that a traffic light be installed because "that is where a lot of traffic turns, but it is a nightmare getting across sometimes."

Much discussion included the decision to narrow Johnston Road:

Particularly during the good weather there is just an overload of traffic on Johnston heading down toward the beach. It is really not White Rock traffic.
and

The equivalent arteries have not been established... they may have been created but they don't work. And so it results in Johnston being a bottleneck.

and

The White Rock - Surrey border seems to present difficulties... and certainly there is not the same thinking on the view of traffic volume. In White Rock it is anticipated to be a certain volume on that street yet on the other side Surrey does not have the same view. So there is a collision of planning point of view all along that Surrey - White Rock boundary.

There is also the problem of recreation vehicles parked on residential streets. As one elderly resident points out:

Parking of recreation vehicles on the street is a problem. They certainly might cause accidents and it's most inconvenient because you get one of those big buggies behind you or in front of you, you cannot see - blind spots both ways. There is a great deal of that in this community. People will leave their recreation vehicles on the street for months at Prospect and Martin... It is unfair. The City should have some ordinance that that vehicle cannot stay longer than two months. They are also an obstacle for people parking.

Role of Local Government

The responses to the question "If you had to pick one problem that you consider the most serious with respect to the local government what problem would that be?" include the following:

The intrusion of other government interests into those matters affecting White Rock
citizens. White Rock being such a small town and the services are being created in Surrey and designed to serve a different clientele than if they were within three or four blocks further south in White Rock.

and

The City does not have the money. They do not have the income to do the things that are necessary and they don't get a big enough cut from the Province of B.C. to assist them. We are such a small square acreage town. We are a legal city but we are a little small town in comparison to getting assistance from B.C. to help. And because this area is an area where people come from miles to the beach in the summer time we have an awful lot of daytime tourists... But the City of White Rock does not have the money to take care of the damage that is getting done to our roads.

and

White Rock is a compact segment of territory with a very modest tax base... and senior citizens are pretty reluctant to see anything happen that will increase taxes as has been demonstrated in respect of the proposal of the waterfront. Prospects for community development out of general revenue are not very good. Yet, the City is saddled with the obligations consequent on a recreation facility - this popular beach - which serves a great many people from a wide area and their contribution is limited to a few pennies earned by beach front businesses. And there is a tremendous load on White Rock to provide policing and all the rest of it for that area in order to serve a bunch of people who drift in from all over the country and they don't really leave very much. They are not resident taxpayers.

and

Most governments are the same. They hear demands on them from all kinds of places and they are inclined to want to fulfill these demands but then the result is that they have something that they have to spend money on to look after. They started the decoration of
Johnston Road. So far they have kept it up fairly well but at the same time it is trapped for rubbish and must be maintained regularly. I think that the planning department see things that look nice but they forget that it will be a continual charge from then on. It is easy to promote these things and then forget about them.

[City Council gets] into committee and they decide what they are going to do and it is a "Kangaroo" deal. There is not more input. I would certainly like to see more reception to the input to the wishes of the elderly people.

Most of those interviewed feel that the local government possesses a positive attitude toward White Rock's elderly residents. The respondents realize that City council must be concerned with all local residents. The elderly, therefore, do not expect to be just handed services and facilities. "They go overboard. I think that they try to do too much for the senior citizen and don't leave them enough to do themselves. I think it is time that senior citizens realize that they have a little responsibility. I do not agree with handing it out to the senior citizen as they do." Simultaneously, there is a desire to have City Hall utilize the skills and experience of the elderly. The establishment of the Seniors' Advisory Committee is viewed as a positive step in this direction. This action suggests that City Hall is open to input from the elderly and that it welcomes involvement of the elderly in City decisions. There is, nonetheless, a fear that the committee will consist of lobbyists. "As long as the Committee does not go
there with the idea that they are going to ask for a lot more handouts. I am leery sometimes of these groups becoming more or less lobbyists rather than offering suggestions about how they can improve things themselves."

The majority of the elderly interviewed think City government is trying to physically improve the community. They realize that given the City's small tax base the process is a slow one. In answer to the question "what ought to be the City's role in accommodating the physical needs of the elderly resident?" one respondent sums it up best:

They [City Council] have the power to encourage or discourage. The role ought to be in consultation with seniors and I think they will realize that seniors do have a genuine concern and valuable input to make given the opportunity and the Advisory Committee is the way to go.

RESPONSES TO GROUP INTERVIEW FINDINGS BY MAYOR HOGG AND MR. JANCZEWSKI

Residential Environment

In response to the comments regarding the residential environment Mayor Hogg emphasizes that the concerns of litter, dogs and loud music are more social than legal in nature. The City has established a program with the local merchants to provide garbage containers in the commercial areas and there is a maintenance crew that cleans the beach during the summer. As well, the City is now working closely
with the S.P.C.A. to control the dog problem and there is a bylaw that can be enforced to deal with excessive noise. Mayor Hogg adds that these concerns are exacerbated by the influx of non-residents particularly in the summer.

Residential Planning - Views

Mayor Hogg:

Certainly in terms of residential housing the zoning is laid out very clearly in the community plan what is allowed and where it can go. The concern that has arisen and I believe you are alluding to is the one of protection of views... Everytime somebody [constructs a new home] they want to go to their maximum height 25' and they will block a lot of the small cottages that were there before them and that is unfortunate but they also have some rights in terms of the property that they build... what we have tried to do is introduce some more discretionary power saying that if somebody wants to put a house into this piece of property that if they are prepared to move it over to a zero lot line we will let them go 5' higher therefore protecting the view of somebody behind them.... There has to be a line somewhere where we can say you can build it to this level or we would play considerable havoc with the property values on the hillside.

Vacant Lots

Mayor Hogg:

We have a performance bond and the plans that are approved are time limited. And at the end of that limitation we can confiscate the bond and fill the holes in. There are certainly more vacant lots around now and holes in the ground as a result of the economy. But there are also a number of other vacant lots in the community that are privately owned and a number of street ends that are owned by the City. If [the privately owned lots] are an eyesore or a nuisance
then under our nuisance bylaw we can take some action. The street ends that are owned by the City, the Council reviewed about a month and a half ago and still believes we should hold on to them as street ends and keep the options open for the community in the future.

Mr. Janczewski:

The developer has no money; the banks own the land. Even if they were not bankrupt how do you force the guy to build something? What action do you take against him to say you have to build it. There is a provision in the Municipal Act that we can ask for financial guarantees for completion. But what happens if he does not do it - the City is going to move in and build an apartment building? But, there is nothing you can do. When the economy was good no one came in maliciously. Everybody had intentions of building and comparatively there is not much vacant land.

Street Lighting

Mayor Hogg:

Our tax policy in terms of our budget and priorities has been to provide... street lighting in the town centre, the core areas, and to our high density areas. We have a five year plan in terms of expanding and developing those and we put what money we see as appropriate towards that priority each year. There could be better lighting... but that is going to be a slow incremental process.

Mr. Janczewski:

Statistics generally show that there is no correlation between lighting and crime reduction. But it is important emotionally. I guess if you feel threatened it is as important as if you are threatened... So yes, in fact, White Rock does not have a lot of street lighting. It doesn't have a program
of achieving a certain level of illumination on the streets over time to eventually reach a certain standard. It is basically a financial issue. It is not an uncommon situation for most older municipalities particularly the smaller ones where at the time of the original subdivision they didn't demand street lighting... Now where we have new development it is being done. In the areas where the apartments are... there has been very little complaint on the subject. I think also one of the reasons is that a lot of the elderly do not go out and I just don't think it is just because of street lighting. White Rock because of the age mix has its busiest period of the day around noon.

FACILITIES and SERVICES

Seniors' Activity Centre

Mayor Hogg:

Clearly there is a need for a Senior Centre. One proposal that we presented involved Surrey participating financially in the expansion of our Senior Activity Centre or developing one of their own or coordination of some kind... Certainly, clearly, seniors have a strong identity with what is in existence and with the co-ordination and organization that takes place there, it seems that at this stage it would be best to expand that Centre.

Mr. Janczewski:

There is a recognition that it is going to have to be expanded. It is just a question of when. It is already starting to show overcrowding and it is further complicated in what Surrey is going to do. Logically they should be donating or contributing to the City of White Rock to build a super centre because White Rock has the mass of the elderly population whereas Surrey's is more distributed.
A place where the elderly can go for an inexpensive, nutritionally sound meal and social contact.

Mr. Janczewski:

The idea is great. A lot of them have very poor diets. But again White Rock with its size - it is just not within its financial capabilities to do it. It means a Society or someone else doing it. The City might contribute to it but it could not operate it on its own.

Local Bus routes

Mayor Hogg comments that a local committee has been working with B.C. Transit to review bus routes and to determine need on those routes. A full report is to be submitted in mid-September to Transit. He adds that:

The one major area that came to our attention was in front of the Peace Arch Senior Citizens home. They wanted the bus route to go in front of there... Council turned it down based on the fact that the Senior Citizens home had been placed in a single family residential area. The proponents of the home had said that they were not going to be an intrusion in the area and the single family homes in the area felt that it was a dramatic intrusion to have buses running by there... There will be as an alternative... a walkway from the Senior Citizens home down to Buena Vista Avenue through the park.

Mr. Janczewski:

We are trying to reroute intentionally past that building (Peace Arch Manor). We have another one rerouting so it will go to the hospital from Johnston Road this fall. The major issue regarding buses that has surfaced recently is the fact that no public bus service is available because of the bus strike.
To reduce the negative impact of the summer bus strike, the Seniors' Advisory Committee has taken two steps. The Mayor explains:

...shopping was the main issue with people not being able to get around to get the staples they need for daily living so we have been in touch with a couple of grocery stores that are prepared to introduce a delivery service for them. We are now also working on an information line for seniors that will be available 24 hours a day.

Bus Transportation To and From Vancouver

Mr. Janczewski:

The transit frankly has told us that they have an intention to discourage bus ridership. They have a fixed budget and they want nobody else on the buses.

With regard to the possibility of having within White Rock "kneeling buses", smaller sized buses or a "dial-a-ride" bus, Mr. Janczewski points out these decisions are a provincial matter. The provincial government has said that these changes in bus transportation are, thus far, not required.

Bus Shelters

Mr. Janczewski:

There is still a severe shortage... we have got some up on Johnston Road only because we get them free from the advertising company. I would like to see them at least one per year or whatever, but money always gets tight.
Health Care

Mayor Hogg:

I think that the government made some good and strong moves toward home care recognizing that there were some financial gains to be had for them in that home care was far less costly than acute hospital care. Certainly anytime we have cutbacks in the health care area it is going to affect our community more than a lot of other communities that have such a reliance on our core services and on hospital services.

Boardwalk Along the Waterfront

Mayor Hogg:

It would be great but it sure would be costly to build a boardwalk south of the tracks.... What I do think we need is a promenade along the full length of the area. Ideally a promenade that would go around to Crescent Beach that people could walk around or ride a bike around, almost a seawall notion.... What we are working on now is.... a pathway north of the tracks and east of the park. There will be a pathway along to the white rock and a platform out by the white rock so that people can actually walk right up to it.... From a strictly aesthetic and a recreational point of view a walkway along the waterfront would be great.

Mr. Janczewski:

It has been proposed but again it gets into the dollars. Utility-wise it is questionable too. I am not a firm supporter of it. I think it is a very nice idea but I really wonder how often it would be used in the sense that it is below the street level. There is no visibility from it to the street and what more are you gaining from walking parallel to the shore than from walking out to the pier and back again which a lot of people do. I would much rather see it running from the pier westward along that whole commercial area.
SPATIAL ARRANGEMENT

Seniors' Activity Centre

Mr. Janczewski:

It is desirable within the town centre area. The possibility of the town centre hall either using some of it or adding on to it. But that is going to be some time off. And possibly if we could get some other land it would be nice, behind the Safeway or any of those areas.

SIDEWALKS

Mayor Hogg:

Every year the City designates or assigns a certain amount of money from its budget for the building and development of sidewalks. Those are placed on a priority basis and the money is expended. There is also a great number of sidewalks that go in with any new development.

Mr. Janczewski:

There was a big push a couple of years ago. The situation is one hundred percent better in the apartment area than what it was. But again, the money is being allocated to other places. We know where they are needed and we know what type to put in. It will slowly improve over time but it is going to be a block or two per year.

Sidewalks of Johnston Road

Mr. Janczewski:

So many of the stores are built below the level of the grade of the road. So trying to compensate for that you either slope the whole sidewalk from the street to the store which is not a good situation. Or you make one portion of it very steep and the rest flat so he [City Engineer] chose to have a portion very steep and the rest flat. He got
criticized for that, if he had done it the other way he would have been criticized for that too.

Bicycles on the Sidewalks

Mayor Hogg:

We now have more trouble with pedestrians getting hit by bicycles on the sidewalks than we have on the roads by cars. We are bringing it forward to committee for more discussion and I have asked that the staff look into what is happening in other municipalities around that issue as well.

Mr. Janczewski:

There are signs, stencils on the sidewalks. It is a case of citizens taking responsibility themselves.

Installation of a Traffic Light at Thrift Avenue and Martin Street

Mayor Hogg:

There are some fairly black and white criteria that are used in terms of making decisions as to where lights go in terms of traffic flow and volume and timing. It may be that those criteria used by the Canadian Traffic Controllers' Association have to be modified for a community like White Rock where the demographics of the community are slightly different. That particular corner has not been brought to my attention as a point of need but I would think that if it is or continues to be and we get concerns about it that we would want to look at those criteria based on the need of seniors who are living in the core area.

Mr. Janczewski:

Thrift is designated as an arterial and the reason being that it is the only street that goes all the way from the west boundary of the City as far as Oxford, Centennial Park area that is basically flat. As far as the
light, the way engineers operate they go by their warrants. It might be, compared to the other streets, busier but it certainly is not one where we are getting people knocked over. Again, I think it is a perceptual thing that you can get across it in relative safety but compared to the other streets it is busy. So there is no plan to put one in, there right now... there might be if the other leg of the ring road ever does get built.

Narrowing of Johnston Road

Mayor Hogg:

We did not want Johnston Road to become a freeway and we did not want Johnston Road to be an area that was going to be for commuters driving to Vancouver to work and back. Habitually that had been the route they followed. We wanted to get them off that road and we wanted to slow that road down to make it safer for pedestrians and make it more commercially oriented. Certainly our statistics show us that we have dramatically reduced the number of accidents, the number of people hurt in crosswalks. It is much safer and much nicer looking area now.

Parking of Recreation Vehicles on Residential Streets

Mayor Hogg:

I brought that issue forward to Council probably a year ago for review. It seemed that the tradeoffs in terms of dealing with them were far more costly from both a social and economic point of view than the problem that is in existence with them.

Mr. Janczewski noted one concern not raised during the group interview sessions — park space

Mr. Janczewski:

There has been a bias over the years to have most of the park space oriented towards the traditional kids and young adults... we are...
going to have to change our priorities because of the population aging. So we don't really need a lot of new big park space. What there needs to be within the town centre area is to buy up some choice fifty to one hundred foot lots and make them viewing, sitting, conversation type open spaces.

Mayor Hogg:

Well certainly based on national standards I think we have enough park-land. We particularly have the beach and the pier which are tremendous parkland, open space assets that are not even included under the criteria that are being used by the national park standards or the standards that are used by community and local parks. I think that based on those standards and the acquisition of the remainder of Dupres Ravine and the acquisition of the Buena Vista Park, that we are in good shape in terms of parks.

ROLE OF LOCAL GOVERNMENT

Financial Accountability of City Hall

Mayor Hogg:

We have a public and open budget and there is a lot of discussion that takes place. The budget is developed over a four month period and is reviewed through a twelve month period. There is a formal review that happens in late September, early October in terms of how close it is to coming in with the actuals of the projected expenditures. I think that there is a perception that exists that government and public institutions are not as diligent and accountable with money as they should be. Clearly it is not run in strictly a business fashion because of the clients that are being adhered to and the goals that are different. There are a lot of social goals and recreational goals that do not pay off in an economic fashion. But while saying that I do think there is some truth to the notion of inefficiency within government. There is clearly inefficiency within any big bureaucracy and big organization and we should always be working to make it more effective and more efficient.
Why Seniors' Advisory Committee Established

Mayor Hogg:

Partially because looking at the allocation within our parks and recreation budget and the focus and the directions that come out of the budget, because in a very real sense the way we spend our dollars reflects the priorities that the City has. I don't think that we have had the correct priority on seniors based on the population and based on need... It seemed like a good format to provide that type of information and input to me and to Council as well as for Council and myself to provide information to the seniors in terms of their awareness of the directions that the City is going.

How Seniors' Advisory Committee Founded

Mayor Hogg:

It was first established by me going to the administrator and saying that I was going to form a Seniors' Committee and I wanted him to petition people and get some representatives for that committee. He then got in touch with organizations and they appointed people. The structure has been evolving through the meetings. Two meetings ago they elected their executive and they are now chairing the meetings and prior to that I chaired them. I sit on it now as a member to provide information and input and assistance as possible. I think we earlier discussed the two tangible types of things [home delivery of groceries and a 24-hour information line] that have grown out of it as well as a number of directions that they are starting to take and a couple of sub-committees that are involved.

In response to the fear expressed in the group interview sessions that the Committee may consist largely of
lobbyists the Mayor notes:

I think that clearly there is that possibility. I don't think that the committee has become a single interest group or single issue group. If somebody is a lobbyist and they are lobbying for something that is appropriate in need and reasonable then they should be lobbying for it. So lobbyists are a valuable part of our system and I think it is when they lose the best interests of the community as a whole that they can be detrimental to the overall operation of the Committee and the City. Hopefully we have enough people to ensure that it does not happen.

Overall Reaction to Group Interview Findings

Mr. Janczewski:

I am a bit surprised about the acceptance of the density in the apartments. I find it actually quite a comfortable density. In fact I did some computer runs - that if you look at units per acre the apartment area is obviously higher in density than the single family areas, but if you look at people per acre the single family areas are higher than the apartment area. So what is density? Is it housing or is it people? So really the density is not overwhelming in that area...
The pure single family neighbourhood except in rare circumstances not only is it going to be impossible it is just not socially desirable... People have to have the ability - not on the same block - but within their general neighbourhood - to stay if they want.

FUTURE OUTLOOK

Finally, in the near future Mayor Hogg asserts the need for local residents to define the identity of their City:

I think we have to work at the identity of the City. We are a schizoid City at this stage. There are people that think it should
not change at all and we have people who think it should dramatically change. It is time for us to try and come together with some type of common sense of what the community is. We have to go through a process of being aware of what the meaning of each of those directions is, so that the people can make an intelligent and rational decision in terms of the direction they want it to move. We have to get that happening at a base that is outside the political arena so that it will be something that will bind politicians to that direction... We have applied for a provincial grant to allow that process to take place to get the people in the community involved in defining what they want their community to look like and to be. We have just heard this week that that grant has been turned down... So it is something that we will try again next year to get the funding to do and we will start doing on a more limited fashion within our current planning budget.

In conclusion, this chapter has outlined the methodology in the study. It has been argued that the most appropriate means of obtaining an understanding of the environmental requirements of White Rock's elderly is through the focussed group interview. This is due largely to the method's greater flexibility in eliciting qualitative information.

In addition, results of the group interview sessions and interviews with the local mayor and planner have been presented. Topics discussed included: residential environment; facilities and services; spatial arrangement; and the role of local government. Issues raised regarding
the residential environment involved litter, dogs, loud music, safety, landscaping, street lighting and control in residential planning with regard to the protection of views. The elderly respondents feel comfortable living in the apartment core area at its present density level. Concerns about facilities and services emphasized that the Seniors' Activity Centre is too small, that there are no places where the elderly can go for social contact and a meal, and that there is no home delivery of groceries. Concern was also expressed about the inadequate public bus system (lack of bus driver courtesy and bus routes within White Rock), the reduction in local health services and the need for more public recreational facilities (lawn bowling field, curling rink). The elderly participants think that the commercial services in White Rock, including Semiahmoo Centre (at North Bluff Road and 152nd Street [Johnston Road]), are sufficient for their needs.

With respect to the spatial arrangement of the City, the mal-location of the Seniors' Activity Centre (at Kent Street and Russell Avenue) is noted since it is beyond walking distance of many of the elderly respondents. Also pointed out is the lack of adequate sidewalks, auto traffic on Johnston Road and side streets plus the parking of recreation vehicles on side streets. Those interviewed also believe that the choice of housing types in White
Rock cater to the various housing needs of elderly residents and that most of the community facilities and services used by them are within walking distance. Finally, discussion about the role of local government centred upon the City's modest tax base, government accountability, influx of non-residents and the Seniors' Advisory Committee. Most of the elderly respondents think that the local government has a positive attitude toward its elderly citizens and that physically the City government is trying to improve the situation in the community.

Interviews with Mayor Hogg and planner Dan Janczewski revealed that they are aware of the issues raised in the group interview sessions and of the importance of addressing these concerns. In striving to improve the quality of life of White Rock's elderly a positive step in this direction has been made with the recent establishment of the Seniors' Advisory Committee. This Committee provides a more formalized means by which elderly residents can express to government officials issues of particular importance. The Mayor and planner note, nonetheless, several constraints in enhancing the quality of life of elderly residents. These constraints are: (1) The City's modest tax base due to its small geographic and population size; (2) the present sluggish economic situation which has curtailed, for example, the
construction of additional housing and thus additional City tax revenue; and (3) the differing planning goals and objectives between White Rock and the adjacent municipality of Surrey together with those of the provincial and federal governments. This is illustrated in the lack of funding made available to White Rock by Surrey and the higher levels of government. Improvements in the physical environment, therefore, will continue to be a slow process.
Conclusions

This study has revealed four major themes about community planning and the elderly. First, the literature review shows that there is a need for more studies in Canada regarding non-institutionalized elderly. As the proportion of elderly in the population increase, and as the number of Canadian communities possessing a substantial proportion of elderly residents increase, it will be imperative that there be an awareness and understanding of the particular environmental requirements of the elderly. This study has been an attempt not only to provide decision makers and the public with insights into this subject, but also to present ways by which the needs of the elderly can be accommodated.

Further, this study has attempted to strike a balance between those studies that examine single environmental issues facing the elderly and those that pursue a more holistic approach. Rowles and Ohta elaborate on this research dilemma:

... the research agenda has reached an impasse, and as we enter the 1980's, aging-environment research faces a fundamental dilemma.

On the one hand, particularly as policy imperatives become less insistent and research funding decreases, researchers are becoming more aware of the shortcomings of
studies that explore single aspects of the old person-environment transaction, such as the design of the dwelling, or architectural barriers to mobility, or patterns of shopping behaviour. These studies lack a sense of the total context. The fragmentation of research, so necessary for methodological reasons obscures aspects of relationships and the ultimate wholeness of the phenomenon that may be critical for understanding it. It is becoming increasingly apparent that to fully understand the old person-environment transaction, it is necessary to adopt a holistic stance, utilizing a broader definition of milieu... It is desirable to incorporate consideration of societally determined norms of "appropriate activity", changing sex-role expectation and other social, cultural and political components of the individual's total milieu, into consideration of the old person's environmental context.

On the other hand, the quest for more holistic interpretation raises the specter of sterile "grand theory" (Mills, 1959) of developing fuzzy conceptual frameworks that are so complex and all-embracing that they cannot be empirically researched even with the most advanced computer technology. The complexity of some of the more recent aging-environment theories reflects this tendency. The dilemma, then, is one of reconciling the two levels of inquiry.[144]

The attempt to strike a balance between the two research approaches has been addressed by first looking at several factors that affect the elderly person's quality of life - residential environment, facilities and services, spatial arrangement and local government, and secondly by centering attention upon a specific community: White Rock, British Columbia. The focussed group interview is the major research technique that was deemed most appropriate for the
As with any research technique there are both advantages and disadvantages.

One disadvantage discovered in using the focussed group interview technique is that it is time consuming. The method is time-consuming in (1) finding respondents who fit the sample criteria (65 years of age or over, able-bodied, apartment dweller, minimum three year White Rock resident), and who are interested and committed enough to attend a session; (2) executing each session (which averaged one and a half hours); (3) commuting between Vancouver and White Rock (myself); and (4) transcribing and analysing the results. Another disadvantage is the financial cost involved such as the renting of a tape recorder, and the purchasing of quality cassette tapes.

A third disadvantage of the focussed group interview technique is that due to time and cost only a limited number of persons may be interviewed. In this study, a larger sample size than sixteen would have been better. It is important, nonetheless, to remember that the sample was not an attempt to represent the whole elderly population of White Rock. The approach taken was an exploratory one and not a scientific inquiry. A fourth disadvantage was that the scheduling of interviews was often difficult. For example, the moderator, Jane Askin, was available to conduct the interviews only on certain days at a certain
time. The schedule was further complicated by the fact that many of the elderly participants had hectic schedules of their own. Lastly, any time a study involves the use of a machine (in this case a tape recorder) there is a real possibility that a mechanical breakdown may occur. Unfortunately, I experienced such a breakdown when I interviewed the Mayor. Fortunately, the Mayor granted me a second interview. For the second interview session I arrived armed with two tape recorders which was fortunate because one of them malfunctioned.

Despite the above-mentioned disadvantages of the focussed group interview technique, they are outweighed in importance by the advantages for the study. Group interviewing has the advantage of allowing people more time to reflect and to recall experiences. It also allows each participant to qualify or revise his or her opinion or to argue against another participant with a contrasting perspective. Each session in the study ran smoothly for several reasons. One reason was that prior to the interview session each participant received a copy of the topics and questions to be discussed. This allowed participants to arrive at the session with well formulated comments. As well the small group size allowed ample time for respondents to present their views and made it easier for the moderator to establish a good rapport with the group. A third reason was that the sessions averaged one and a half hours. Any
time significantly beyond that would have tested severely the patience of the group members.

Another reason why the sessions ran smoothly was because of the use of the tape recorder. Although the potential for a mechanical breakdown existed, the use of the tape recorder was invaluable in that (1) it provided an accurate account of the proceedings; and (2) it freed the moderator and myself from the responsibility of recording responses and allowed us to concentrate on the execution of the interview. A fifth reason was that I was present to clarify the meaning of any question or term. In addition the moderator, Jane Askin, was well qualified due to her experience with group interview situations dealing particularly with the elderly. A final reason was that the elderly participants articulated well their interest in and concern about the issues examined.

A second major theme of the study is that maintaining maximum independence in daily living is vitally important to the elderly. Growing old necessarily involves adaptation to various types of problems, such as lower income or poorer health. Consequently, the impact of inadequate transportation services may in combination with other problems prove to be far more serious for the elderly person because of the cumulative effect. Conversely, if adequate transportation services exist, this can increase mobility
and make needed facilities and services more accessible.

The following findings are made:

**Buses**

1. Bus shelters with seats should be provided with highest priority given to stops located within the apartment core area.

2. Since the height of the step into the bus cannot be altered in existing vehicles, special attention should be paid to the sidewalk or platform at bus stops. Every stop in the apartment core area should have a high curbed sidewalk so that the driver can pull up to the curb and thereby reduce the height of the step into the bus.

3. Driver courtesy and sensitivity (in such matters as waiting for seniors who cannot rush to the stop, waiting for disembarking passengers to reach a connector bus, giving elderly passengers a chance to get seated before starting, pulling in close to the curb) make a significant difference as to whether or not elderly people are able to use the transit system. It is important to give drivers on-going reminders about the special needs and vulnerability of this group. The Seniors' Advisory Committee should undertake the task of meeting with drivers in an attempt to foster driver co-operation and awareness.

4. Scheduling changes and high frequency of service requested by some respondents would be too costly. While service improvement is not practical, increased awareness and information may help alleviate the problem of long waits. Knowledge of the bus schedule and careful timing can reduce waiting periods at the stop or between buses. Drivers could have schedules readily available to hand to passengers and copies should be posted in apartment lobbies.
(5) The local bus should be rerouted so that it stops along more streets within the apartment core area.

(6) Some way of more rapidly registering short-term handi-dart users should be incorporated into the Urban Transit Authority System.

**Sidewalks**

The installation and upgrading of sidewalks should be given priority in the apartment core area.

**Lighting**

Additional street lighting is required in the apartment core area and nearby bus stops.

**Traffic Control**

Pedestrian controlled traffic lights should be considered at heavily travelled intersections in the apartment core area.

The third major theme of this study is that there is a heightened effect of the physical environment upon the elderly. The role of the community environment is crucial because of the sustained contact by the elderly with a limited environment and the sensitivity of the elderly to certain aspects of it. This is evident in the reasons given for choosing to live in White Rock: its scenery, climate and geographic location. The importance of the physical environment is further illustrated by the concern expressed regarding issues raised directly affecting the environment — litter, dogs, loud music and vacant lots.
Moreover, the environment can act either as a facilitator or a constraint on the elderly individual in his or her pursuit of daily activities. For instance, the relatively heavy and fast moving auto traffic along Thrift Avenue is perceived by some elderly pedestrians as dangerous even though according to Canadian Traffic Standards a traffic light is not yet warranted at the intersection of Thrift Avenue and Martin Street.

In addition, "critical distances" are useful indicators of where housing for the elderly should be located in relation to the neighbourhood's facilities and services. It is necessary that certain essential facilities and services ought to be located within a six block radius of the elderly person's home. In applying this average critical distance one must remember that the surrounding environmental context varies substantially. This is particularly noteworthy in White Rock where the City's topography varies from sea level to 285 feet above sea level. Living in an apartment building, for example, located on the south slope five blocks from Johnston Road would make it more difficult for an elderly person to gain access to facilities and services than if the apartment was on the hilltop where the same five blocks would be relatively flat and thus easier to walk.

Further findings include:

(1) Expanding the zoning for apartment blocks in the hilltop area near Johnston
Road. Convenience and accessibility of that area is an argument for changing the zoning so that a maximum number of elderly can have the advantage of nearby facilities and services.

(2) Increase awareness among elderly residents of facilities and services. This could be accomplished in part by the establishment of a 24 hour information line that can direct an elderly individual to required facilities and services. As well this awareness could be accomplished in part by having a monthly column in the local paper, the Peace Arch News, providing information about services and benefits available to the elderly. The exercise of listing and detailing services available would also point out overlaps or gaps which may be useful to service providers in co-ordinating their efforts most efficiently.

The final major theme of this study is the need for changes in the practice of community planning regarding the elderly. The basic philosophy of decision-makers at all levels tends to be one that "knows what is best for old people". It was largely assumed in past planning practices that what was good for the community was good for the elderly. The elderly, like other human beings, have basic common needs such as food, shelter, health care and opportunities for full growth and interaction with others. However, because of the physiological, psychological and economic limitations, the elderly find some of these needs intensified and unmet. Any planning policy for the elderly must take these needs into consideration. In a housing policy, for example, the provision of shelter alone is not
sufficient. For an elderly person to be satisfied with his or her environment other needs must also be met.

An example of planning with little thought of the elderly is revealed in the neighbourhood unit theory. The neighbourhood has been planned largely for the family with children since those concerned with neighbourhood design have linked it with child rearing. Although the needs of the elderly are not basic to the theory, certain needs of the elderly are met in the conventional view of neighbourhood such as, nearness to community facilities and the protection from heavy traffic. Despite these similar requirements elderly individuals often have needs and activities which are not met in the conventional neighbourhood. This study has noted that three types of prohibitions in zoning law have especially affected the elderly: the prevention of conversion; the prevention of special housing types; and the prevention of mixed land uses.

In addition, there has been a tendency for decision-makers to view the elderly as a homogeneous group distinguished from the rest of society by virtue of a single determinant, age. But, elderly people are as diverse as, if not more diverse than younger people. The needs of the elderly vary since members of the group range from those with serious disabilities, causing physical immobility to
healthy elderly individuals with only minor physical frailties. The task of the planner is not to find the best solution for elderly people but to make it possible for each elderly person to create or choose the type of environment that is most fulfilling. In order for future community plans to be effective the elderly must have direct input into the planning process particularly in those communities that possess a substantial proportion of elderly residents. Although it is important to act now, decision-makers must do so always bearing in mind the changing goals, desires and needs of the next generation, who will be far different in many respects from the current one.

Although this study served more to confirm than to overturn previous research, it allowed selected elderly residents the opportunity to express their views on the physical environment of White Rock. The City has taken a positive step with the recent establishment of the Seniors Advisory Committee. Undoubtedly, the findings produced by this Committee will increase awareness by City officials of the special concerns of elderly residents. It is hoped, therefore, that a decision such as locating the Seniors Activity Centre away from the commercial and apartment core area will be avoided in the future.

Although certainly there are improvements that the City can make to enhance the quality of life for the elderly
resident it is important to remember two points. One is that those elderly residents interviewed were generally satisfied with their community. It is possible, of course, that people who were dissatisfied with the community have moved elsewhere. Secondly, due to the present depressed economic situation the City simply does not have the money required to undertake many projects. The City should continue to strengthen its ties in planning matters with the neighbouring municipality of Surrey. Of particular importance is the need, firstly, to reduce duplication of facilities and services and secondly, to have Surrey pay its fair share of the costs. For instance, 95% of the users (figure skaters and hockey players) of the Centennial Park Ice Arena are Surrey residents, yet the municipality of Surrey pays only 40% of the arena's maintenance costs.[145] The lack of funds is also evident at the higher levels of government. At the federal level there have been cutbacks in upgrading the waterfront area while at the provincial level there have been reductions in local health care services. For the present time improvement in White Rock's physical environment will continue to be a slow and incremental one. It is anticipated, nonetheless, that City Council will recognize and take steps to address those issues affecting the elderly resident's quality of life as funds permit.
In brief, the challenge of reinforcing communities with substantial proportions of elderly residents is complex and requires action at many levels. Regnier cogently explains:

Planners and decision-makers are beginning to understand that many of the problems that affect elderly people cannot be alleviated by wholesale destruction and renewal. Positive steps toward constructive intervention must be taken, but they should progress selectively by reinforcing positive environmental elements and providing needed community services in accessible locations.[146]
FOCUSED INTERVIEW - ELDERLY RESIDENT GROUPS

Opening Questions

(1) What would you say were your three most important reasons for moving to White Rock?

(2) If you had to pick one problem that you consider the most serious in the community, what problem would that be?

Residential Environment

(1) If you had to pick one problem that you consider the most serious in your residential environment, what problem would that be?

(2) Do you feel comfortable living in your neighbourhood at its present density level?

(3) Do you feel safe walking alone in your neighbourhood during the day? After dark?

(4) Are you satisfied with the landscaping in the community?

(5) Is there sufficient street lighting in your neighbourhood?

Facilities and Services

(1) If you had to pick one problem that you consider the most serious concerning local facilities and services, what problem would that be?

(2) What community facilities and services do you use on a regular basis?

(3) If you use the public bus system, do you have any problems? (i.e.) have to wait too long for a bus, unsafe bus stop.

(4) Would you say the local health care facilities are sufficient for your needs or insufficient?

(5) Are the commercial services in White Rock sufficient for your needs or insufficient?

(6) Now how about public recreation facilities? Are they sufficient or insufficient for your needs?
Spatial Arrangement

(1) If you had to pick one problem that you consider the most serious regarding the spatial arrangement of the community, what problem would that be?

(2) In general do you find that the various types of housing in White Rock cater to the needs of the elderly resident?

(3) Are most of the community facilities and services that you use within walking distance?

(4) If you regularly walk to do your errands, do you encounter any problems? (i.e.) trouble getting up and down the curb, improperly maintained sidewalks.

(5) If you drive, do you encounter any problems? (i.e.) signs too small and difficult to read, traffic moves too fast on small streets, lack of parking spaces.

Role of Local Government

(1) If you had to pick one problem that you consider the most serious with respect to the local government, what problem would that be?

(2) What do you feel is the attitude of the local government toward White Rock's elderly residents?

(3) Physically, do you think the City government is trying to improve things in the community, keep things as they are, or let them deteriorate?

(4) What ought to be the City's role in accommodating the environmental needs of the elderly resident?

Closing Question

(1) Do you have any final comments to make?
CHAPTER 1 FOOTNOTES

1. 'Special physical requirements' relates to the issues of housing, residential environment, facilities and services and transportation. An elderly resident is defined as someone 65 years of age or over, able-bodied, living in an apartment and a minimum 3-year White Rock resident. An able-bodied person is someone who can walk a minimum distance (i.e. 6 blocks) and who can walk up and down a minimum number of stairs (i.e. two flights) without the aid of another person.


5. Berghorn and Schafer, "The Quality of Life and Older People", p.335.


10. Morrison, p.103


CHAPTER TWO FOOTNOTES


15. *Ibid*.


17. Langford, p.33.

18. *Ibid*.


22. *Ibid*.

23. E. Hoben, "Planning Considerations in Urban Communities", *Housing the Aging*, p.47.

24. Langford, p.34.

25. *Ibid*.


27. Langford, p.34.

28. Langford, p.35.

29. *Ibid*.
30. Morgan, p.54.


32. Ibid.

33. Morgan, P.54.

34. Ibid.


36. Ibid.

37. Ibid.


43. Mathieu, p.59.


49. Regnier, p.308.

50. Ibid.

51. Ibid.

52. Regnier, p.309

53. Ibid.

54. Regnier, p.306-308.

These distance formulations were refined more recently by Robert Newcomer (1975). In Newcomer's research, a questionnaire was taken directly to the housing tenant who was asked also to note the frequency of use associated with 24 goods and services. Newcomer's questionnaire was a follow-up to a more extensive survey conducted by M. Powell Lawton of the Philadelphia Geriatric Center. The responses of 600 housing residents were used to create Table 2.1.

In this formulation the general conclusions of the Niebanck study were reinforced. However, the number of services included in the survey was greatly expanded. The service importance rankings from each study did vary. While Noll ranked church and physician near the top, Newcomer listed their importance to the bottom end of his scale. The distance criteria, however, stayed reasonably constant.

55. Regnier, p.310


57. Ibid.

58. Ibid.


64. Gordon and Shirasawa, p.97.

65. Golant, p.296.

66. Gordon and Shirasawa, p.98.

67. Ibid.

68. Ibid.


70. Gordon and Shirasawa, p.102.

The authors point out that empirical evaluation of existing dial-a-ride systems suggest that ideal demand densities range between 4,000 and 8,000 individuals per square mile. Densities lower than 2,000 individuals per square mile will not generate sufficient demand and densities of above 8,000 individuals per square mile may overload the system.


73. Ibid
74. Millas, p.271.


76. Wachs, p.23.

77. Ibid.
CHAPTER THREE FOOTNOTES

78. Langford, p.30.
80. Hastings, p.31.
82. Hastings, p.189.
83. Ibid.
84. Hastings, p.248.
85. Hastings, p.76.
86. Hastings, p.262.
88. Ibid.
89. Hrysko, p. 6.
90. Hrysko, p. 10.
91. Hrysko, p. 11.
92. Ibid.
98. White Rock Planning Department, Memorandum - 1981
Census of Canada, compiled by D. Janczewski (Vancouver,

99. Janczewski, pp.2-3

100. Statistics Canada, 1981.


CHAPTER 4 FOOTNOTES

115. All replies during the group interview sessions have remained confidential as no speaker's name is presented in the findings.


117. Krausz and Miller, p.49.

118. Krausz and Miller, p.52.

119. Krausz and Miller, p.53.


122. Nachmias and Nachmias, p.103.

123. Ibid.

124. Ibid.

125. Nachmias and Nachmias, p.106.


129. Ibid.

130. Runcie, p.181.

131. Ibid.

132. Ibid.

133. Ibid.

134 Runcie, p.182.


138. Ibid., p.233.

139. Zeisel, p.154.

140. Zeisel, p.155.

141. Ibid.

142. Ibid.

143. Runcie, p.184.


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Millas, A. (1980) "Planning for the Elderly within the context of a Neighbourhood". Ekistics, 47, July/August.


