SENIOR CITIZEN HOUSING

IMPLEMENTING A CONTINUUM OF CARE ENVIRONMENT

By

DANA S. MAREK

Arch.M.Sc., The Technical University of Warsaw, 1967

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ADVANCED STUDIES IN ARCHITECTURE

in

THE FACULTY OF GRADUATE STUDIES

(School of Architecture)

We accept this thesis as conforming

to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

September 1989

© Dana Susanne Marek, 1989

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of School of Architecture

The University of British Columbia
Vancouver, Canada

Date October, 1989

Abstract

In the last twenty five years the health of individuals worldwide has changed. Life expectancy has substantially increased and the proportion of older citizens is growing constantly. This growing population of elderly people will dominate the housing market in the coming years. An increased demand for housing and health care services for the elderly calls not only for much greater supply than we have ever experienced, but also for new approaches, one of which is based on the graduation of care.

Provincial and local governments are looking for innovative options and design solutions which could meet the needs and expectations of a new wave of seniors at the end of this century.

It is the intention of this thesis to identify and define what are the underlying principles in planning housing and services for the contemporary elderly.

The Thesis has been developed as a research cycle based on a three-phase methodology of analysis-synthesis-evaluation. Analysis commences with comprehensive research into existing facilities and introduces the notion of multi-level care of the elderly. It investigates the real meaning of the quality environment within the elderly facility in terms of a continuum of his/her lifestyle. Synthesis defines the phenomenon of the continuum of care environment in the full scale facility program for the proposed Continuum of Care Complex (CCC) in West Point Grey in Vancouver, B.C. Evaluation investigates

the feasibility of the program implementation on a test site.

A basic premise of the thesis is that a multi-level care facility is a viable way of achieving an environment, which may fulfill a comprehensive array of needs of the elderly. It should include housing alternatives for the elderly, both in terms of tenure and supportive services, but above all should provide a specific ambiance equal to a home-like environment. The thesis has been structured as a hypothetical model of a programming system based on the principle of the continuum of care. This model includes four major functional components of the proposed complex: residential, long-term care, community services and outdoor activity spaces that blending together create a quality environment. This model has been developed in the real situation of the Point Grey Community on the principle of an active interaction. Subsequently this model has been tested on a selected site in terms of identification of opportunities and constraints which may affect successful program implementation.

The thesis concludes that a hypothetical model of the Continuum of Care Complex can be successfully implemented on the selected test site of the Point Grey Community. "Continuum of Care" environment for the elderly developed in the model may satisfy a broad range of needs for the elderly: physical, physiological and sociopsychological.

TABLE OF CONTENTS

Abstract		ii - iii
Table of Contents		iv - xii
List of Figures		xiii - xv
List of Tables		xvi - xvii
Acknowledgements		xviii
Introduction		1 - 13
1.	The Origin of my Thesis	1
2.	Problem Statement: British Columbia Background	1 - 3
3.	Definition of Continuum of Care	3 - 4
4.	Intentions of the Thesis	4 - 6
5.	Research Questions	6 - 7
6.	Objectives of the Thesis	7 - 8
7.	Methodology	8 - 12
8.	Layout of the Thesis	12 - 13
Chapter 1 - The Continuum of Care Concept		14 - 42
	Chapter Summary	14
1.1	Literature and Projects review: Concepts of Multi-Level elderly housing.	14 - 17
1.1.1	Greater Vancouver Regional District Area and British Columbia.	17 - 27
1.1.2	Canada	27 - 28

1.1.3	Europe	28 - 29
1.1.4	The United States of America	29 - 34
1.1.5	Conclusion	34
1.2	Review of the Current Policies of the Elderly Housing	35 - 39
1.2.1	Findings, Problem Statement and Summary	40 - 41
1.3.	The CCC in Point Grey as One of the Options and Innovative Approaches to Solving the Elderly Housing Problem.	41 - 42
1.4	Rationale of the Thesis	42

Chapter 2 - Supply and Demand: Analysis of the Elderly Housing Options and Services in Vancouver and West Point Grey Area. 43 - 63

	Chapter Summary	43
2.1.	The Contemporary Elderly: Their Means and Expectations	43 - 48
2.1.1	Current Trends	43 - 45
2.1.2	Features Characteristics of Senior Citizens - the Future Clients of the Continuum of Care Complex (C.C.C.)	45 - 48
2.2	The Elderly in Vancouver	48 - 55
2.2.1	Elderly Population: the People and Their Houses	48 - 53
2.2.2	Reluctance to Move Versus Attractivness of a New Place	53 - 54

2.2.3	City's Housing Policies and Market Forces	55
2.3	The elderly in Point Grey	55 - 62
2.3.1	Vancouver West Site: Trends and Preferences	55 - 58
2.3.2	The Existing Senior Housing in Point Grey	58 - 59
2.3.3	The Existing Long Term Care Facilities	59
2.3.4	A Need for Long Term Care Facilities	59 - 60
2.3.5	A Need for Senior Centre	61
2.3.6	Point Grey: Destination for the Elderly	61 - 62
2.4	The Site of the Continuum of Care Complex at 4th Ave & Highbury Street.	63
	<u>Chapter 3 - The CCC Facility Objectives</u>	64 - 98
	Chapter Summary	64
	Introduction	64 - 65
3.1	Living Environment Objectives (L.E.O.)	65 - 73
	L.E.O. #1 - Quality Environment	65 - 70
	#2 - Safety and Security	70 - 71
	#3 - Variety of Environments	71 - 73
3.2	Residents' Objectives (R.O.)	73 - 82
	R.O. #1 - Residential Tenure Choice	74 - 77
	#2 - Health Care Needs	77 - 79
	#3 - Social Needs	80 - 81
3.3	Facility Management Objectives (F.M.O.)	81 - 86
	F.M.O. #1 - Autonomy and Usefulness of Residents	82 - 83
	#2 - Independence	83

#3 - Personalization and Control 84

#4 - Friendly Physical Environment 84 - 85

#5 - Centralization of Supportive Services 85 - 86

3.4 Community Objectives (C.O.) 86 - 92

C.O. #1 - Care for the Local Elderly. 86 - 88

#2 - Access to Neighbourhood Resources. 88 - 89

#3 - Life Sustaining Resources 89

#4 - Community Network 89 - 91

#5 - Life Enriching Resources 91 - 92

#6 - Business Integration 92

3.5 Neighbourhood Development Objectives (N.D.O.) 92 - 98

N.D.O.#1 - Character and Livability 92 - 93

#2 - Compatibility 93

#3 - Streetscape 93 - 94

#4 - Views 94 - 95

#5 - Minimize Noise Impact 95

#6 - Privacy 95 - 96

#7 - Secure Environment 96

#8 - Variety of Open Spaces 96 - 97

#9 - Landscaping 97

3.6 Conclusion 97 - 98

Chapter 4 - The CCC Facility Components 99 - 123

Chapter Summary 99

Introduction 99 - 100

4.0	Size of the Facility	100 - 101
4.1	Housing - Independent Living	101 - 103
4.1.1	BCHMC Housing - Non-Profit Rental Housing	103 - 105
4.1.2	Co-Operative Housing	105 - 106
4.1.3	Strata-Title Housing (Condominiums)	106 - 107
4.1.4	Services in the Independent Living Housing	107 - 108
4.2	Housing for Persons Requiring Long Term Care	108 - 109
4.2.1	Intermediate Care Facility	109 - 111
4.2.2	Extended Care Facility	111 - 112
4.2.3	The Number of Long Term Care Beds	112 - 114
4.3	The Core Centre	114
4.3.1	Core Centre Component I - Life Enriching Resources - Cultural Centre	115 - 116
4.3.2	Core Centre Component II - Life Sustaining Resources - Health Centre	117 - 118
4.3.3	Core Centre Component III - Social Interaction and Business Integration.	118
4.3.4	Core Centre Component IV - Supporting and Maintenance Components.	118
4.4	Outdoor Spaces	118 - 121
4.4.1	Outdoor Space Components	119 - 121
4.5	Conclusion	122 - 123

<u>Chapter 5 - General Program Requirements</u> 124 - 229

Chapter Summary 124

5.1	Residential Housing - Independent Living Cluster	124
5.1.1	Functional Components	124 - 127
5.1.2	Housing Pattern and Critical Issues	128 - 132
5.1.2.1	Shape (Layout) of the Cluster	128 - 129
5.1.2.2	Cluster Identity	129 - 132
5.1.2.3	Relationship with the Core Centre	132
5.1.3	Dwelling Units	133 - 134
5.1.3.1	Functional Components	133
5.1.3.2	Category of Users and Their Needs	134
5.1.4	Private Outdoor Space - Independent Living Housing	134 - 139
5.1.4.1	Introduction	134 - 135
5.1.4.2	Elements of Private Space	135 - 137
5.1.4.3	Issues in Designing Private Outdoor Spaces	137 - 139
5.2	Dependent Living - Intermediate Care Facility	140 - 151
5.2.1	Functional Components	140 - 142
5.2.2	Living Units - Pattern and Critical Issues	143 - 151
	Issue #1 - Sense of residency	143 - 146
	Issue #2 - Flexibility	146
	Issue #3 - Link with the Core Centre - Wayfinding within the CCC Facility	147 - 151
5.3	Dependent Living - Extended Care Facility	152 - 164

5.3.1	Functional Components	152
5.3.2	Living Units Pattern and Critical Issues	152 - 156
	Issue #1 - Cluster Approach	152 - 153
	Issue #2 - Residential Character	153 - 154
	Issue #3 - Home like Environment	154 - 155
	Issue #4 - Patient Living Unit - Privacy Issue	155 - 156
5.3.3	Private Outdoor Spaces in the Dependent Living - Long Term Care Facility	156 - 164
5.4	Core Centre	165 - 166
5.4.1	Main Concourse	167 - 171
5.4.2	Food Fair - Dining	172 - 176
5.4.3	Food Services Facility	177 - 181
5.4.4	Rehabilitation Centre	182 - 186
5.4.5	Arts and Crafts	187 - 190
5.4.6	Auditorium and Special Programs	191 - 193
5.4.7	Administration	194 - 197
5.4.8	Clinic	198 - 201
5.4.9	Pharmacy	202 - 205
5.4.10	Library	206 - 208
5.4.11	Staff Support Facilities	209 - 211
5.4.12	Laundry Services	212 - 213
5.4.13	Plant Services	214 - 215
5.4.14	Building Services	216 - 217
5.4.15	Material Services	218 - 220
5.5	Facility Common Outdoor Space	221 - 227

5.6 Parking and Road Network within Facility 228 - 229

Chapter 6 - Feasibility of Program Implementation on the Selected Site: Thesis Conclusion. 230 - 273

Chapter Summary 230

Evaluation #1: Site Location and Size 230 - 236

6.1.1 Rationale 230 - 233

6.1.2 Location 233 - 235

6.1.3 Opportunities 235

6.1.4 Constraints 236

6.1.5 Conclusion 236

Evaluation #2: Land Use Context 237 - 240

6.2.1 Opportunities 237

6.2.2 Constraints 237 - 239

6.2.3 Conclusion 240

Evaluation #3: Public Transportation, Vehicular and Pedestrian Access. 240 - 246

6.3.1 Opportunities 240 - 241

6.3.2 Constraints 241 - 245

6.3.3 Conclusion 245 - 246

Evaluation #4: Site Physical Characteristic 246 - 251

6.4.1 Opportunities: Site Natural Resources 246 - 250

6.4.2 Constraints 250

6.4.3 Conclusion 250 - 251

Evaluation #5: Space Character and Views 251 - 254

6.5.1 Opportunities 251 - 253

6.5.2 Constraints 253

6.5.3 Conclusion 253 - 255

Evaluation #6: Housing Patterns 255

6.6.1 Rationale 255

6.6.2 Pattern No.1 256 - 261

6.6.3 Pattern No.2 261

6.6.4 Pattern No.3 262

6.6.5 Pattern No.4 262

6.6.6 Conclusion 263 - 272

Findings and Thesis Conclusion 273 - 283

References 284 - 288

Appendices 289 - 310

LIST OF FIGURES

Fig. 1-1	Hollyburn House - Main Floor	21
Fig. 1-2	South Granville Park - Typical Floor Lodge	21
Fig. 1-3	St. Michael's Centre - Main Floor	24
Fig. 1-4	Parkwood Manor - Main Floor	24
Fig. 1-5	Abbeyfield Concept - Main Floor	26
Fig. 1-6	Arbutus Ridge Village - Site Plan	26
Fig. 1-7	Hausjarvi Health Care Facility - Site Plan and Residential Cluster Layout	30
Fig. 1-8	Motion Picture and Television Country House and Hospital - Existing Site Plan and Proposed Site Development	32
Fig. 1-9	Regent Point - Site Plan	33
Fig. 2-1	1981 - Single Family Households with Member Age 65+	50
Fig. 2-2	1991 - Single Family Households with Member Age 65+	51
Fig. 2-3	2001 Single Family Households with Member Age 65+	52
Fig. 2-4	Projection of Senior Housing Needed by 2001 to Accommodate Elderly Homeowners	53
Fig. 2-5	Number of Clients Receiving Long Term Care Home Support or Facility Services by Level of Care (December 1986)	60
Fig. 2-6	Number of Clients Waitlisted for Long Term Care Placement by level of Care (December 1986)	60
Fig. 4-1	Access and Control Model of the CCC Facility	123
Fig. 5-1	Common Space in the Cluster as a Garden	130
Fig. 5-2	Common Space in the Cluster with Shared Walkway	130

Fig. 5-3	Cluster Identity Reinforced by a Central Sitting Area and Shared Storage Shed	131
Fig. 5-4	Pedestrian Circulation Developed as a "Feeder" System.	131
Fig. 5-5	Independent Living Outdoor Spaces	136
Fig. 5-6	Long-Term Care Facility Access Model	145
Fig. 5-7	Intermediate Care Facility	149
Fig. 5-8	Intermediate Care Cluster Type 1	150
Fig. 5-9	Intermediate Care Cluster Support	151
Fig. 5-10	Private Outdoor Spaces in Nursing Home	158
Fig. 5-11	Extended Care Facility	162
Fig. 5-12	Extended Care Cluster Type 1	163
Fig. 5-13	Extended Care Cluster Support	164
Fig. 5-14	Core Centre	166
Fig. 5-15	Main Concourse	171
Fig. 5-16	Food Services	181
Fig. 5-17	Rehabilitation Centre	186
Fig. 5-18	Arts and Crafts	190
Fig. 5-19	Auditorium and Special Programs	193
Fig. 5-20	Administration Suite	197
Fig. 5-21	Clinic	201
Fig. 5-22	Pharmacy	205
Fig. 5-23	Library	208
Fig. 5-24	Outdoor Common Space	227
Fig. 6-1	Location and Size	234
Fig. 6-2	Land Use Context	238
Fig. 6-3	Public Transportation and Vehicular Access	242

Fig. 6-4 Pedestrian Access 243

Fig. 6-5 Site Topography 247

Fig. 6-6 Vegetation and Landscaping 248

Fig. 6-7 Public and Private Views 252

Fig. 6-8 Pattern 1 257

Fig. 6-9 Pattern 2 258

Fig. 6-10 Pattern 3 259

Fig. 6-11 Pattern 4 260

LIST OF TABLES

Table 2-1	Projections of the Elderly Home owners and the Potential Movers in Vancouver: (1981 census)	53
Table 4-1	Housing Choices in the CCC Facility	102 - 103
Table 5-1	Housing Type #1: Rental Housing Space Program	126
Table 5-2	Housing Type #2: Co-op Housing, 50 Dwelling Units Space Program	127
Table 5-3	Housing Type #3: Strata Title, 50 Dwelling Units Space Program	127
Table 5-4	Intermediate Care Cluster Space Program	142
Table 5-5	Extended Care Cluster Space Program	160 - 161
Table 5-6	Main Concourse Space Program	170
Table 5-7	Food Fair Space Program	176
Table 5-8	Food Services Facility Space Program	180
Table 5-9	Rehabilitation Centre Space Program	185
Table 5-10	Arts and Crafts Space Program	189
Table 5-11	Auditorium and Special Programs Space Program	192
Table 5-12	Administration Space Program	196
Table 5-13	Clinic Space Program	200
Table 5-14	Pharmacy and Dispensary Space Program	204
Table 5-15	Library Space Program	207
Table 5-16	Staff Support Facilities Space Program	211
Table 5-17	Laundry Services Space Program	213
Table 5-18	Plant Services Space Program	215
Table 5-19	Building Services Space Program	217

Table 5-20 Material Services Space Program 220

Table 5-21 Facility Common Outdoor Area Space Program 226

Table 5-22 Parking Area Program 229

Table 6-1 Use of Resources, Travel Time and Distance to Resources 231

Acknowledgements

I would like to express my gratitude to Professor Joel Shack for his supervision and encouragement.
My sincere thanks are to Professor Gloria Gutman and Architect Charlotte Murray for their constructive criticism and comments.
Furthermore, many thanks to Professor Rose Murakami for her participation in the discussion of the thesis.

I would like also to thank Architect Emil Marek, Ph.D., my husband, and Michael, my son, for their advice and assistance.
Finally, I am very grateful to Canada Mortgage and Housing Corporation for the scholarship which has made this thesis possible.

INTRODUCTION

1. THE ORIGIN OF MY THESIS

My personal interest in facilities for the elderly began in 1970 when I was involved in a number of projects as an architect in Poland. While working on an Intermediate Care Facility I began to feel that the entire programming and design process is missing something. I realized that designing for the elderly is a unique problem because the needs of those people change almost on a day-to-day basis. Designing a building which responds to a specific program aimed at a specific group of elderly seems not to be an effective approach to the needs of the elderly. I came to understand that the entire programming and design process should not be considered a traditional architectural three dimensional problem but rather needs a four dimensional approach. The fourth dimension is TIME -- the principal factor in understanding the needs of elderly people. This idea puts the whole project delivery system in a new perspective.

2. PROBLEM STATEMENT: BRITISH COLUMBIA BACKGROUND

In the last seventy five years worldwide life expectancy has substantially increased and the proportion of older citizens has grown and is growing constantly. By the end of this century, in Canada and particularly in British Columbia the growing population aged 65 years and over will create challenges in the way of health care, housing and psycho-social supports. This situation calls for planning for housing and health care services for the elderly not only in much greater scale than we have ever experi-

enced, but also for a new approach based on the graduation of care.

Therefore the Problem, which I am investigating in this thesis could be summarized briefly as follows: "What are the underlying principles in planning housing and services for the contemporary elderly?"

Since the number of older persons age 75 and over continues to expand, housing with supportive services on site (medical and personal care) will be in great demand. New housing forms that provide free choice, maximize independence, stimulate the creative and self-expressive needs of individuals and optimize control over the environment are strongly needed. The notion of graduation of care organized and delivered in one setting seems to be the alternative approach in planning for the elderly. That notion has been strongly endorsed by The Canadian Medical Association (1987, p.22).

Facilities designed for use by elderly people can be characterized by their specific supportive living and social environments, and by delivery of personal, social and health care services. The services that elderly people need can range from very low - in a fully independent person's private home to the high level of services provided in a nursing home. In British Columbia, the provincial government currently uses the following terminology (see Appx # 0-1) to describe the range:

1. those elderly capable of Independent Living (IL)
2. those requiring Personal Care (PC)

3. those requiring Intermediate Care (3 levels: IC1, IC2, IC3)
4. those requiring Extended Care (EC)

In the last four decades, the guiding philosophy in developing housing for the elderly has undergone a radical change. At the time when most "homes for the aged" where built, such facilities were considered more institutional than residential buildings. The critics of the institutional model proposed that the best solution was to keep the elderly in their own homes, but the problem could not be solved because of the prohibitive costs in the provision of social and health care services to private homes. As noted above, in British Columbia there are five levels of care for the elderly: Personal Care, Intermediate Care (3 levels) and Extended Care. However, there is no practical example of a comprehensive facility in British Columbia which has implemented space flexibility and program adaptability (as transition between the "go-go" elderly and "slow-go" elderly) that would provide graduation of care for all levels in one place.

3. DEFINITION OF CONTINUUM OF CARE

A Continuum of Care for the elderly provides all levels of care in one location. A Continuum of Care facility can provide a continuum of housing and care from independent living to nursing care at the Extended Care level. The rationale behind the Continuum of Care idea is to develop a new program for the elderly facility which might fulfill elderly's diverse and

changing needs. Groups of people with similar needs and requirements will be accommodated in close proximity to one area within particular components of a "Continuum of Care Complex" (CCC) which will offer a relatively fixed range of services. However, they will also have access to a greater variety of services in the whole Complex. A "Continuum of Care Complex" might also provide additional services for the elderly that live in the neighbourhood.

4. INTENTIONS OF THE THESIS

In this Thesis ["Senior Citizen Housing, Implementing a Continuum of Care Environment"], I propose an alternative approach to planning housing and services for the elderly. The thesis has been developed as a hypothetical model of a planning/programming system based on the principle of the continuum of care, with the various elements blending together. This hypothetical model in terms of a facility program has been developed in the real situation of the Point Grey Community on the selected test site.

This thesis is an "architectural investigation" which focuses on "facility programming" for an innovative approach to a Continuum of Care facility. Facility programming is firmly established today as an important and necessary ingredient of the design process. According to Palmer (1981), programming is an analytical aspect of design. Programming, as an information-processing system, involves a disciplined methodology of data collection, analysis, organization, communication and evalua

tion. The thesis is based on the following cycle: analysis-synthesis-evaluation:

1. **ANALYSIS** of the data discovered in the process of the architectural investigation.
2. **SYNTHESIS** of the findings in the form of a CCC facility program.
3. **EVALUATION** of the possibility of the program development on the selected test site.

This Thesis will try to define a "continuum of care" environment for the elderly in terms of a program of housing as well as personal, social and health care services on one site. Generic results will be basic functional components (such as Extended Care), but specific will be the application of components to a test site as an evaluative process consisting of innovative approach in addressing the needs of the elderly at all different levels of care and also the way such a facility should respond to its site and neighbourhood.

In my thesis I will define a "Continuum of Care" environment which may satisfy a broad range of needs for the elderly: physical, physiological and psychological. On the basis of the published research and my private observations I will set up a Program which will address this particular environment and identify the design variables which may improve quality of life for the elderly.

My research study will be applied on a site in Point Grey, Vancouver, British Columbia. The Federal National Defence Lands

site has a unique setting in Vancouver close to Jericho Beach and UBC. The subject site may serve as a place for future development of housing as well as a facility for seniors. The Planning Department recommends that Floor Space Ratio be 1.0 to 1.45 and also that new development be compatible with the surrounding area of multi-family and single family housing. However, there are no official guidelines regarding the scale and scope of proposed development. This thesis will be the first attempt in proposing a senior citizens' housing development on this site.

5. RESEARCH QUESTIONS

Group I -- In terms of defining the elderly facility as a continuation of the elderly person's lifestyle:

1. What opportunities and constraints result from moving an elderly person from his/her home to this proposed CCC facility?
2. How has the guiding philosophy in developing housing for the elderly changed in the last four decades?

Group II -- In terms of defining the phenomenon of the "continuum of care environment":

1. How can the CCC fulfill the needs and expectations of elderly residents?
2. How can the CCC respond to the needs of the neighbourhood's elderly residents?

3. What are the most important qualities in creation of the CCC environment?

Group III -- In terms of the CCC site development potential:

1. What site development opportunities and constraints exist on the test site?
2. How can the outdoor spaces of the CCC respond to the progressive levels of care and their corresponding services?

6. OBJECTIVES OF THE THESIS

The principle objective of my research study is to find out what can be done:

1. To create an opportunity for living in one place as long as possible. The elderly should be able to continue to live in the same place as long as possible and if a move is necessary because of deteriorating health conditions, it should be within the same facility.
2. To create a special home-like environment which would fulfill a comprehensive array of elderly needs such as: economics (affordability), socio-psychological (supportive environments, peer groups) and physical (good quality; designed and located to accommodate the elderly with different levels of dependency).
3. To respond to the above objectives at the same time as providing a way of life for the elderly which will recognize their individual rights, such as privacy, self-determination, integration and also will provide the compensatory

resources of the environment in terms of a barrier-free design, variety of living, attractive interior setting and landscape design.

7. METHODOLOGY

The thesis follows a research method cycle of analysis, synthesis and evaluation:

7.1 ANALYSIS of collected data:

A. Analysis of existing facilities for the elderly with different levels of dependency.

1. Type of research: architectural investigation and design data gathering.

I have selected eight existing facilities (see Appx. #0-2) for the elderly in the Vancouver area, one in Halifax, and three in California, U.S.A. The selection was based on information from the literature (Gutman 1976; Carstens 1985; CMHC Conference 1988) and personal communications. The principle criterion in selecting these examples was that they are facilities which have implemented a policy of graduation of care, organized and delivered in one setting. I was specifically looking for the functional components mix and their contribution to the quality of the continuum of care environment.

2. Research methods: Comparative analysis of design principles:

The purpose of these analyses was to come up with programmatic criteria and intentions for a Facility Program implementing the Continuum of Care concept. The Research procedures I was using:

2.1 Finding out how design decisions were made:

a. Analysing the architects' plans and records.

This process provided a basis for hypotheses which were explored in the evaluation of the projects. It clarified the goals of both the designer and the client in the early planning stages of the design. Analysis of the designer's plans over the period of design development revealed how ideas changed and were eventually incorporated in the final design.

b. Interviewing the Architects

This step allowed further exploration of the architect's design ideas and objectives, providing information about how and why specific design decisions were made.

c. Personal Observations in the existing facilities: numerous site visits, watching the behaviour of residents, interviewing residents and patients, interviewing management and staff.

B. ANALYSIS of Literature:

1. Type of research: investigation and data gathering on contemporary models of housing for the elderly.

2. Research methods: review of the available literature dealing with the specific issues directly relating to the CC environment:

a. Living environment for the elderly.

b. Psychology of aging process.

c. Sociology in terms of how the post-industrial society should take care of its elderly people.

d. Plans and layouts of new and innovative design solutions implemented in long-term care facilities.

C. INTERVIEWS

1. Type of research:

Structured interviews with professionals involved in the subject of my thesis (see Appendix #0-3).

There included the following:

- Architects
- Long-Term Care Facility Administrators.
- Facility Programmers.
- Health Care Authorities Officials
- Developers
- Residents
- City Hall Planners

2. Research Methods: all interviews have been carefully structured in order to obtain maximum information on various subjects and functional component issues relating to my thesis; in particular I was looking for specific information concerning:

- Architects: plans, layouts, environment.
- Developers: market trends, service preferences, fiscal aspects of project financing.

- City planners: zoning regulations and design guidelines.
- Health Officials: local care needs.
- Residents: their needs.

D. ANALYSIS of existing Legislation and Design Guidelines (see Appendix #0-4).

1. Type of research: investigation and comparative analysis of the statutory regulations relating to the functional components developed in this thesis.
2. Research Methods: identification of existing regulations in terms of:
   a. area, space requirements.
   b. service and technical regulation.
   c. user needs and demands.
   d. program components
   e. operation policy quidelines.

7.2 SYNTHESIS in the form of the CCC Facility program (Chapter 4 & 5).

1. Type of approach: interdisciplinary -- architecture, gerontology, sociology.
2. The methods: full programming cycle (data organization and data communication) leading to the definition of components of a facility program for the CCC Facility in the Point Grey Area in Vancouver.

7.3 EVALUATION in the form of the feasibility of CCC program development on the selected test site.

1. Type of approach: comprehensive site analysis in terms of a program implementation on the test site.
2. The methods: defining development opportunities and constraints in a test site situation.

8. LAYOUT OF THE THESIS

The thesis is subdivided into an introduction, five chapters which develop the argument of thesis and a concluding chapter six. The structure of the thesis follows the methodology outlined in point 7.1 - Research Cycle and Methods. The six chapters of the thesis are divided into a three segment research cycle: analysis - synthesis - evaluation as follows:

ANAYLYSIS: This segment includes chapter one and two. It gives an overview of the existing trends in contemporary facilities for the elderly with emphasis on the multilevel approach. This part provides also a review of new policies in the planning of future housing and long-term care facilities in the Greater Vancouver Regional District. As well, discussion of the social profile of the potential residents in the Point Grey Area, serves as a background for the thesis.

SYNTHESIS: This segment includes chapter three, four and five. It synthesizes the findings of the previous segment into a comprehensive facility program.

EVALUATION: the conclusion of my research study thesis is presented in chapter six. It contains a comprehensive site analysis in the form of a feasibility study of development in a real situation.

CHAPTER 1 - THE CONTINUUM OF CARE CONCEPT

Chapter Summary:

Chapter 1 is the beginning of the thesis analysis cycle and introduces the notion of multi-level of care of the elderly. On the basis of selected examples, three major trends or approaches to the elderly facilities have been identified. Analysis of the literature and actual projects, led to several conclusions about multi-level care facilities and characteristic design features contributing to a quality environment. Many of those findings have been implemented in the thesis synthesis portion. Current Provincial and GVRD policies and recommendations regarding housing for the elderly have been analyzed. These findings provided grounds to state the Problem. The Chapter concludes with the proposed Continuum of Care Complex in a real situation and the thesis Rationale.

1.1 LITERATURE AND PROJECTS REVIEW: CONCEPTS OF MULTI-LEVEL ELDERLY HOUSING.

Introduction: Current trends in multi-level care of the elderly

In recent years, a number of directions have been explored in the planning of housing and long-term care facilities for the elderly. In British Columbia, there are a small number of projects in which innovative approaches to elderly facilities are employed. The following selected examples introduce three

major trends: the first combines more than one level of care in the same facility; the second provides supportive living and congregate housing; and the third extends the independence of the elderly through association with peer groups in a luxurious and stimulating environment.

First Trend

First, there is a trend to combine two or three levels of care in one facility. While recognition has been growing that various forms of assistance are needed to maintain frail older people in the community, there is also a fear that too much support and assistance in the form of long-term care can be inappropriate and may lead to premature loss of functional independence. However, as people age and become more dependent various kinds of support may be needed. To respond to these needs, the multi-level facility provides progressive care for the elderly residents as well as different mixes of social services. According to Gutman (1983), there are several advantages in fact, because a multi-level care facility:

1. may reduce relocation strees effects.
2. enables couples to remain in close proximity when the health of one deteriorates.
3. facilitates adjustments in service level to meet temporary changes in needs.
4. enables individuals rehabilitated to a higher level of functioning to remain in proximity to staff and residents with whom rapport has been established.

5. enables economies of scale (both capital and operating) in basic and specialized services.

Second Trend

Studies of trends and consumer preferences reveal that congregate housing is more desired by the consumer today than it was 10 years ago (Gaskie, Architectural Record, 1988). Taking the midposition between a nursing home and independent housing, congregate housing provides an arrangement less stringent than a long-term care facility and more supportive than conventional elderly housing. Usually, the congregate home provides an around-the-clock nonmedical "watch", minimum one or two prepared meals, limited personal care and several social services.

In congregate living, each resident has a private individual unit, which usually includes a small kitchen, bedroom, bathrom and sitting space; but communal facilities such as central kitchen, dining room and lounge are shared. There are five types of congregate settings: the small apartment, the large apartment, the apartment building, the congregate house and the residential hotel congregate (Welch, Parker and Zeisel 1984).

Congregate housing is usually owned and operated by a public or non-profit agency. Tenants often accept responsibilities for assisting staff in management and maintenance activities. Congregate living provides opportunitites for mutual awarness and informal social support among elderly residents and at the same time preserves their independence.

Third trend

Retirement villages or leisure lifestyle communities provide alternative living accomodation for wealthy seniors capable of independent living. Because British Columbia and especially the Lower Mainland, boasts a moderate climate, it is here that the greatest number of retirement communities have been built. These developments promote a leisurly, carefree lifestyle by offering single-family homes, apartments or townhouses with special features (eg. wheelchair accessible, lack of stairs) and several amenities for recreation. Club houses are provided for parties, billards, cards and other games. Some developments have swimming pools, hot tubs, putting greens, golf courses and other. Sophisticated security systems with video surveillance, electronically controlled entry-gates and elaborate burglar alarms are common features in many retirement communities. Although health-care is usually not provided in the retirement village concept some villages employ a full-time nurse or provide personal and assisted living care for those who might otherwise be confined to nursing homes. The retirement communities allow older people the extended independence through association with peer groups in a stimulating luxury environment.

1.1.1. GREATER VANCOUVER REGIONAL DISTRICT AREA AND BRITISH COLUMBIA.

TREND 1 - More than one level on the same site.

Example #1: Seton Villa in North Burnaby, B.C.

Seton Villa, a multilevel facility run by a non-profit organization, offers self-contained suites, board-residence and personal care in one ninteen-storey building. The building is divided into two parts: the residential part and the common facility part. The residential part is comprised of 77 units of self contained suites (one bedroom or bachelor) located on the 12th to 18th floors, 86 room and board units on the 6th to 11th floors and 88 personal care beds on the 2nd to 5th floor. The common facilities are located on the main floor of the building, in the basement and on the top floor. A communal dining room, kitchen, and the administration area are located on the main floor. A Health spa component containing an excercise pool, a thermal pool, showers and changing rooms as well as an Arts and Crafts component are located in the basement. On the top floor of the building, there is the lounge, which is used as a multi-purpose room for different active and passive activities. Adjacent to the lounge there is a beauty parlour/barber shop. The Auditorium component (which can accommodate 200, seated theatre style) is located in a separate building, attached to main building by a covered ramp.

The Administration of the facility provides a very warm, home like atmosphere with several attractive social programs and involves residents in management of the facility. Seton Villa is a very good example of a facility for the elderly which provides a secure environment with a progressive care system from Independent Living to Personal Care (some Intermediate Care

is also informally provided) as well as a stimulating environment with a variety of amenities and services. However, for those whose health severly deteriorates, it is a necessary to move to a Intermediate or Extended Care facility.

Example #2: Hollyburn House, West Vancouver, B.C. (see Fig. 1-1)

Ideally located 2 blocks from the shops at Ambleside, opposite a Library and next to a Seniors Activity Centre, Hollyburn House provides accommodation for the affluent elderly. Run by a private, profit oriented organization, the facility is designed to provide two levels of care: residential (personal) and Intermediate Care. The building is divided into two functional parts. Part one is comprised of 66 self-contained unfurnished apartments (bachelor, one-bedroom, two-bedroom suites) located in the second and third floors and Reception-Administration area as well as social and dining spaces on the Ground Floor level. The south side of the building has been designed as a social dining space with a Conference Room and Bar, while the north side contains Crafts, Cards, Exercise Room, small Shop, Clinic and Beauty Salon. Part two - Care Centre: Intermediate Level 1 and 2 is located on the Ground floor level and comprises 36 furnished single units with social and dining space. The kitchen and staff facilities are located in the core of the main floor and serve these two parts simultaneously. Although the facility provides "Quality of Life" with choice of services, programs and living arrangement, there is still a problem with relocation stress for those whose health conditions

require Extended Care.

Nevertheless, the combination of Independent Living with an Intermediate Care facility points out to a new approach to the progressive care system. The created opportunity for social integration between two groups of residents may be stimulating for less able elderly. For independent living residents potential of future care in the Intermediate Care portion of the facility will assure security when one's health deteriorates.

A variety of living arrangements - several layouts of one and two-bedroom suites, beautifully designed outdoor spaces, friendly management and proximity to community services may contribute to the well being of residents. All these attributes should be employed in the CCC facilities.

Example #3:South Granville Park Lodge,Vancouver BC(see Fig. 1-2)

Designed for 120 residents, South Granville Park Lodge provides services for 42 residents at the Personal Care level and for 78 residents at Intermediate Care levels 1, 2 and 3. The facility offers 24-hour nursing supervision, meals in the common dining room, housekeeping, and several attractive social programs. The three storey building is divided into two wings. On the main floor, there is the Reception-Administration area, spacious lounge, dining room, multipurpose room and six handicapped units. The two residential floors comprise Personal or Intermediate Care units in each wing with centrally located nursing station and social area.

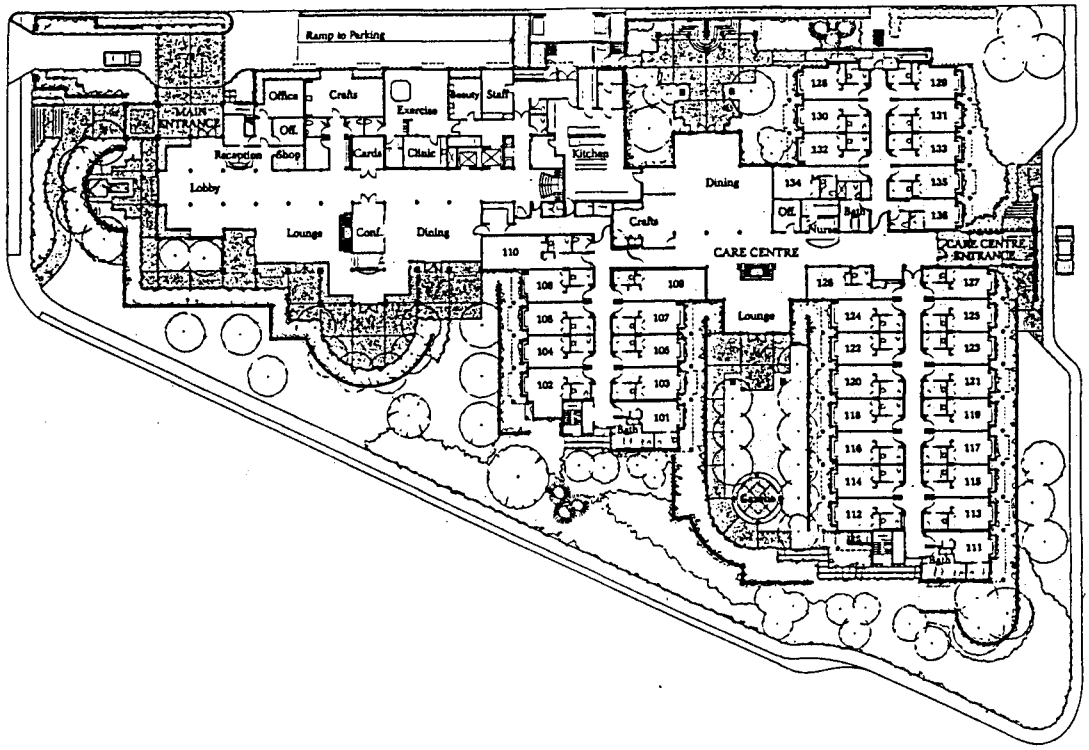


Fig. 1-1 Hollyburn House - Main Floor
Source: Neale, Staniszkis, Doll Architects

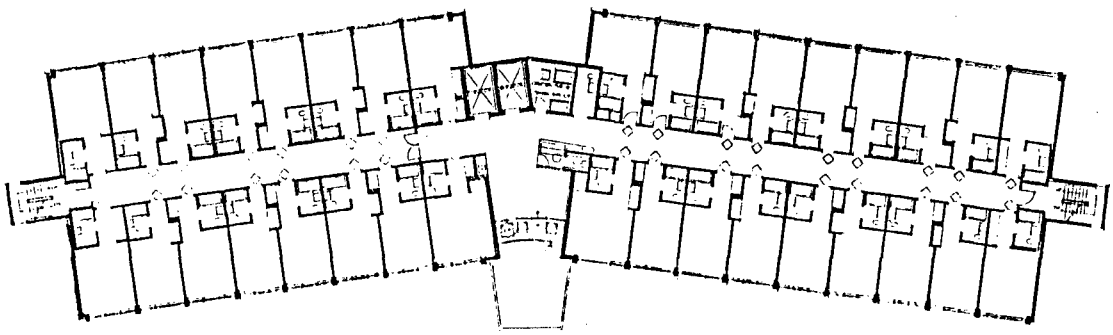


Fig. 1-2 South Granville Park Lodge - Typical Floor
Source: South Granville Park Lodge

The long corridors and anonymous entrances to each sleeping unit as well as lack of balconies as private outdoor spaces provide an institutional character to the building. Although the facility provides two levels of care, if their health deteriorates, residents still are forced to move once again to an Extended Care facility.

Example #4: St. Michael's Centre, Burnaby, B.C. (see Fig. 1-3).

The most advanced approach in terms of a multi-level care facility in the Vancouver area, was the original concept of the St. Michael's Centre. Run by a non-profit, religious organization, the original facility program called for a multi-level care complex with Day Care and Home Care services to those seniors living in the neighbourhood; Personal and Intermediate Care for those who can no longer remain independent as residents outside the Centre and the Extended Care for those requiring 24hour a day professional supervision. At the present time, the facility is comprised of 40 Intermediate Care beds and 40 Extended Care beds with common spaces: Dining Room, small Activity and Therapy areas, Lounge and auxiliary spaces. Day Care previously programmed within the facility, is located across the street in a separate building. There is a proposal for future expansion of the existing facility to accommodate 80 additional beds at the Extended Care level. It seems that the initial idea of creation of a multi-level facility with continuation of care is transformed into institutional approach -- a

geriatric complex with the Intermediate and Extended Care levels only.

TREND 2 - Congregate housing

Example #5: Parkwood Manor, Coquitlam, B.C. (see Fig. 1-4)

Parkwood Manor is an example of the second trend in the development of elderly facilities in British Columbia. This congregate house-hotel type was founded by a profit oriented organization in the heart of Coquitlam on 5 acres of beautifully landscaped grounds. The Coquitlam Shopping Centre is only one block away. Churches, medical offices, a library and other community services are also in close proximity to the site. The three-story building is comprised of four residential wings with 115 one-bedroom and 8 two-bedroom units and a central part with the main social space. On the ground floor level, in the core of the building, there is an elegant dining room overlooking the front yard, while lounge and social activities areas overlook a formal garden. The facility provides comfortable accommodation, convenience, security and opportunities for social interaction among residents. However, this luxurious environment is aimed at retired, active and affluent elderly people. One inclusive monthly fee covers rental of all private, spacious apartments, utilities, weekly maid and laundry services, regular dining room meal service, use of all in-house recreational facilities, parking and 24 hour emergency call and security. Since the facility provides only residential (personal) care, when the

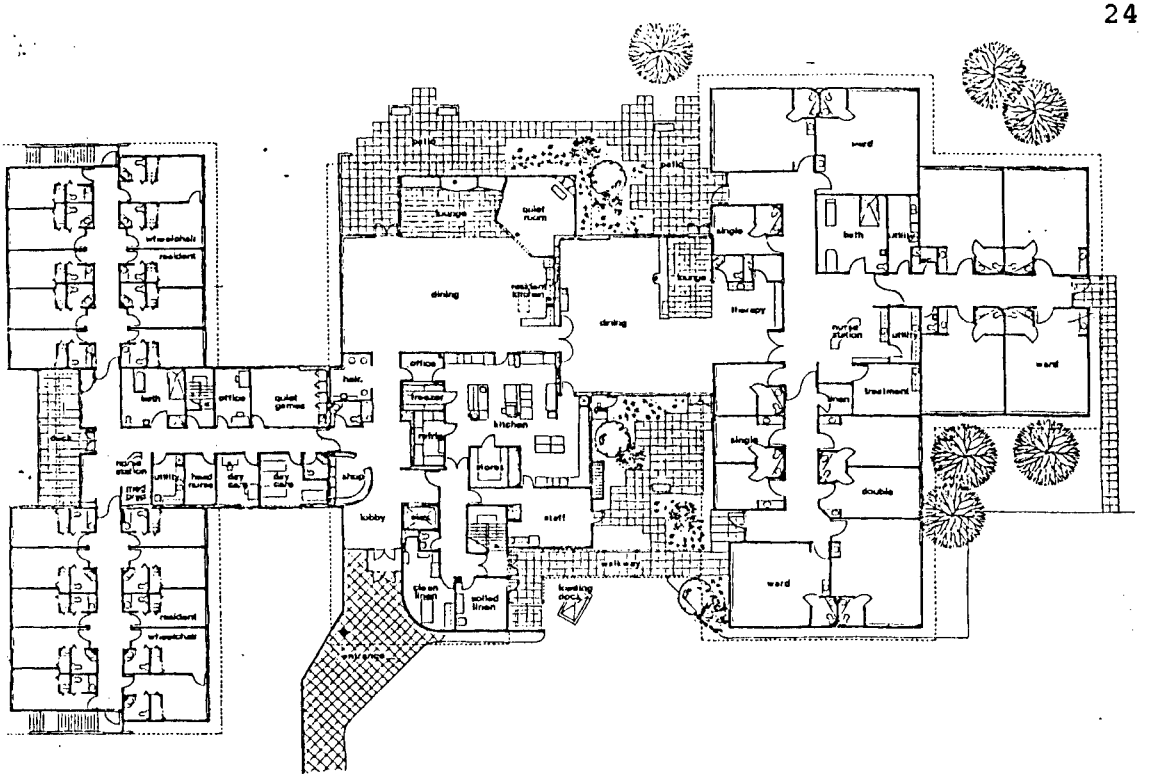


Fig. 1-3 St. Michael's Centre - Main Floor
Source: Gardiner Thornton Architects

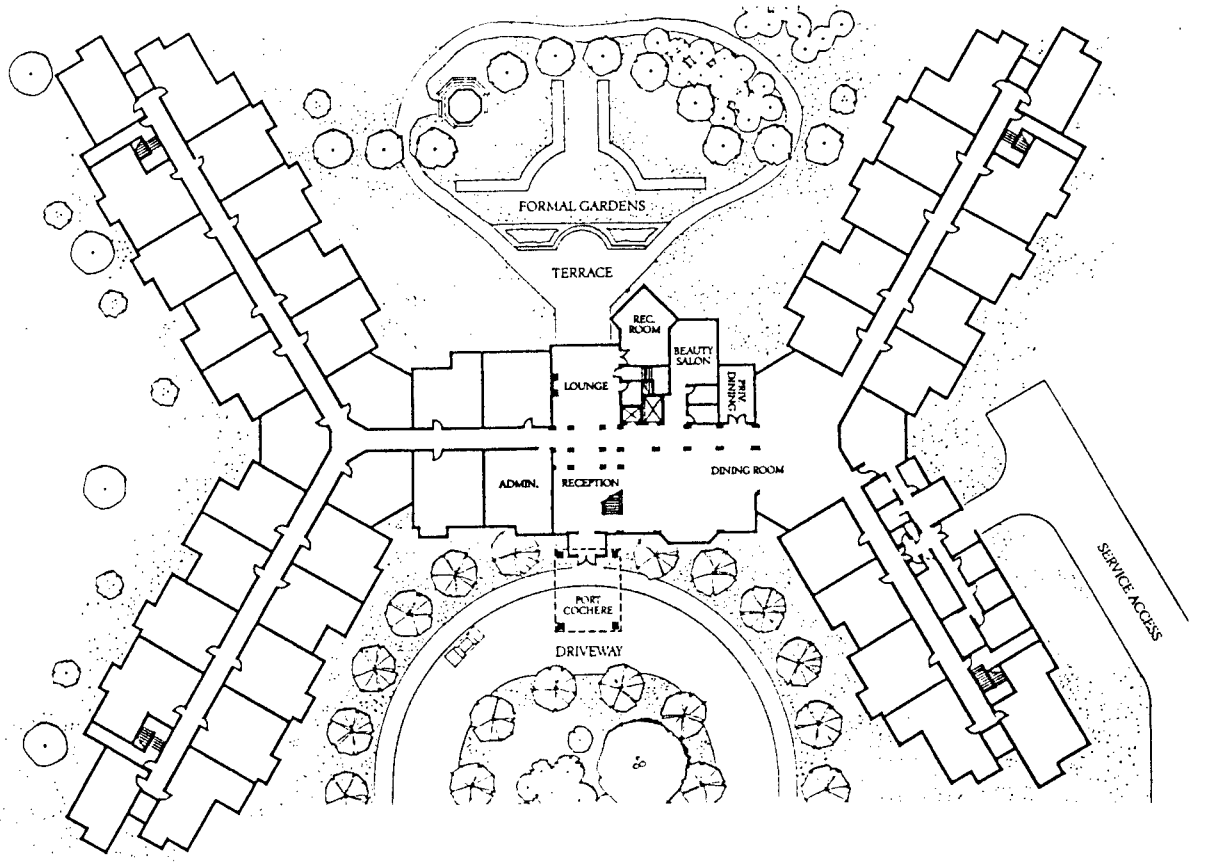


Fig. 1-4 Parkwood Manor - Main Floor
Source: Waisman Dewar Grout Carter Architects

health of a residents deteriorates they have to move to a health care facility. That is the main disadvantage of congregate housing.

Example #6: Abbeyfield, Sidney, B.C. (see Fig. 1-5)

The Abbeyfield concept is an example of congregate housing for a maximum of 9 people who live with a live-in housekeeper (CMHC, NHA 6009). Originated in England in 1956, this concept is usually located in a large house in which seven to ten people are accommodated, all with their own private spaces. However, residents share a common dining room, kitchen and living room. To assist all residents, there is a live-in housekeeper who attends to the daily running of the house, the shopping, and prepares and serves meals. The first Canadian prototype was opened in September 1987 in Sidney, B.C. Although this concept creates a close-circle atmosphere, supportive living and an opportunity for social interactions, nevertheless there is a lack of security, when one's health severely deteriorates, necessitating a move to an institution.

TREND 3 - Retirement Villages

Example #7: Arbutus Ridge Village, Vancouver Island, B.C. (see fig. 1-6)

Arbutus Ridge Village is an example of a luxury retirement complex aimed at self-sufficient, active and wealthy seniors. This project has adopted an English-country village theme.

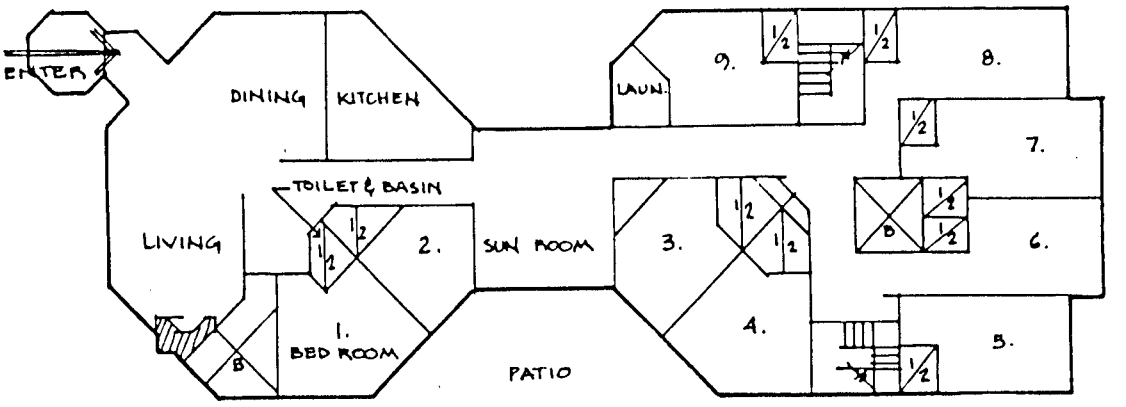


Fig. 1-5 Abbeyfield Concept - Main Floor
Source: Murray, Charlotte. Supportive Housing for Seniors: the Elements and Issues for a Canadian Model. 1989, p. 44.

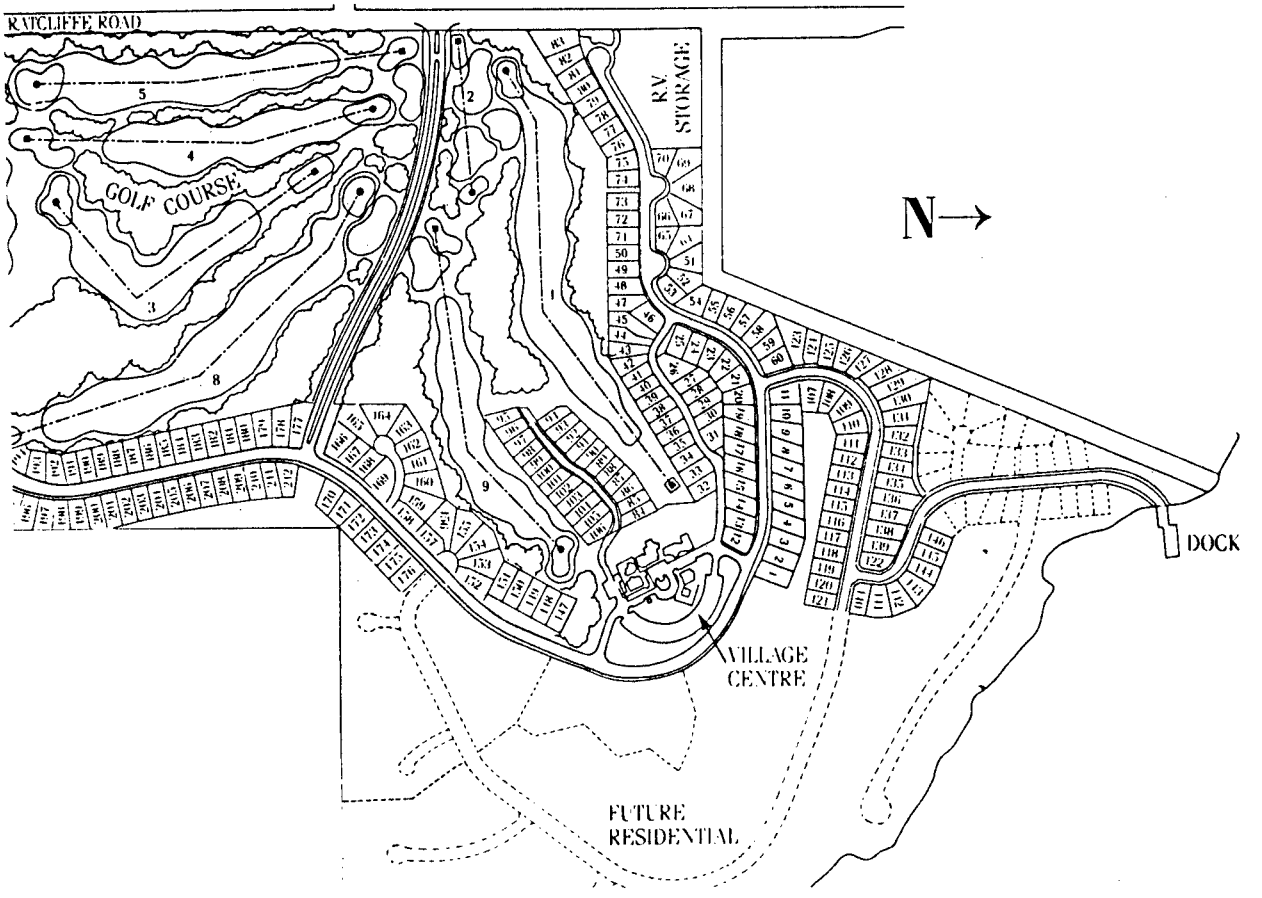


Fig. 1-6 Arbutus Ridge Village - Site Plan
Source: Canadian Retirement Corporation Brochure

Located on 218 acre of waterfront land, the village will be comprised, when completed, of 676 single family detached and attached homes and the centre. The centre eight buildings include such amenities as craft and teaching room, heated swimming pool, jacuzzi, health club, post office, banquet and kitchen facility as well as commercial amenities, such as bank, small grocery shop and beauty shop. The village features several outdoor activities: tennis, horseshoes, walking pathways, shuffleboard, year round fishing and nine-hole golf course, which provides also a luxurious park-like setting for all residents. Arbutus Ridge Village offers a stimulating environment for elderly residents. They have a choice of social and recreational activities; security and peace of mind by providing emergency signal system and the "community feeling". In spite of advantages, the village does not provide security in terms of health care. It can be obtained, however, by purchasing "home care" services and medical care in adjacent communities: Mill Bay or Duncan. Nevertheless, there will be still a problem for more frail elderly, who require health care beyond what can be provided at home.

1.1.2. OTHER PARTS OF CANADA

Example #8: Northwoodcare Complex, Halifax, N.S.

Founded in 1960 by Edward L. Roach, President of Halifax Senior Citizens Housing Corporation, Northwood Care Inc. is a non-profit organization which has developed a "shelter", "care"

and "reachout" facility. Some 859 residents of Northwood enjoy a variety of living accommodations from independent living to institutional care, in addition to the provision of "health maintenance", "health promotion", "illness prevention", and other "life-enrichment" programs through Northwood's Multi-Purpose Centre.

The Centre has been developed in phases. The first phase started in 1966 with a 73-unit self-contained apartment building for the elderly. Than, in 1969 a ten-storey high rise was built with progressive levels of care: 146 self-contained apartments, 84 "supervisory" care beds and 195 "personal" care beds. In the next phase the complex was increased by a nine-story, 297 bed "nursing" home which incorporated, on the main floor, a "Multi-purpose Centre". In 1978, the complex introduced the first Adult Day Care program in Nova Scotia. In the following years other facilities and services were introduced such as a Child Care Centre, Home Support Service and Respite care. Northwood Centre has created, over a twenty five year span, a model of excellence that has stood the test of time (Rogers 1987).

Today, the Northwood Care Complex has implemented all the necessary program components to ensure a comprehensive care system for its residents. The facility offers a stimulating environment in the Multipurpose centre.

1.1.3 EUROPE

There are other concepts of Care for the aging that could be

implemented even within the existing nursing homes or other types of facilities. For example, the British have a system of day and night care facilities for the aging. If a person has nowhere to go during the day (or lives with someone who works) and needs care, these facilities may provide care during the day (or night). Similarly in Sweden, Finland, Denmark and also in the Eastern European countries, the trend is to provide a full spectrum of services in the residential setting (Hogland, 1985). All those facilities try to meet a variety of needs of the elderly.

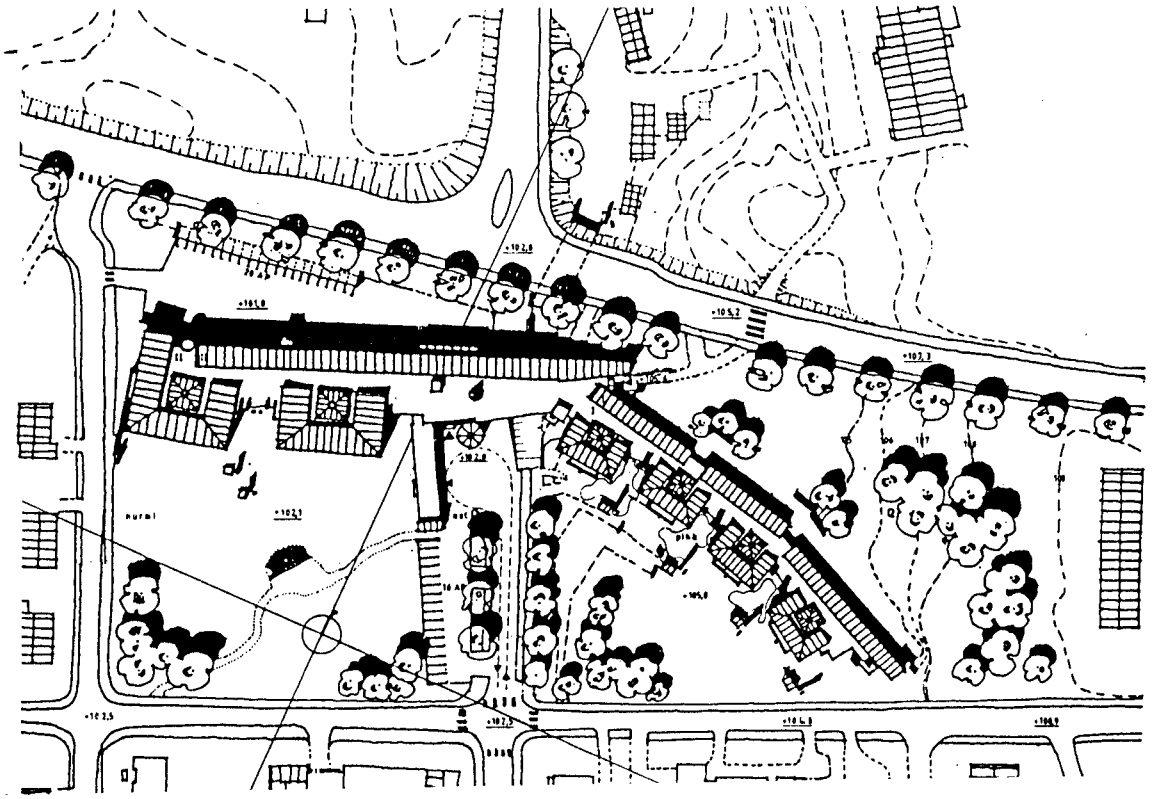
Example #9: Hausjarvi, Finland (see Fig. 1-7)

In Finland, there was recently an architectural competition for "more human health facilities" in Hausjarvi, a typical rural municipality. The first prize winner has proposed a primary health centre, an extended care ward of 30 beds, an old-age home designed for about 45 residents and a community centre for other elderly people living in the neighbourhood (Kotilainen, 1987).

1.1.4. THE UNITED STATES OF AMERICA

Example #10: Motion Picture and Television Country House and Hospital, Woodland Hills, CA (see Fig. 1-8).

Residents of a Multilevel Care Facility - Motion Picture and Television Country House and Hospital in Woodland Hills in California are sponsoring their own community. All residents



A

B

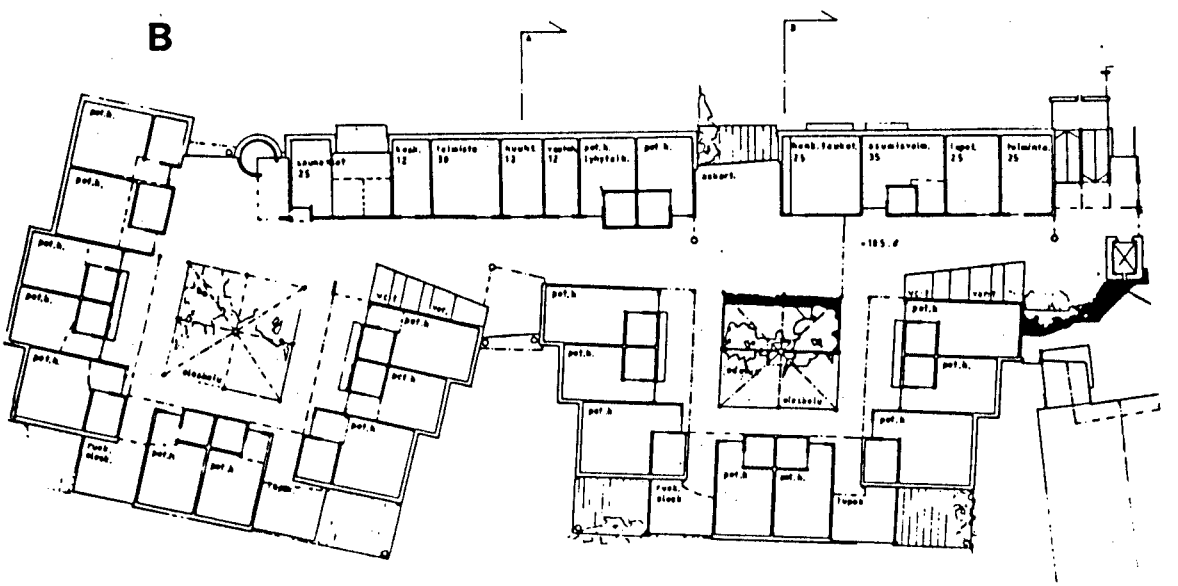


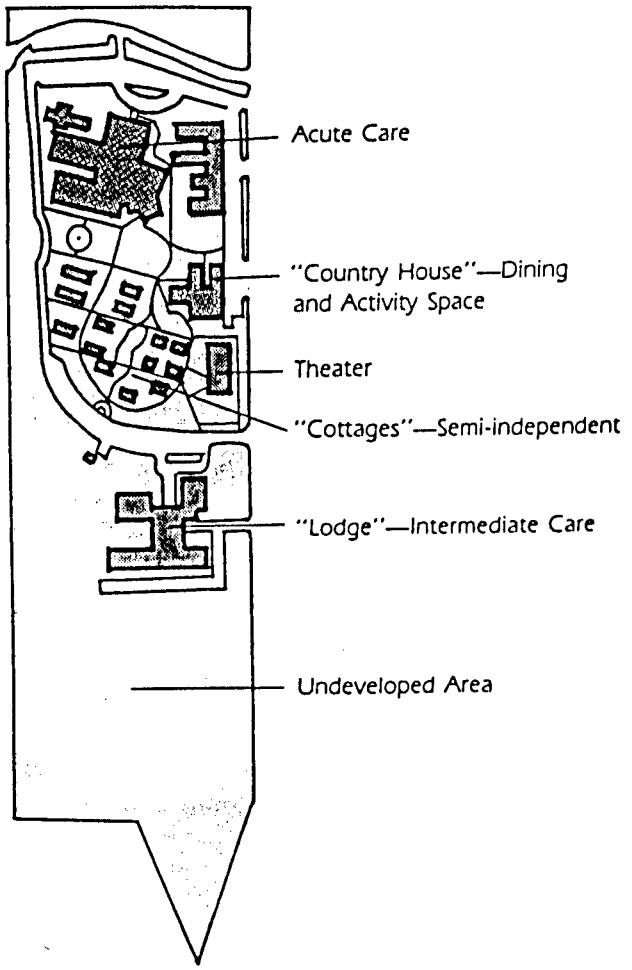
Fig. 1-7 Hausjarvi Health Care Facility: A - Site Plan, B - Residential Cluster Layout

Source: Hausjarvi Health Centre and Old People's Home Design Competition. Arkkitehtuurikilpailuja. 1987, 2,pp.17-18.

have worked in the motion picture and television industry and have contributed to a fund over a period of years to guarantee their life care. Founded in 1942, the Motion Picture and Television Fund provides health care and housing for retiring members of the entertainment industry. On a forty-one acre country site the MPTF operates three somewhat distinct communities: first, a lodge for the Intermediate Care residents; second, semiattached country-type cottages for semi to fully independent living and third, a modern acute care facility. The natural character of the site is preserved by a landscape and waterway system which enhances the early California vernacular architecture. The current project designed by Bobrow, Thomas and Associates, an architectural firm in Los Angeles, includes expansion of the acute care hospital, and addition of a skilled nursing facility, and cottages for semi-independent living. Also planned are a new administration building and the outpatient clinic. With these additions, the MPTF will be able to provide comprehensive care for nearly 500 residents.

Example #11: Regent Point, Pasadena, CA (see Fig.1-9)

Regent Point, is a retirement community owned and operated by the Southern California Presbyterian Homes. Designed by Neptun & Thomas Associates in Pasadena, the facility has 370 units: 136 semi-attached low-rise units for independent living, 234 personal care units in a four story apartment building, and skilled nursing-care units in a two-story building. A centrally



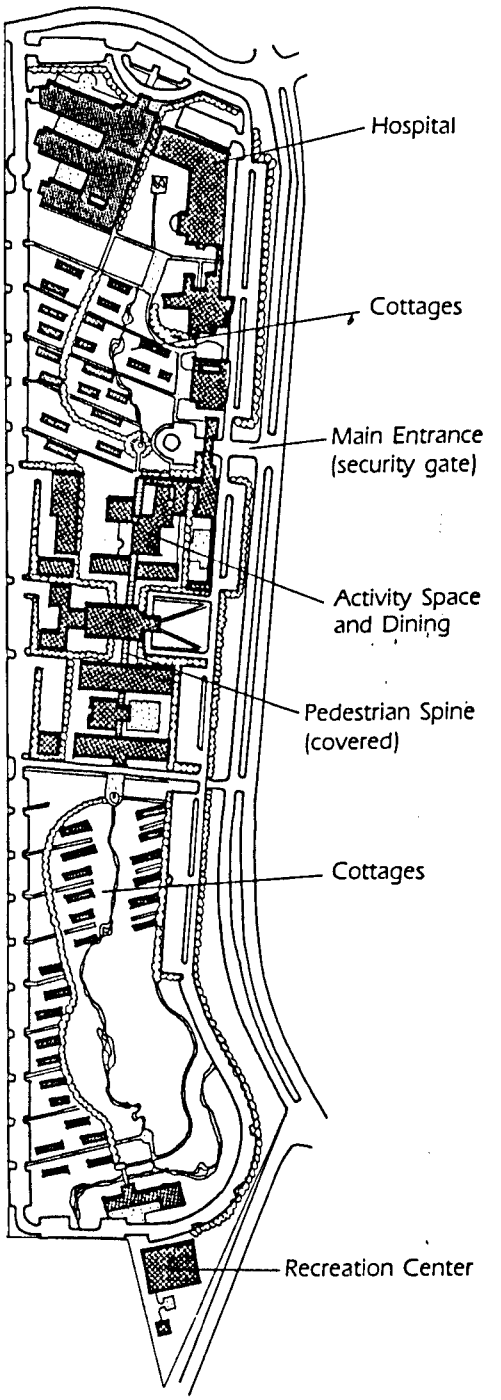


Fig. 1-8 Motion Picture and Television Country House and Hospital - Existing Site Plan and Proposed Site Development.

Source: Carstens, Diane Y. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. 1985, pp. 44-46.

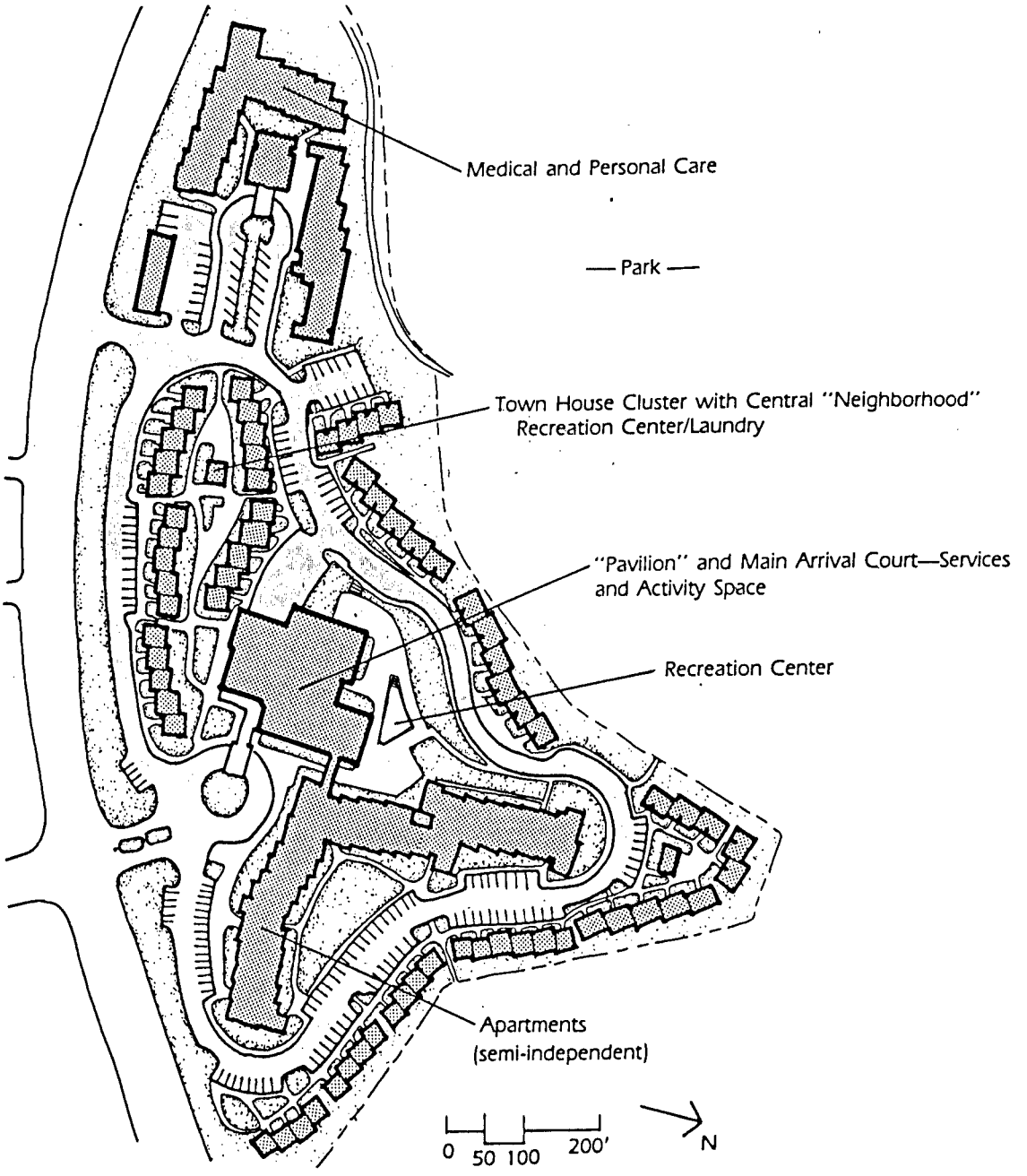


Fig. 1-9 Regent Point - Site Plan
Source: Carsten Diane Y. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. 1985, p. 48.

located Dining Pavilion and Recreation Centre is connected with semi-independent living units. The site has been developed to maximize its hilltop view of the adjoining regional park.

1.1.5. CONCLUSION

All of the foregoing examples include several merits in the creation of a specific environment for elderly people. The multi-level care facilities provide progressive care and a variety of social services. The congregate examples provide supportive living in close-circle home-like atmosphere and an opportunity for social interaction. The retirement villages create "community feelings" in stimulating leisure oriented environment. All these approaches may have a great impact on well-being and life satisfaction of the elderly. This thesis will propose a CCC facility program which will try to implement many of all these features in order to create a quality multi-level care environment.

1.2. REVIEW OF THE CURRENT POLICIES OF ELDERLY HOUSING

In the last seventy five years, life expectancy has increased substantially and the proportion of older citizens has grown and is growing constantly. In British Columbia, the increase in the elder population is substantially greater than for Canada as a whole. In 1981, 10.9% of British Columbians were aged 65 and over; 2% were aged 80 and over. Projections for the year 2001 are 13.5% and 3.6% respectively (Seaton R. and M. Rajan 1987). Central Statistics Bureau projections for the GVRHD by Local Health Area (LHA) assume an increase in the aging population for Vancouver LHA in years 1986-2001 as follow: for the total population 3%, for aged 65 and over 10%, and for aged 85 and over 54% (GVRHD Report, 1987, Appendix A, Table 2). These trends create a demand for housing as well as health care services for the elderly in much greater scale than we have ever experienced. However, both utilization of services (demand side) and provision of services (supply side) will be influenced by evolving societal trends and policy directions. The general consensus suggests that, overall, facility care will decline, particularly at the lower care levels, and demand for home support services will increase (GVRHD Report, 1987, p.6).

Provincial Level

In British Columbia, there is evidence of this trend in the differential rate of the growth of facility care and home based care. There is a recommendation in the provincial government

policy to reduce facility referrals for Intermediate Care Level 1 and Level 2 clients to the greatest extent possible. It is unlikely that the increased home support services will reduce the need for facility care at the Extended Care Level or even the Intermediate Care Level. However, the Government will not be funding the construction of long term facilities at current levels of usage (Tate 1987, p.4). The disparity between the supply and demand will lead to an increasing number of private market unsubsidized care facilities (retirement or congregate housing, long term care facilities primarily at the lower care levels). At the same time when the Government will be cutting funding of long term facilities, that are accessible to all, the private market will be providing luxury units only to those who can afford them. Obviously, this will result in the creation of gaps in the care system for the majority of the seniors population, with some elderly remaining at home beyond their ability to maintain themselves with homecare. Consequently, there still will be a necessity for the elderly to move from one facility to another because of lack of a full range of services and expensive acute hospital care will continue to be a substitute for Intermediate and Extended Care.

Greater Vancouver Regional District Level

The growing population of older citizens, especially the fastest growing segments of people aged 74 to 85 and older, increase the demand for facilities for the elderly. Other trends

which may increase the demand for or utilization of services include:

1. Fewer family care-givers among family members due to:

   rising divorce rates which result in fewer spousal care-givers;

   high mobility which requires adult children to live at some distance from their aging parents;

   increased female participation in the workforce which limits the ability of adult daughters (the traditional care-givers) to care for their aging parents;

2. Higher expectation of quantity and quality of services: over time, the elderly will be better educated and better informed. Consequently, they will demand additional home support services such as: home makers, adult day care, respite care, care-giver support.

3. Expansion of the traditional client group: the elderly and the young disabled - the traditional client groups will be enlarged by AIDS patients by whom utilization of homemaker services has been increasing.

However, there are other assumptions and trends that may decrease the provision of or utilization of services:

1. Lower tax revenues: fiscal restraint will continue to squeeze resources for all services in the health care sector (a decline in the percentage of the population in facilities at the lower care levels without concurrent increase in the number of homemaker hours).

2. Quality of life considerations: current thinking is that enabling the elderly to remain in their own home with support services, rather than caring for them in facilities, is beneficial in terms of their health and life satisfaction in addition to the perceived economic benefits. Consequently, facility care will be concentrated on very frail elderly.
3. Increasing emphasis on health promotion and prevention: greater recognition by individuals, health care professionals, and governments of the importance of psychological and lifestyle factors in maintaining good health and increased research into and regulation of occupational and environmental conditions will help the elderly to live longer, be more active and alert, and enjoy better health.
4. Increasing economic independence for the elderly: while the elderly have traditionally had relatively low incomes, especially women, there is some evidence that their economic situation is improving due to: removal of compulsory retirement in many settings, government encouragement of private savings (RRSP), insurance and increasing number of workers with pension plans. The above simply provides another source of retirement income.
5. Innovative housing options: the private sector is responding to the growing elderly population by supplying various forms of supportive housing (meal service, caretaker/manager, alarm systems etc) which enable the elderly to avoid or delay facility care. All these trends are likely to influ

ence the provision and utilization of services (GVRHD Report, 1987, p.3-7).

The Extended Care Subcommittee of GVRHD outlined several recommendations. First, there will be a major reduction in facility referrals at the lower care levels (PC, IC1 and IC2). However, there will be encouragement of "various forms of appropriately designed, affordable housing for the elderly in the community". Moreover, there will be a major increase in resources for home support services and a concurrent increase in ancillary services needed by the elderly in the community, e.g. meals-on-wheels, adult day care, respite beds, rehabilitation services. In addition, there will be provision in facilities for an additional 960 Intermediate Care (level 3) and 1850 Extended Care clients over the next fifteen years.

Nevertheless, there will still be a shortage in facilities for the elderly especially at the higher levels of care. Innovative housing options which were recently built e.g. congregate housing, Abbeyfield model or multilevel facilities (practically only two levels of care) do not provide all kinds of services needed by aged people. Most of these new options are provided by the private sector which is profit oriented. Therefore, there is still a need for new, innovative solutions which will support all above mentioned recommendations of GVRHD and bridge a gap between seniors' housing and a health care facility for the elderly.

1.2.1. FINDINGS AND PROBLEM STATEMENT

Findings:

The Extended Care Subcommittee of GVRD has specifically recommended and encouraged "various forms of appropriately designed, affordable housing for the elderly in the community". This is one of most important aspects of the contemporary approach to elderly housing: seniors have to stay within the same community they have been living in. Therefore, the same subcommittee further recommends an increase in resources for home support services, meals-on wheels, adult day care, respite beds, rehabilitation services and others.

Problem Statement:

Both the provincial government and GVRD predict that they will not be funding the construction of long term care facilities at current levels of usage. There will be a disparity between the actual supply and demand. This will result in the creation of gaps in the care system for the majority of seniors, especially those who can't afford retirement or congregate housing provided by the private market. So, it will be necessary for the elderly to move from one facility to another because of lack of a full range of services. This creates a problem which has to be addressed.

Summary:

The situation is clear: both, the provincial Government and GVRD (they both share expenditure for elderly housing) are looking for innovative options and design solutions which could

meet needs and expectations of a new wave of seniors at the end of this century.

1.3. THE CONTINUUM OF CARE COMPLEX IN POINT GREY AS ONE OF THE OPTIONS AND INNOVATIVE APPROACHES TO SOLVE THE ELDERLY HOUSING PROBLEM.

The proposed Continuum of Care Complex in Point Grey has one major goal: to create a comprehensive facility for the elderly that provides all levels of care with a wide range of services that meet a variety of residents' needs. In the CCC the housing alternatives for the elderly will range from Independent Living units and Supported Independent Living Units to Dependent Living Units. There are indications (Cluff 1986), that a Continuum of Care facility may reduce the capital and operating costs of services and at the same time increase the quality of care as well as quality of life for the elderly. However, this thesis will not evaluate the capital and operating costs. These issues would require separate studies and they are not the subject of this thesis. Moreover, financial security of the residents may be an additional advantage of a CCC because there could be a stable rent payment arrangement controlled by government agencies (BCMHC, CMHC, GVRHD, MOH). The CCC facility is assumed to be accessible for all, even for those with very limited income.

The proposed CC Complex will have a more comprehensive program which will provide personal, social and health care services not only for residents but also for the entire Point

Grey community. By providing a functional, attractive and comfortable environment for the residents and visitors, and by involving the elderly in its management, the CCC may create a strong link between the CCC 'community' and the outside neighbourhood.

1.4. RATIONALE OF THE THESIS

This thesis accepts the hypothesis, that multi-level care is a viable way of achieving an environment which may fulfill a comprehensive array of needs of the elderly. The facility program study of this thesis expands that basic hypothesis arguing, that a CCC should include housing alternatives for the elderly both in terms of tenure and supporting services, but above all should provide a specific ambiance equal to a home-like environment. The thesis goes on to demonstrate how such a facility may be organized. Examples of partial multi-level care are common in the USA in retirement villages. This thesis will attempt to achieve some of those amenities on an urban site.

CHAPTER 2 - SUPPLY AND DEMAND: ANALYSIS OF THE ELDERLY HOUSING OPTIONS AND SERVICES IN VANCOUVER AND WEST POINT GREY AREA.

Chapter Summary:

Chapter 2 concentrates on the analysis of the contemporary elderly: their means, expectations and social profile. Findings have been presented in the form of the characteristic features of the future clients of the Continuum of Care Complex and also in conclusions to be implemented in the facility program. The elderly population in Vancouver in general and in Point Grey in particular has been analysed, based on census data, in terms of family households, home ownership and dwelling characteristics. Senior housing resources, dwelling units, long-term care beds and senior centres in Vancouver's West Side serve as a research background for this chapter's objective: to investigate the need for establishment of a CCC in Point Grey in terms of its future residents, location and unique environment.

2.1. THE CONTEMPORARY ELDERLY: THEIR MEANS AND EXPECTATIONS.

2.1.1. CURRENT TRENDS.

As Harlow Unger noted in his Stateside - Column: University towns show building boom (Canadian Building, 1988); the biggest surprise after the October 1987 stock market crash and subsequent decline in housing starts, was the fact that the United States college towns have been experiencing an unprecedented housing construction boom. The cause of the boom was the

exploding population of American retirees. Now, they no longer move to the traditional retirement villages in the U.S. South and Southwest, but instead favor the active cultural environment of college and university communities. Who are those retirees?

First, they tend to be wealthier, more cosmopolitan retirees who have found their existing suburban communities too sterile and nearby cities too costly. What are they looking for? Their expectations can easily be satisfied in college and university towns which offer all the cultural advantages of major cities - concerts, opera, theatre, lectures, museums, adult education as well as safe (low crime) environment.

Vancouver's safe environment, its scenic coastal and mountain beauty, its temperate climate, its impressive cultural, academic (the University of British Columbia and Simon Fraser University) and recreational advantages and its commercial and business importance, continue to attract more and more people, including senior citizens, from all over Canada and the United States.

With steady population growth projected to continue, particularly the population age 65+ may increase by about 35% between the years 1986-2001 (GVRHD Report, 1987), the pressures on housing supply will grow. Low vacancy rates in rental accommodation and at the same time escalating resale prices for homes call for new, innovative solutions and housing options specially for the elderly population.

In summary, the "new" emerging group of the elderly people,

who will dominate the housing scene in the next few decades can be described as follows:

- older people who value independence more than anything else
- they want to stay out of institutions
- they don't want to live with their children
- they prefer to live alone in more stimulating communities
- they tend to be wealthier and more cosmopolitan

2.1.2 FEATURE CHARACTERISTICS OF SENIOR CITIZENS - THE FUTURE CLIENTS OF THE CONTINUUM OF CARE COMPLEX (C.C.C)

Feature #1: Housing and Income Levels:

Majority of Senior Citizens in Canada in general and in British Columbia in particular own their homes (see Appx.#2-1).

The first group of more affluent senior homeowners may be willing to move to new housing, if such housing responds to their specific needs. The most attractive tenure type will be a strata title condominium, where they can invest a portion of any equity recovered from selling their present home.

The second group of seniors is made up of those "go-go" relatively healthy individuals who are not as well off as the previous group, but are active, willing to participate and establish co-operative housing, based on the CMHC assistance programs.

The third group will be made up of seniors living on a fixed income, with no financial resources, who badly need social assistance. The best form of housing for this group, would be the BCHMC programs.

The fourth group will be those, who need Long Term Care on a continuous basis, and qualify for facility-based care financed by the Provincial Ministry of Health.

Conclusion #1: The CCC should provide a variety of housing tenures for its future clients.

Feature #2: Family and Social Status

The elderly population is extremely diversified in terms of family status, household arrangements and social status: elderly couples, those living with families or friends, unattached (living alone) individuals, more active and "no-go's", healthy and wheelchair handicapped and so on.

Conclusion #2: The CCC should create a physical and social environment responding to the needs of a broad spectrum of the elderly population.

Feature #3: Health Care Needs.

Access to and quality of health care services are major elements contributing to the well-being of most senior citizens. Case study analysis (see Appx.#2-1) indicates the whole complex framework of the existing available services in terms of:

- general medicine (doctors; clinics)
- rehabilitation (physical, mental)
- personal care: home care and home support services
- long term-care: intermediate and extended care
- respite care
- day care

- short stay assessment and treatment
- pharmacy

As the City of Vancouver grows in terms of the economic resources and population, it will face traffic congestion and communication problems as any other metropolitan area. This of course may affect seniors' easy access to health care services, now scattered all over the city.

Conclusion #3: The CCC should provide all levels of health care services (except acute care) in one place.

Feature #4: Lifestyle and Expectations

Contemporary seniors expect more than their predecessors in terms of quality lifestyle. They are more educated, healthy and more sophisticated in their expectations. They are looking for an attractive, natural environment, yet close to the cultural centres of metropolitan life where they can enjoy:

- sport and recreation
- secure environment
- leisure and retreat
- cultural activities
- companionship

Conclusion #4: The CCC should take advantage of the natural beauty of the BC environment and be located close to the University, Recreational and Cultural Centres and major shopping area.

Feature #5: Seniors Everywhere.

The growing population of senior citizens in any community

across Canada together with the market forces in the housing industry, call for a general rather than a specific local approach to seniors' housing problems. Any consideration for a new facility or housing project, should take into account the catchment area far beyond the actual community.

Conclusion #5: The CCC shall be a destination for the local residents and also for those from Metropolitan Vancouver and Canada.

Feature #6: Flexibility and Continuity.

The only constant and certain characteristic of all the elderly is that they change continuously. Because of this phenomenon, the physical and social environment they are suppose to live in must be flexible.

Conclusion #6: The CCC should create an environment, which should provide for:

A. Flexibility in housing options in terms of:
   1. form of tenure
   2. types of dwelling units
   3. accessibility for the physically handicapped.

B. Continuity in health care services provided in only one place:
   1. from Independent Living
   2. to Long Term Care.

2.2 THE ELDERLY IN VANCOUVER

2.2.1 ELDERLY POPULATION: THE PEOPLE AND THEIR HOUSES.

In 1986 the number of people 65 years old and over in the city increased from 57530 in 1971 to 64,415 and composed 15 percent of the population and 22 per cent of the households. About 35,000 of the elderly are living in the West Side of the city. Half of the elderly rent and half own their homes. The elderly are the least mobile of the city's households. Most have lived in their present homes for at least five years, but 36.6 per cent have lived there for ten years and over (McAfee, Donegani 1985).

In 1986 the traditional two-parent family with children occupied only 1 in 5 homes. An equal share of homeowners were aged 65 or older. By the year 2000, the elderly could occupy 1 in 3 single family houses.

The Vancouver Planning Department reports: there is a growing number of single family households with members age 65 and over. In 1981, there were 14,500 seniors households (14 per cent of all households, see Fig. 2-1). The Vancouver Planning Department projections for the same area in 1991 is about 20,000 single family households with member age 65+ (see Fig. 2-2). Potential movers to alternative housing will be between 20% minimum and 50% maximum (The Vancouver Planning Department data). Projections for year 2001 assume 22,800 single family house-holds with member age 65+ (see Fig. 2-3).

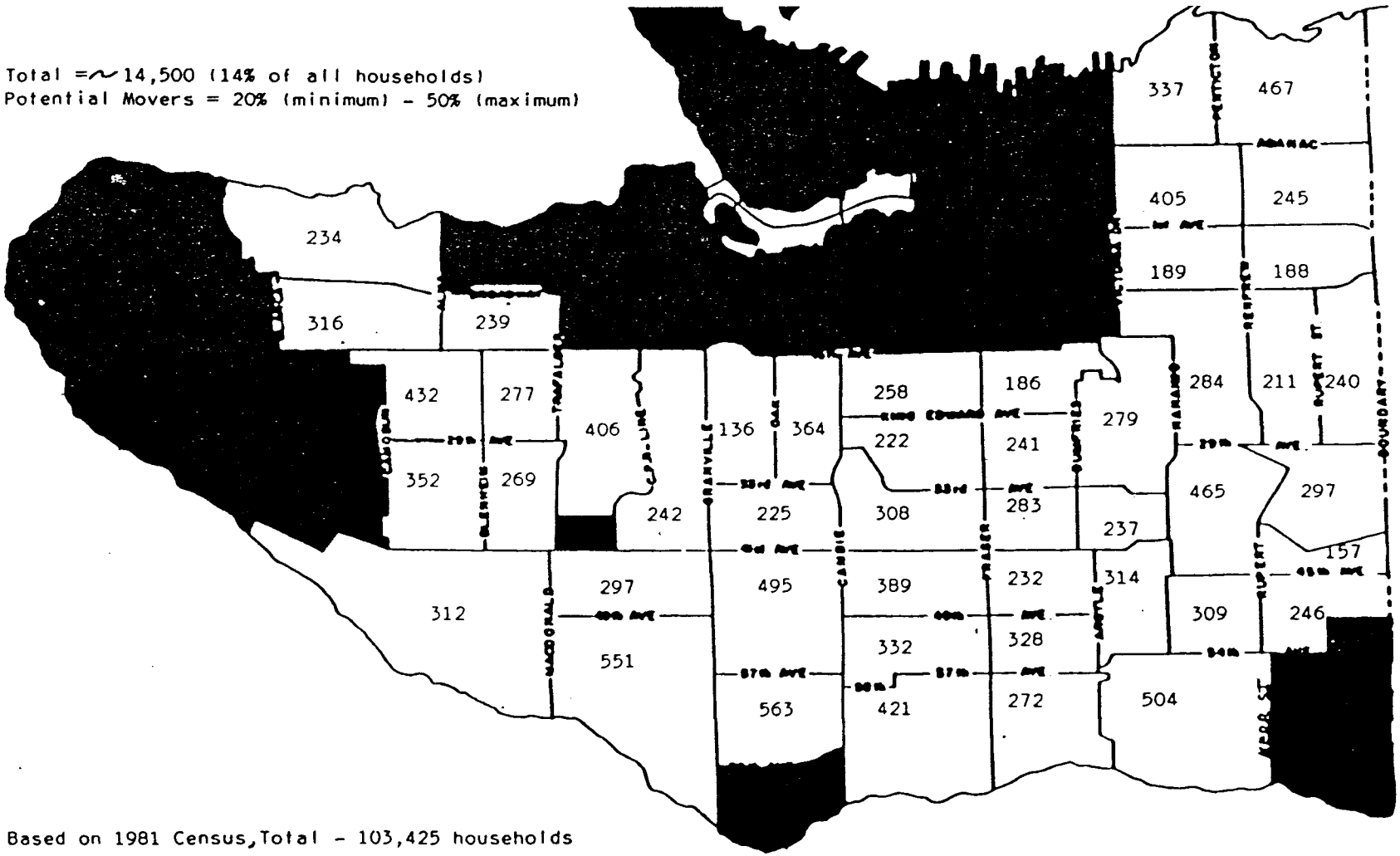


Fig. 2-1 1981 - Single Family Households with Member Aged 65+
Source: City of Vancouver Planning Department

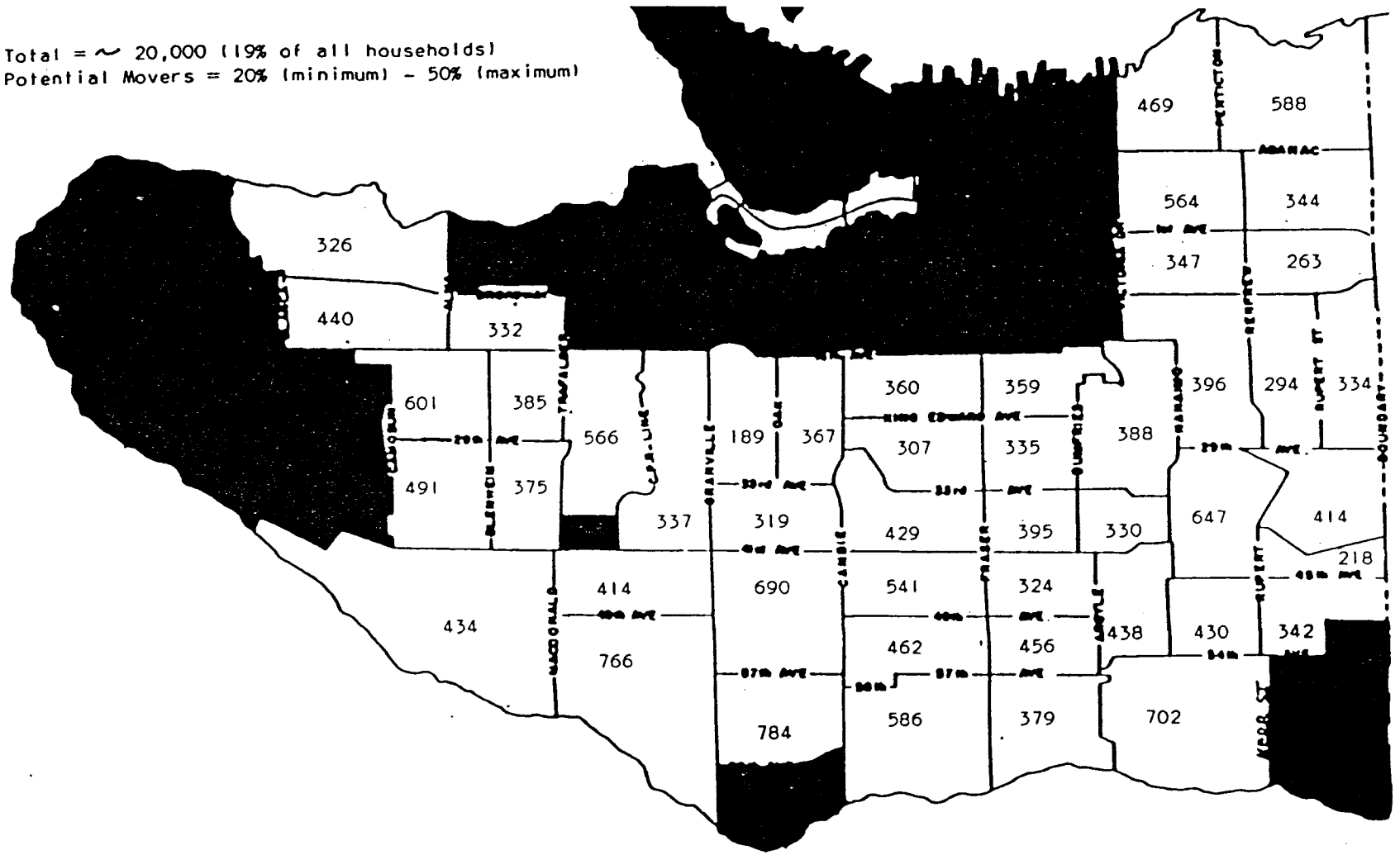


Fig. 2-2 1991 - Single Family Households with Member Aged 65+
Source: City of Vancouver Planning Department

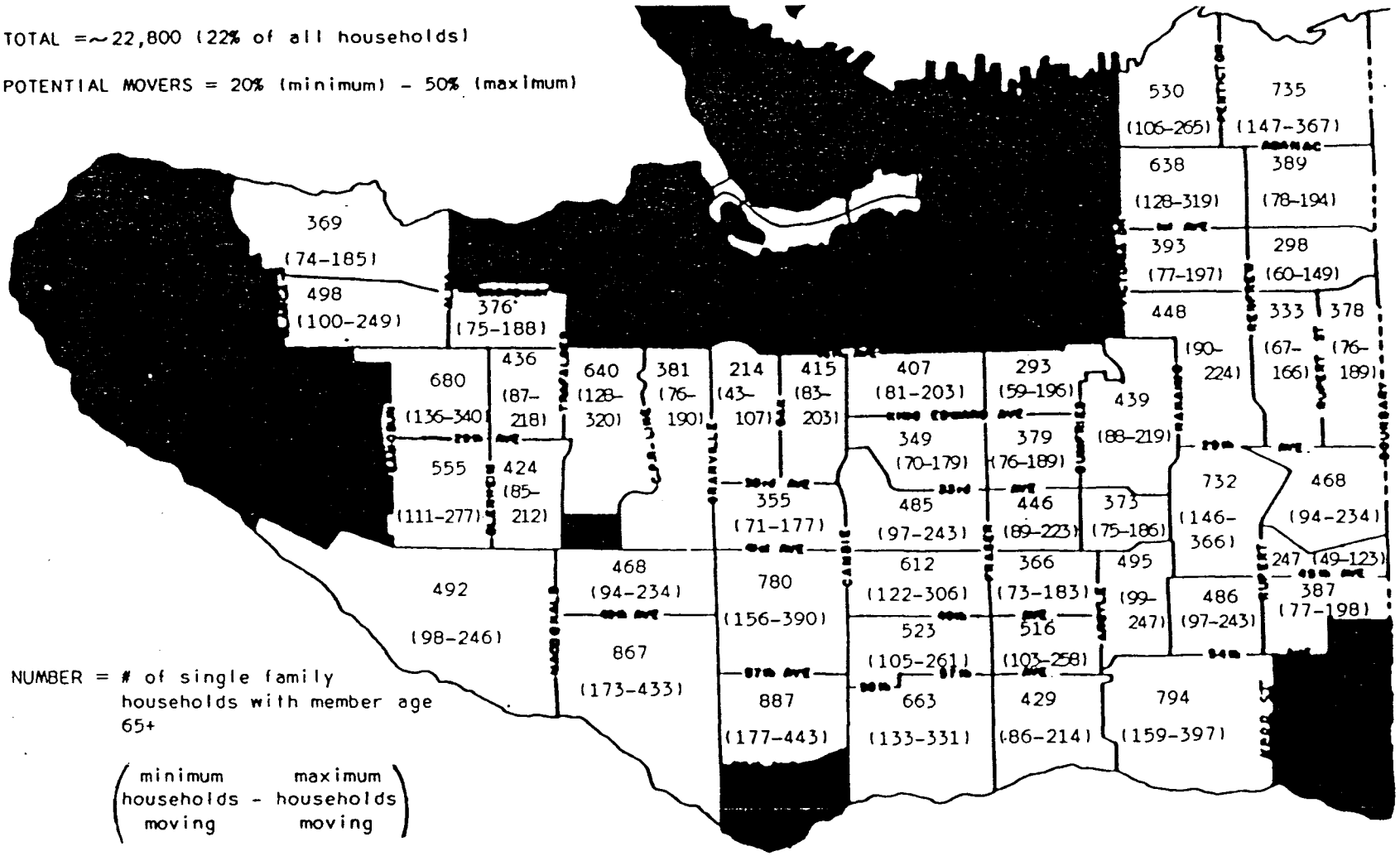


Fig. 2-3 2001 - Single Family Households with Member Aged 65+
Source: City of Vancouver Planning Department

Table 2-1.--Projections of the Elderly Homeowners and the potential movers in Vancouver: (1981 census)

YEAR	HOUSEHOLDS TOTAL COMPARISON BASE	ELDERLY HOUSEHOLD %	TOTAL	POTENTIAL MOVERS MIN 20%	MAX 50%
1981	103,425	14	14,500	2,900	7,252
1991	103,425	19	20,000	4,000	10,000
2001	103,425	22	22,800	4,560	11,400

2.2.2 SENIORS' RELUCTANCE TO MOVE VERSUS ATTRACTIVENESS OF A NEW PLACE.

The City's Planning Department (Draft 1985) has concluded that the elderly do not choose to move because of preferences which stem from emotional attachment to their homes or neighbourhoods:

- familiarity with the environment
- location of children and family
- fear of debt
- change in general
- crime
- memories of younger years
- length of term of residence
- the lack of viable alternate housing

The Planning Department claims, that declining health does eventually force 10% of elderly homeowners to move from their

family home into long-term care. Another 10% sell and move from their single-family home to smaller, self-contained dwelling.

There are characterisitics, which (in theory) might encourage the elderly to move from larger to smaller housing:

- their houses are often larger than required
- the aging process creates physical limitations, which increase the difficulty of maintaining a house and garden.
- aging increases the likelihood of illness or death of a spouse, which may result in the surviving partner seeking alternate housing.
- most elderly homeowners own their home outright (equity); a substantial asset should they choose to sell.

Several studies have found (McAfee, Donegani 1985) that 50% of today's elderly homeowners would consider moving if:

1. They could find the type of home they want.
2. At a price they could afford.
3. In the location of their choice.

Location, however, becomes of paramount importance in any decision to move. In general terms, locations preferred, by the elderly would be (McAfee, Donegani 1985):

- in their own neighbourhood
- within walking distance of services, families and friends
- near public transportation
- near concentrations of elderly people
- not too close to concentrations of children.

2.2.3. THE CITY'S HOUSING POLICIES AND MARKET FORCES.

"The Goals for Vancouver" a major policy guideline document recommended that housing for the elderly in their traditional neighbourhoods be encouraged and that opportunities for families to live in the city be expanded.

Obviously, there is a link between these two goals. It is a known fact that there are limits to the city's existing housing stock and its scarce supply of land. Family housing requires large ground oriented units. However, alternative housing for the elderly can be built at higher density, therefore can help the elderly remain independent for a longer period. The key issue to meet these two objectives is the zoning by-law. The City could assist those who wish to relocate near their present home, by ensuring that zoning allows some choice of housing type. Actually, the city can only zone land to permit development. From that point, the provision of new housing depends upon market forces = the demand of the elderly who are prepared to move and a supply of appropriate units built by developers. The Vancouver Planning Department's projections of new seniors housing needed by 2001 to accommodate elderly homeowners alone amount to 13,700 units to meet the needs of aging homeowners (see Fig. 2-4).

2.3 THE ELDERLY IN POINT GREY

2.3.1 VANCOUVER WEST SIDE: TRENDS AND PREFERENCES.

Demographic studies in Vancouver's West Side (Rebalski 1988)

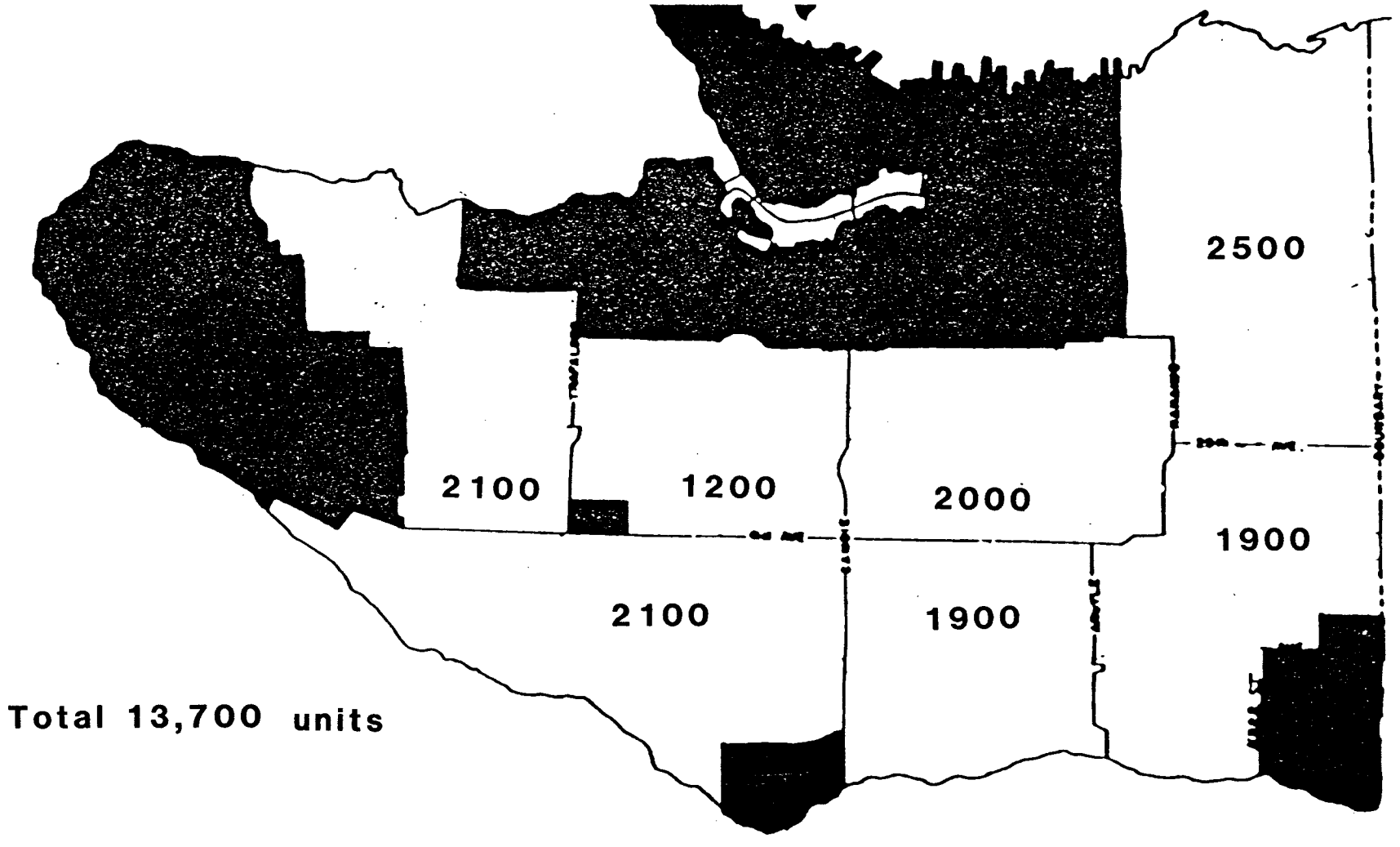


Fig. 2-4 Projection of Senior Housing Needed by 2001 to Accomodate Elderly Homeowners
Source: City of Vancouver Planning Department

show a need for more seniors housing for those who otherwise might feel forced to leave the neighbourhood to find appropriate accommodation. Current (1988) estimates of the City's Planning Department indicate as many as 10,000 Vancouver seniors who presently own their own detached houses might be interested in moving to other forms of housing if it was available.

According to the recent survey of housing preferences of West Side residents carried out by Michael Geller & Associates Ltd. "Is Your House Getting Too Big?" (1987), 71% of those who responded were 55 years of age or over. While the preferred building type was townhouses, there was interest in lowrise apartments as well as apartments 5 storeys and over. Respondents were looking for apartment buildings with services including communal dining facilities. There were two preferable locations: one near 10th and Tolmie and the second near 4th and Alma, which was chosen particularly by those 65 years old and over.

2.3.1.1 The Elderly in West Point Grey Area

Particularly, in West Point Grey area, the elderly compose 15.4 per cent of the total population of 11,540. Elderly men form 5.76 per cent and women 9.66 per cent. However, the population in their fifties and early sixties is relatively higher, 9.66% and 10.31% respectively. Therefore, we can assume that the number of the elderly in West Point Grey area will increase.

2.3.1.2 Dwelling Characteristics

There are 4,625 private dwellings in West Point Grey area

with 2770 owned (59.9%) and 1850 (40%) rented (Census 1986). We can assume that the older people living in the rented dwellings will be in the future potential applicants for alternative housing or facility for the elderly.

2.3.1.3 Household Characteristics

In West Point Grey 1760 persons 65 years old and over live in private households, 33% of them is live alone.

2.3.1.4 Census Family Characteristics

The family profile in West Point Grey area composes of 50% of families without any children or children no longer at home. This group is at high risk of going to a nursing home if they become ill. Therefore, we can assume that a significant number of the elderly would seek another living arrangement with more security in terms of health care due to lack of family supervision.

2.3.2 THE EXISITING SENIOR HOUSING IN POINT GREY

In Vancouver, in general, there are limited choices for elderly single family homeowners who wish to move to other housing in their neighbourhood. Particularly, the West Point Grey area is built to capacity. There is only one Seniors Social Housing project, Steeves Manor, on Wallace Street. This project comprises 200 dwelling units. Next to the thesis subject site on West 4th Avenue, there is under construction a 10 storey residential building with 45 self-contained dwelling units, which are seniors oriented. In addition, there are two

condominuum developments under construction: "Mayfair House" with 81 units (one and two bedroom) and the "Cumberland" with 41 one bedroom units.

2.3.3 THE EXISTING LONG TERM CARE FACILITIES

In the West Point Grey area (with 2310 persons 65 years old and over) as well as in the adjacent areas of Kitsilano and Dunbar-Southlands, there are only nine long term care facilities, with a total of 384 beds. There are 56 beds at the E.C. level, 202 beds at I.C. and 126 beds at P.C. (Vancouver Health Department). Although the Provincial Ministry of Health's Continuing Care Program arranges for treatment and support services for individuals who can not function independently in homes among their families, due to health related problems, there is still a need for a long term care facility especially at the Intermediate Care Level.

2.3.4 A NEED FOR LONG TERM CARE FACILITIES

According to Vancouver Health Department data there are 13,169 clients in Vancouver receiving long term care services (see Fig. 2-5): however, there is still a significant number of clients (see Fig. 2-6) who are waitlisted for a long term care placement (Annual Report 1986). The growing population of this area may create a new problem with the supply of necessary health care services such as Intermediate Care, Extended Care, Clinic for the elderly, Respite Care, Day/Night Care or care for the seniors when their families are on vacations.

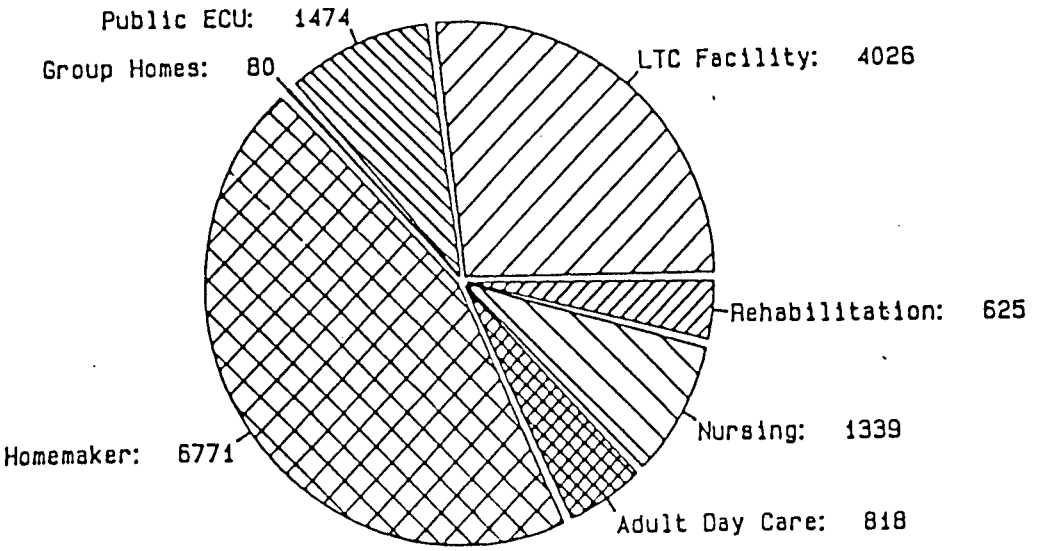


Fig. 2-5 Number of Clients Receiving Long Term Care Home Support or Facility Services by Level of Care (December 1986)

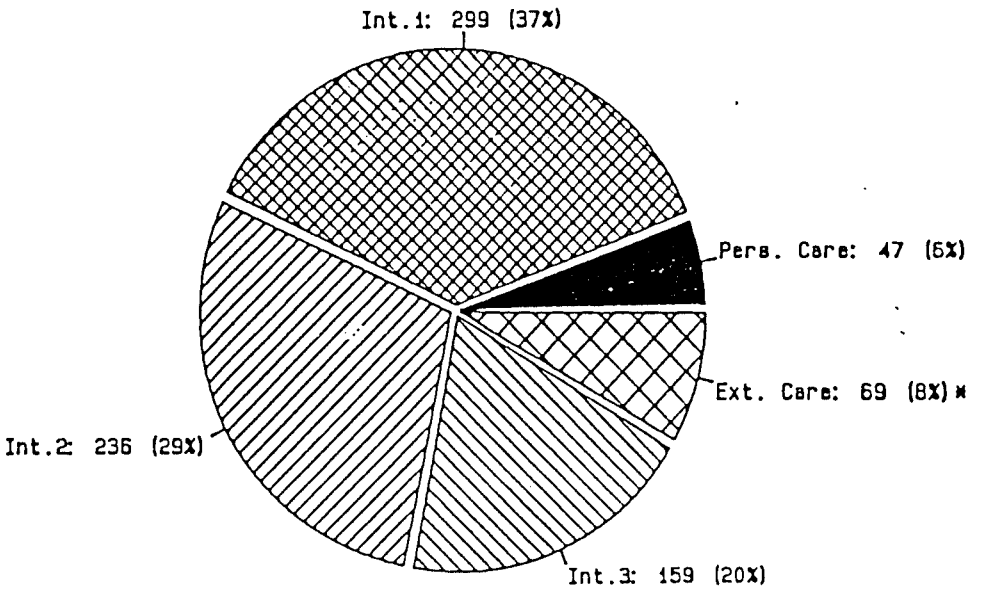


Fig. 2-6 Number of Clients Waitlisted for Long Term Care Placement by Level of Care (December, 1986)
Source: Vancouver Health Department, Continuing Care Division, Annual Report, 1986.

2.3.5 A NEED FOR SENIOR CENTRE

There is a need for a bigger activity centre for seniors in this area. The existing Brock House - Seniors Activity Centre on Jericho Beach although providing a variety of cultural, educational and social programs, is simply too small. Brock House is a heritage building, which belongs to the City of Vancouver and has been leased to the Brock House Society, a non-profit organization, which administers the Activity Centre for Senior Citizens. Situated on two and one half acres of waterfront property, 20 room Brock House is insufficient for 3000 members and can not accomodate all desired programs and activities. There are apparent needs for adequate room to accommodate Members for a wide range of activities: choir, orchestra, concerts, popular lectures, social events, dances, bridge tournaments, fitness classes, workshops and recreational activities.

In September 1988 a questionnaire on the Annex Concept was sent to all members. A total of 576 replies to the questionnaire supported the major addition project. The survey documented that there is a urgent need for a Senior Citizen Centre with a more comprehensive program and a wider range of amenities than are provided by Brock House at the present time.

2.3.6 POINT GREY: DESTINATION FOR THE ELDERLY

I have selected the Point Grey area as a background for my research thesis, because in general terms, it offers a unique environment:

Firstly: for the senior citizens living in Point Grey at the present moment and who want to stay there.

Secondly: for those living in adjacent Kitsilano, Dunbar and Kerrisdale areas, who want to move to familiar neighbourhood.

Thirdly: for those living in Metropolitan Vancouver and the Lower Mainland who would like to move there if possible.

and Finally: for all those seniors from all over Canada and U.S.A. who are planning to come here, because of these primary reasons: Natural Beauty of BC, its mild climate and excellent level of health care services.

The proposed Continuum of Care Complex in West Point Grey area could be one of the options for the basic three groups of elderly:

1. "empty nesters", the elderly and pre-elderly in single family houses -- these people sell an expensive house to get a smaller one, or a townhouse, for convenience and lower price. They may be last time buyers thinking about aging in that unit.
2. "renters", the elderly living in rented dwellings - usually the elderly with a low income, interested in affordable housing with high level of amenities and security.
3. "aloners", the elderly living alone without families - mostly women. Those people will look for security both in terms of physically secure environment and health care services, troublefree maintenance and companionship.

2.4 THE SITE OF THE CONTINUUM OF CARE COMPLEX AT 4TH AVE & HIGHBURY STREET

I have selected for my thesis the Federal National Defence Lands site for the proposed development, because there is an exellent access to services, activities, public transportation and the Univerisity of British Columbia. The site is located in the core of one of Vancouver's desirable residential areas. It is close to Jericho Beach and has neighbourhoods with well-loved atmosphere of stability and tradition. Although there has been considerable discussion on a need to preserve Vancouver's single family neighbourhoods, there is also a growing need for new forms of housing on the West Side of Vancouver. The subject site could make an excellent place for the CCC development. The location and variety of services provided by the Continuum of Care Complex and easy access to community resources could attract seniors not only from the West Point Grey area, but also from Vancouver, the Province of BC and all of Canada.

CHAPTER 3 - THE CCC FACILITY OBJECTIVES

Chapter Summary:

Chapter 3 concludes the thesis analysis cycle and develops the major objectives for the facility program. It consists of five sections, each dedicated to a separate important issue. These issues are: Living Environment, Residents, Management, Community and Neighbourhood Development.

INTRODUCTION

The Continuum of Care Complex consists of independent seniors' housing, residential health care facilities and senior community services. The complex will provide on site personal, social, and health care services to its residents.

Since the elderly represent a great diversity of physical and mental abilities, life-styles and preferences, designing for them requires special knowledge about the aging process and how this process affects their way of reading, interpreting or even imaginating their environment. In general, the aging process is associated with several changes. These changes may be understood as a slow process of losses such as children leaving home, death of spouse or friends, loss of income, loss of sensory acuity, deteriorating health and diminished independence. This process results in an increase in the elderly' level of dependence and a decrease of their level of competence. In "Environment and Aging" M. Powell Lawton discusses the issue of the interaction

between man and environment. He states that:

> The less competent the individual, the greater the impact of environmental factors on that individual (Lawton 1986, p.14).

A person with average competence can deal with physical settings through adaptive behavior. Although the aged for the most part of their lives are characterized by independence and competent behavior, they are vulnerable (especialy the "old-old" segment - 75 years of age and more) to health changes and social deprivations which may lead to reductions in competence. Lawton suggest that:

> ... if we could design housing with fewer barriers, neighborhoods with more enriching resources, or institutions with higher stimulating qualities, we could improve the level of functioning of many older people more than proportionately (Lawton 1986, p.15).

He later concludes that by recognizing the elderly persons unique needs we can create for them a more favorable environment and elevate their behavior.

3.1. LIVING ENVIRONMENT OBJECTIVES (L.E.O.)

In order to satisfy the elderly's unique needs a number of overall objectives have to be pointed out. These objectives recognize the special characteristics of the elderly which affect the design of the Continuum of Care Complex.

L.E.O. # 1 To create a quality environment which will:

1) <u>increase opportunities for individual choice in the CCC physical setting</u>;

<u>Rationale:</u> the individual's life style in older age is affected by a reduction of the number of options open to him. To respond to the preferences and abilities among the elderly variety and choice must be offered. "Where environmental choices are available, older people generally tend to choose those that match their ability level"(Carstens 1985).

The CCC environment should permit the widest range of personal choices by providing:

- a variety of living arrangements (one bedroom units, two bedroom units, townhouse, multiple dwelling units)
- a variety of amenities and services (a wide range of social, personal and health care services)
- a variety of outdoor areas (formal, informal, choices in scale and spaces)
- a variety of common spaces (social interaction vs intimacy)
- a variety of tenure

2) <u>minimize dependence and instead encourage personal independence in use of the CCC facility</u>;

<u>Rationale</u>: "The desire to be independent of others is particularly strong among the elderly. The ability to do for oneself carries a sense of pride and increases self-esteem" (Jordan 1978, p.47)

Physical support features (as well as management) in the

CCC should be unobtrusive in order to reduce feeling of dependency. For example, the design of the parking area (15% wider parking spaces or specially marked spaces for handicapped), walks, ramps, living units, all facilities in the Core Centre should permit use by the handicapped or less mobile elderly without the assistance of others.

3) reinforce the individuals' level of competency by providing environmental support;

Rationale: Environmental support within the CCC facility should help the less able to function at higher level of competence. In general, more space "around", whether it will be in the dwelling unit or in the common space will help older people to function at a higher level of competence. Some environmental supports may reinforce the individuals level of competency and improve quality of life. For example, wide stairways with gentle risers and frequent landings will be easier for older people to use, as well as, wider spacing of rows of auditorium seats, and providing easy use furniture.

4) compensate for sensory and perceptual changes;

Rationale: The aging process brings sensory changes. Sensory losses occur with vision, hearing, taste, touch and smell.

By adopting a "prosthetic approach" to design (Carstens 1985) such changes could be compensated for. A "prosthetic environment" offers appropriate levels of challenge or support.

It compensates for losses by, for example, use of the brighter colors and those in the orange-yellow-red spectrum (easier to distinguish), using lower-pitched sounds (which are more easily heard), providing tactile cues that may be more easily perceive (walking surface).

5) <u>improve comprehension and orientation in the new environment</u>;

<u>Rationale</u>: "Changes in mental functioning brought about by age can result in behavior that includes memory loss, forgetfulness, disorientation and incoherence"(Jordan 1978, p.49)

To promote wayfinding and orientation the circulation pattern of the whole CCC facility should be simple and easily accessible. For example, signs should be large enough to be read and located at a height convenient for people with visual limitation; the building plans and outdoor areas should promote wayfinding through visual clues which emphasize the character of any particular area.

6) <u>encourage social interaction between residents (and visitors)</u>;

<u>Rationale</u>: With age an older person's social contacts are often reduced by: loss of health, death of spouse or friends and children moving away. Older people look for opportunities to establish new acquaintances or friendship (Jordan 1978, p.50)

A specially designed environment which promotes and encour

ages the elderly in social interaction can help to establish new friends and acquaintances. For example, the amenity spaces such as lounges, dining facilities, waiting areas should provide an intimate atmosphere which promotes private conversation; game rooms, arts and crafts, swimming pool and other components should increase opportunities for social interaction; outdoor recreational facilities may attract younger persons and promote a mix of age cohorts.

7) stimulate participation in activities;

Rationale: With age can come a reduction in one's self- confidence (Lawton 1986).

In order to encourage participation in activities some design features should be implemented. For example, the group activities in the amenity areas such as arts and crafts should be visible for passing-by observers by providing open studios (rather than closed-off rooms), lounges should be adjacent to "where the action is", outdoor activity areas should be surrounded by a seating area for watching.

8) provide opportunities for individual privacy in contact with others;

Rationale: With age many people want more intimate contact with one or two others (Jordan 1978).

Common spaces: providing quiet corners (alcoves) in lounges or by furniture arrangement (two-person table in dining room)

for example, may improve privacy or encourage more intimate conversation. Outdoor spaces: should include secluded seating areas and retreats. The dwelling unit: should provide a space arrangement which may create one's own territory. This issue is discussed in greater detail in Chapter 6.

9) improve the public image of the elderly.

Rationale: Negative, obsolete stereotypes about the elderly are associated with disability and sickness.

The facility should be designed to improve the public's attitudes and opinions about the elderly by creating an environment in which the elderly could function effectively as a part of the community but not as an isolated institution for disabled or sick people.

L.E.O. # 2 To provide the safety and security.

Rationale: Older people are especially sensitive to the need of secure environment because of reduced levels of physical and mental competence (Lawton 1986). Fear of crime, stolen property and concern about falling or being attacked and not being seen or aided are high among older people. They are more vulnerable to long-term disabilities caused by a fall or an attack.

1. The facility should be located in an area where people are reasonably safe from robbery, muggings or personal harassment.
2. The facility should provide services, which may improve

feelings of safety for example: home support services, security personnel.

3. Outdoor areas and main pedestrian walkways should be located to allow for visual surveillance by residents and staff.
4. Outdoor common areas used by residents should be enclosed within clusters.
5. A clear transition from neighbourhood public space to private space should be implemented by providing transitional zones: public, semipublic (the CCC community), semiprivate (cluster space), private (patio).
6. The site planning should clearly define edge conditions such as fencing and gates, which may foster a sense of security.
7. The facility should provide physical safety features. All facility entrances and exits should be visually supervised by staff (closed-circuit video/tv system). Public areas should be protected by an emergency lighting system in case of power failure. Hazards to personal safety should be minimized by providing safety features such as: hand-rails in corridors, non-slip floors, grab bars in washrooms and bathrooms, emergency call boxes and telephones throughout the buildings and in the outdoor common areas.

L.E.O. # 3 To provide a variety of Environments.

1. To provide a specific combination of environments for the elderly which will include:

a. a "home-like" environment in the dwelling clusters at all levels of care.

b. a "social community" environment in the amenity areas and outdoor activity centre.

c. environments which will be aesthetically appealing to the residents, their families and friends, the staff and the community at large.

Rationale: The Continuum of Care Complex will be the new place to live in but by providing a residential character it might help the residents to retain their self-identities and life-styles.

2. To diminish "old-folks home" stereotype.

Rationale: Long term care facilities are usually associated with the stereotype of institutional character which consequently creates negative public opinion. Older people don't like to move in because of fear of becoming a "patient"; the neighbourhood does not like to have such a facility near by because of its negative image.

"Regrettably, the public image of aging in our society ascribes disability and sickness to the majority of older people"(Lawton 1986, p.105). Gerontologists are unanimous in feeling that the institution is the least desirable place for older people and they encourage any attempt to design services and environments which can prolong residence in the community.

3. To create an opportunity for a "new start".

Rationale: The facility might also provide opportunities for the residents to make life more enjoyable by establishing a new

pattern of social life. The CCC, in principle, will also be a part of the neighbourhood by providing a great number of services and programs for residents and the entire community. The proposed Core Centre, the innovative program component, should become an active "social community" which encourages interaction not only among facility residents but also with friends, relatives and aquaintances from the neighbourhood.

A variety of facilties open to the public such as a swimming pool, library, auditorium, art and crafts, etc. should bring people together. Moreover, the Core Centre should provide mental and social stimulation. The elderly should be encouraged to contribute or participate in the running of the Centre. They can staff the reception desk, organize cultural events, run the library, take care of the garden etc. They can join forces to raise funds for a special project and interact with community residents. They can have the opportunity to earn extra income by serving for example as instrument and languages teachers, preparing income tax etc. They can be very creative in Arts and Crafts and the Core Centre may become a very important part of their lives.

3.2. RESIDENTS' OBJECTIVES (R.O.)

The most important objectives for residents choosing to live in the CCC have been agglomerated into three basic groups of needs: residential, health care and social needs.

R.O. # 1 RESIDENTIAL TENURE CHOICE

To provide rented accommodation for those who are unable to purchase their dwelling units. To provide alternative housing for those who wish to relinquish the responsibility of ownership.

Rationale:

Although the income of elderly Canadians has increased substantially over the last few years there is still an income gap between the elderly and the rest of the population. The financial position of elderly men has improved more than that of elderly women (National Council of Welfare,1984). According to Statistics Canada, 1984 the elderly are heavily dependent on public pension and income security plans. In 1985, 10% of families in which the head of the household was 65 years or over were below the poverty line. Correspondingly, 46.8% of unattached individuals 65 years of age or over were also below the poverty line.

In the West Point Grey area, the average household income is $35,000; however, 39.6% of all households income is only $20,000. The worst situation is in adjacent Kitsilano where a household income of $20,000 represents 54% of all households (City Hall data,1986). Although the financial position of elderly people has improved and the trend toward financial security will continue (National Council of Welfare,1984) attention must be paid to those people who did not make pension contributions or save during their younger years. For example, many women find themselves in this situation. According to a survey of B.C.

Housing Management Commission aplicants, the typical senior seeking assistance was female (70%), aged 65-74 (59%), living in apartment (87%) and spending 48% of her income on renting shelter.

On the other hand, for more affluent senior homeowners, the availability of alternative housing which will respond to their specific needs could convince them to sell their homes. According to an SFU study of seniors aged 51-64, 65-74, and 75+ conducted by Gutman (1988), entitled "Seniors Reaction to New Vista's Community Concept", the proportion of homeowners who had thought seriously about selling their home increased with increasing age. Their major reasons for doing so were physical difficulty maintaining their home or garden and the illness of themselves or their spouse.

"When asked why they did not sell, a third of respondents said it was because they did not want to change their lifestyle, 14.8% said it was because they could not find a better alternative while 11.1% reported they were still considering selling" (Gutman,1988 p.20). When homeowners were asked whether, if they were to sell their home, they would be more likely to buy or rent their next accommodation, those in the youngest group (51-64) were about equally split between renting and buying another home. The proportion who would buy decreased with increasing age. Renting was clearly the preference of those in the oldest (75+) group. Respondents were attracted to the New Vista site because New Vista was well located, there

would be access to the care centre if long-term care was needed and there would be medical personnel nearby in the event of an emergency (Gutman 1988, p.28).

The oldest group of respondents were convinced that people who could afford to pay market rent would move to a site where the other buildings housed mainly low income people - as long as those low income people were seniors.

Based on these data, we can assume that there is the possibility of coexistance of residents with low income and the better off elderly people. Therefore, affordable housing for the elderly with low income and alternative housing for those who wish to sell their home will be an important objective in creation of a Continuum of Care Complex in West Point Grey area. This could be achieved by:

1. Providing housing through BCHMC programs where housing charges do not exceed 30% of the resident's income. According to the City Hall Planning Department (1986) the number of people requiring assisted housing was 2,558.
2. Providing Co-operative Housing based on the CMHC assistance program or affordable seniors' housing without government assistance. For example, Avondale Cooperative Housing for Seniors in North-Surrey has won the CMHC award in the financing and tenure category. Members bought shares in the co-op and organized rights as shareholders in a corporation. By paying off the mortgage they increase their shareholding until they have invested the full value of the unit. Then

they just pay monthly maintenance fees. Since the value of a share does not increase over time, the price of a unit will remain the same. Members who move out receive the amount they have invested without making a profit (Rebalski 1988). Because the share price will remain low and, in fact, decrease in proportion to the rising cost of other housing, the co-op will have an ever broadening market of people who can afford shares.

3. Provide strata title condominiums for those who can invest a portion of equity recovered from selling their present home and who wish to have a higher standard of housing than may be provided by other forms of housing. For example, more living space, more amenities, better finish materials.

R.O. # 2 HEALTH CARE NEEDS

To provide health care services for all residents of the CCC facility. To provide health care services for the elderly residents and in the entire neighbourhood.

Rationale:

Health matters are of distinct importance when considering the needs of the elderly. Illness and loneliness become realistic fears for older people. Given that two-thirds of disabled people are also elderly people, the importance of health and social services provision is self-evident. The elderly use more medical services than any other adult age group, the old elderly use more than young elderly and women use more than men (Gutman 1982). Increasing age among the elderly is associated with a

decrease in health in the form of chronic illness, physical health dysfunction and dependency on others.

As the level of dependency of an individual increases, so too does the level of services required to keep that person at home. If more elderly are to remain at home (GVRHD Report 1987), formal services must be provided. At some point the cost of formal services in the home will become higher than the cost of care in an institution. With increases in the proportion of the elderly in the higher age groups, especially 85 years of age and over (Statistics Canada 1980), home care may no longer be a cost-saving measure. Moreover, there will always be some elderly for whom there is no alternative to institutionalization. In other words it is not a question of failing to support deinstitutionalization but rather of providing the best possible health care to the elderly in the most appropriate setting at a cost that society can afford (Canadian Medical Association 1987). Therefore, a facility which will have health care services at hand would be in great demand by aged people. According to research (Gutman 1988) on reactions of current homeowners to the possiblity of providing market rental units at the New Vista Site, the data clearly show that having health care services on the site would increase New Vista's attractivness, especially for those in the oldest (75+) group. Two-thirds of the two younger groups of respondents and four-fifths of the oldest group felt the services would be used by those in the surrounding area if they were of good quality, did not duplicate

services close by, if they were handy and/or if their cost was reasonable.

The respondents were also enthusiastic about New Vista providing such traditional, long-term support services as meals-on-wheels, an adult day care centre, respite or night care. Approximately half (48.1%) of the respondents supported the idea in principle. An additional 14.8% pointed out that such services would extend independence, reduce worries and/or help care-givers (Gutman 1988).

Resident's health care needs may be satisfied by:

1. the Continuum of Care Complex providing a choice of living accommodations suitable for persons at varying levels of dependence and a range of care services from which they can select to meet their complex needs. In order to satisfy heavier health care needs, the CCC should provide an Intermediate Care Facility (three levels) and an Extended Care Facility.
2. The CCC facility should provide a Health Care Clinic with doctors and dentist offices, a Rehabilitation Centre and a Pharmacy, which will serve the residents as well as elderly people of the whole neighbourhood.
3. The CCC should provide Adult Day/Night Care, Respite Care and Holiday Vacation Care beds providing relief for relatives caring for the elderly at home.

R.O. # 3 SOCIAL NEEDS

The CCC facility should provide a supportive social living environment.

Rationale:

In the future, there will be fewer family members available to provide care to the elderly due to the increasing number of small families without any children and due to rising divorce rates. High mobility which often requires adult children to live at some distance from their aging parents will also have an impact on the social support required to be provided to older people. Increased female participation in the workforce will limit the ability of adult daughters (traditional care-givers) to care for their aging parents. Therefore, other alternative lifestyles which will provide different types of social support will be sought after. Moreover, the elderly and particularly elderly women are precisely the persons who can become isolated in a society which is centered around the nuclear family of mother, father and children. In the Point Grey area, elderly women significantly outnumber elderly men. Therefore, they may be potential applicants for admission to the CCC, looking for a supportive living environment with peers.

The CCC facility should create a strong community feeling in order to satisfy residents' social needs. For older people feeling that they belong to a community, which they are proud of, is important for self-esteem and satisfaction. In a society where status and role are defined in work situations, the elderly are

deprived of such distinct identification (Champagne and Brink, 1985). There will be two ways to achieve this objective:

1. By establishing policies that residents play a critical role in the CCC facility ownership, management and development process. For example, residents will be members of one of three (co-op, strata-title, BCHMC subsidized housing) housing societies responsible for the management and operation of their units. All "community" facilities (the Core Centre) will be shared and managed by the Boards of Directors of all three societies in cooperation with a professional Property Management organization. Development of the new CCC facility would be the Boards' major responsibility.
2. By introducing social services and by designing a physical environment which will facilitate social interaction. The CCC Program calls for several social services, which will provide programs of creative (Arts and Craft) and recreational activities (sports, games) as well as introduce Educational and Cultural programs that will be held in a 200-seat Auditiorium for both residents and non-residents. The housing cluster arrangement will create opportunities for chance meetings so that residents of the same housing cluster will at least recognize each other.

3.3. FACILITY MANAGEMENT OBJECTIVES (F.M.O.)

The Management objectives are somewhat similar to design objectives: both the Management policies and the physical envi

ronment may equally produce institutionalization. The impact of institutionalization is apathy, withdrawal and disengagement. This obviously is not the quality of life which should be offered to elderly people. The CCC facility should be dedicated to the provision of a home-like environment emphasizing quality of life and encouraging growth of each individual member of its community. The residents should be esteemed and entitled to the best of restorative and supportive care: emotional, intellectual, spiritual, physical and social. Rules and regulations which impose barriers that segregate those in each level of care should be avoided where possible, to allow development of a sense of community.

F.M.O. # 1 Management of the CCC should allow residents (and visitors) to perform tasks for themselves and reinforce a sense of autonomy and usefulness.

Rationale: Some autonomy is sacrificed in housing projects by providing group services and facilities. Mostly it is caused by economic factors. In addition, retirement often brings the loss of important roles in society and a sense of uselessness (Carstens 1985). Management policies should respond to the elderly's needs and allow residents to reinforce their sense of autonomy and usefulness by providing:

1. easy access to all CCC facilities and services.
2. comfort and ease of use (the Core Centre, outdoor space).
3. opportunities for participation in activities, activity

organizing and service delivery (seniors' centre).

4. opportunities to participate in outdoor maintenance (gardening committee).

F.M.O. # 2 Management policies should encourage independence and use of the CCC facilities.

Rationale: Management policies on use of facilities and activity programming are critical for encouraging independence and the optimal functioning of the individual (Carstens 1985). Elderly people are more likely than younger people to adjust to existing rules and conditions although these may not accommodate their needs and may discourage use and satisfaction with the surrounding environment. Management should:

1. Create a forum for solving problems and discussing issues related to the growth and development of the CCC in promoting individual and group needs, abilities and aspirations such as a resident design board which can evaluate, review and propose changes or additions to the CCC facilities.
2. Identify common problems, service gaps and areas for program and service expansion eg: a resident program board to organize special events which may increase use of facilities in the Core Centre and outdoor spaces.
3. Advise on learning experiences, opportunities for growth and promotion of freedom of choice to help older people, especially disabled, to be more self-sufficient and independent, eg: resident education board and programs.

F.M.O. # 3 Objective: Management policy should encourage residents to personalize, change and control the CCC environment.

Rationale: "Personalization and control over the environment is important for self-esteem and satisfaction, particularly for aging persons who experience a closing off of life's options. Being able to change and personalize the environment allows individual needs and preferences to be satisfied. A sense of control also increases the feeling of home and the use of a space while decreasing the institutional character of planned housing" (Carstens 1985, p.16). Mangement policies should:

1. encourage residents to personalize their own dwelling units especially in the long term care clusters by providing opportunities for display of their personal belongings and furniture.
2. accentuate unit entry with flowers or other personal items.
3. provide residents with their own amenities to take care of: like aquariums, birds feeders.
4. facilitate control over placement within the CCC environment by providing, for example, movable furniture.

F.M.O. # 4 Management should make the place appealing in terms of a relaxed atmosphere and friendly yet unobstructed services as well as "friendly, physical environment".

Rationale: The elderly are more vulnerable because of day to day

difficulties. Contact with a new staff or other residents may cause anxiety and reduce confidence. The older people require time to evaluate and prepare for changes in the environment. Through a relaxed, positive atmosphere and cheerful ambience management may elevate residents mood and satisfaction. For example: all lounges/dining rooms should be equipped with home like accessories: bright coloured tablecloth, fresh flowers on each table, comfortable furniture.

F.M.O. # 5 Management should centralize all supportive services, but retain home-like environment within residential cluster.

Rationale: Centralization of a number of facilities may considerably reduce the number of staff that is required to perform those services, which consequently may reduce operating costs of the CCC facility. In addition to that, centralized comprehensive services in the facility will allow for ease of access for residents and staff. The management of the whole facility may be more effective and easier too.

The CCC should centralize a number of services in the Core Centre such as:

1) central administration
2) central food services
3) central laundry
4) central material services
5) central building services

6) central plant services

7) central personnel services

8) central social services

9) central health care services.

3.4. COMMUNITY OBJECTIVES (C.O.)

> The neighbourhood environment may be the source of aesthetic enjoyment, physical security, sensory variety, basic resources, help in emergencies, social interaction, interesting things to do, the feeling of territorial pride, and many other satisfiers of human needs (Lawton 1987, p.38).

To provide the elderly with all these attributes of an "ideal environment", it is necessary to sense the general community objectives. These objectives (subject to the Planning Department and Point Grey neighbourhood groups approval) have similar background to the previous two groups of objectives: to create a special Continuum of Care neighbourhood for the elderly within the larger context of the Community Development Plan. The "mini" CCC community should attempt to recognize both unique needs for special services it may offer to elderly people living outside the CCC, the advantages of living close to age peers, and simultaneusly the need to retain some unity with the people and the resources of the Point Grey Community.

C.O. # 1 To provide the CCC facility in the Point Grey Area in order to prevent local elderly people from enduring relocation stress.

Rationale: Although it is generally assumed that retirement constitutes an occasion for many people to move, the very low mobility rate of the elderly attests to the fact that relatively few make this type of change. Elderly people need to continue to live in the same community and to retain the ties of their previous existence. The move to an institution is traumatic enough. A number of studies on involuntary relocation have documented negative consequences and for older people, particularly, increase in mortality and morbidity rates (Gutman 1983; Lawton 1986). In order to retain the elderly within the same community the usability of its resources is of major concern for planners and for those responsible for delivering services. To achieve this task it is necessary:

1. To locate elderly people near desirable resources. The new CCC housing should be located near existing shopping malls, bus stops, banks, parks.
2. To locate desirable resources near existing concentration of older people. The CCC long-term facilities, Adult Day/Night Care, Senior Center, Recreational Activity Club, Clinic should be located in close proximity to the existing elderly habitation areas.
3. To mobilize existing resources to tailor programs to the elderly. For example, local merchants' instituting discounts for seniors - Senior's Day in bank, drugmart, restaurants or establishing a new program for seniors in the community centre.

4. To mobilize informal resources of the neighbourhood which can provide support for the elderly who have greater limitations. For example, a volunteer network providing such services as friendly visitors, security call system and pet therapy.

C.O. # 2 Provide easy access to neighbourhood resources.

Rationale: Access to neighbourhood resources is important for general life satisfaction, morale and the optimal functioning of the individual, as well as for avoiding isolation from the rest of the community.

According to Lawton (1986), proximity to the neighbourhood resources and knowledge of the neighbourhood are two determinants which are related to well-being of the elderly. Several studies on the effect of resources proximity to elderly housing have proved that there are "critical distances" beyond which elderly people decline to use facilities. For example, a laundromat or seniors centre needed to be on the housing site to be used maximally, a post office or bus stop within three blocks, a grocery store, bank or physician within ten blocks. However, other studies have found that the amount of use of resources is not only associated with distance to the resources but also with satisfaction with distance and perceived convenience (Lawton, 1986). Since walking increasingly becomes a major mode of transportation for older people the new CCC facility should be located:

1. Close to the neighbourhood's resources such as retail outlets, necessary services (banks, layer, eating out).
2. Close to convenient public transporation stops and safe and convenient walking routes.
3. Located in an attractive place within the community, focused on natural beauty and views.
4. Within close or with convenient access to educational centres (e.g. UBC).

C.O. # 3 The CCC facility should provide life sustaining resources for its residents and for the elderly living in the neighbourhood.

Rationale: Gutman's (1988) study of Seniors' Reactions to New Vista's Community Concept found that more than two-thirds in the two younger groups and more than 90% in the oldest group expressed enthusiasm for the idea of health care services (e.g.: doctors' and dentists' offices, physiotherapist, podiatrist, diagnostic lab) on the New Vista site. Respondents, especially in the oldest group, were very enthusiastic about the idea of New Vista providing such traditional long-term care support services as meal-on-wheels, adult day care, respite or night care. These objectives have been discussed in R.O. # 2.

C.O. # 4 The CCC facility should create an informal community network of friends and relatives.

Rationale: In the community, residents mingle with people of all

age groups. Their friendship networks include friends, relatives and acquaintances from a wide variety contexts. In a facility, the elderly are faced with a homogenous community. Resources and programs should encourage participation of the CCC residents and also visitors from various social groups. According to Gutman's research on New Vista (1988) the most preferable resources associated with a seniors' housing complex for the youngest group of the elderly respondents was the availability of recreational and social programs. The oldest group was most attracted by the opportunity for the companionship of age peers in such complexes. The CCC facility should:

1. Provide recreational facilities such as:
   - an outdoor activity club with bowling, mini-golf, croquet, BBQ
   - gardening club which will provide the opportunity not only for social integration, but also for horticulture therapy.
   - indoor activities and programs such as a swimming pool, fitness centre, dancing club, auditorium with multipurpose use.
2. Provide social programs, which encourage participation of the residents and visitors such as:
   - bingo, bridge
   - drama club, sing along, arts and crafts
   - toastmaster club, travel club
   - picnic lunches, tea and talk, shopping trips

3. Provide facilities which will provide the opportunity for social contacts:
   - restaurant
   - cafe/bar
   - winter garden with arts exhibition
   - beauty salon and hairdresser
   - bank, small retail outlet

C.O. # 5 The CCC facility should provide life enriching resources which will promote mental and social integration.

Rationale: Life enriching resources contribute very much to well being of the elderly (Lawton 1986). As a part of a comprehensive community strategy to meet the needs of older people, the CCC facility through a variety of services and activities in such areas as education, creative arts or leadership development may support their independence, enhance dignity and encourage their involvements in life of the CCC community and the whole neighbourhood. With the growing population of more educated elderly who are seeking life satisfaction in more sophisticated ways, emphasis should be put on creative activities, special classes along with other forms of active recreation. The CCC facility should:

1. Provide a small library with reading and listening rooms (music, languages).
2. An Auditiorium and classes for special educational program

such as guest lecturers from U.B.C., or S.F.U., travel experiences and others.

3. Arts and Crafts programs because these provide so well for the expressive needs of the elderly.
4. Excursions to U.B.C. or S.F.U or downtown for special lecture or cultural events .

C.O. # 6 The CCC facility should enhance business integration with the Point Grey Community.

Rationale: The CCC environment, which tries to meet a variety of elderly people needs, can be very expensive and does not provide a return on the original investment. The community can share the benefit if the facility is open to the public. The CCC facility should:

1. Provide facilities such as day care, rehabilitation centre, clinic, stores, restaurant, cafe/bar, hairdresser, pharmacy, auditorium, library to be shared by the community at large.
2. Provide membership cards for special recreational activities and social programs such as: bowling club, croquet club, swimming club, dancing club, gardening club and others.

3.5. NEIGHBOURHOOD DEVELOPMENT OBJECTIVES (N.D.O.)

For the Selected Test Site (Please refer to Chapter 2 p.2.4.)

N.D.O. # 1 The design and planning of the CCC facility has to

ensure that a new facility maintains livability, privacy and a sense of community:

Rationale: The new CCC facility has to be a part of the existing Point Grey Community in terms of building physical characteristics as well as social infrastructure. Residents should be encouraged to go out into the community but at the same time the elderly living in the Point Grey area should be encouraged to participate in the CCC activities. The residential portion of the facility should provide buildings in clusters in order to create a mini community providing privacy and livability to each resident. However, this small CCC community should blend with the Point Grey neighbourhood.

N.D.O. # 2 The CCC development should create a cohesive neighbourhood character and achieve visual compatibility with the surrounding housing.

Rationale: The existing apartment buildings along 4th Ave and Highbury Street are 3 storey buildings which have no special architectural merit. Along 8th Avenue there are single storey old houses built as single-family homes. In terms of overall massing a new development should provide a variety of space options from single family housing to the multiple-unit housing.

N.D.O. # 3 The CCC development should contribute to streetscape having its distinctive character and visual interest.

Rationale: The character of streets contributes significantly to a neighbourhood's image. It is traditionally created by the landscaping treatment of the front yard of individual sites and the rhythm of buildings and side yards. A variety of building styles around the subject site can coexist because the streetscape ties them together.

On 4th Avenue, close to Alma Street, a more urban character is evident which is created by the proximity of commercial buildings: new Jericho Mall and shopping and services area. On 8th Avenue and Highbury Street the existing buildings create a rhythm of the predominant residential neighbourhood. Along the north side of 4th Avenue, mulitiple-unit housing with minimal front yard setbacks create a more urban street character.

A streetscape with distinctive character and visual interest should be achieved by:

1. Ensuring that the CCC provides building treatment that complements developments on adjacent sites and creates visual rhythm.
2. Maintaining a more urban streetscape in the north east part of the site.

N.D.O. # 4 The CCC development especially the residential part should not block or reduce the existing views.

Rationale: The major public view corridor exists along Highbury Street, looking north. A private view is available in the

southern part of the site and in the northwest part of the site where there is a view of the mountains and Jericho Park to the north.

N.D.O. # 5 The CCC development should be designed to minimize the potential noise impact from 4th Avenue.

Rationale: The City Hall data indicate that the vehicular traffic has a great impact on the quality of life in the development along 4th Avenue. In order to release the heavy traffic on 4th Avenue and provide easy access to the site the City recommended an access to the CCC site from Highbury Street through Sixth Avenue.

N.D.O. # 6 Individual dwelling units should enjoy a high degree of privacy.

Rationale: In elderly housing privacy is highly valued. It is important that the CCC provides privacy for its residents and does not erode the present levels of privacy enjoyed by adjacent properties especially in the southern part of the site.

This should be achieved by:

1. Orienting major windows away from the windows of adjacent units when distance between them is less than 15 metres.
2. Orienting balconies away from adjacent sites (units), or screening them to minimize overlook.
3. Providing screening for ground level units near a street or access route. This screening should be obtained primarily

through landscaping with fencing providing a secondary screen.

N.D.O. # 7 The design should accommodate defensible space methods to ensure a safe and secure environment.

Rationale: Security and crime prevention is an issue in elderly housing. Through site planning and building design, an environment that discourages crime can be created. This should be achieved by:

1. Locating indoor common areas adjacent to outdoor common spaces to improve mutual security.
2. Grouping dwelling units in clusters to enhance entrances surveillance of comings and goings.
3. Designing fences and landscaping that allow same views of the clusters (buildings) and private open spaces from the street.

N.D.O. # 8 The CCC development should provide a variety of open spaces which will serve the public, residents and the neighbourhood as a whole. The treatment of open space should contribute to the neighbourhood identity.

Rationale: The subject site is a "green oasis" in the Point Grey area and can be easily transformed into medium density development with sufficient provision of open spaces. The northern portion of the site is already an open public grass-covered area

with trees that create an attractive streetscape and contribute to neighbourhood identity. A pleasant, easily accessible outdoor area is an essential part of a residential environment for the elderly who are likely to spend more time in or near their homes than younger people. The outdoor area should permit residents to walk about easily and conveniently and should provide several kinds of space created for different activities.

N.D.O. # 9 The CCC development should provide landscaping that creates visual interest and identity.

Rationale: There is a substantial quantity of deciduous trees located in the western part of site which provide a natural buffer zone from the adjacent Jericho Hill School property and Justice Institute. Along 4th Avenue, there is a green zone with deciduous trees that provides a barrier from the noisy 4th Avenue. Close to the intersection of 4th Ave., and Highbury Street there is a beautiful alley with many feature trees that cross the site diagonally on the east-west axis. This alley is a very important feature of the site that should be preserved in the future development. Throughout the whole site, there are scattered coniferous and deciduous trees and rows of trees along existing transportation routes. Along 8th Avenue, there is a high shrub hedge and a row of deciduous trees.

3.6. CONCLUSION

The facility objectives developed in this chapter have been

established in order to guide the program development in the following Chapters 4 and 5. All these objectives are instrumental in terms of successful operation and management of the CCC facility. In summary, there are five groups of objectives:

Group 1 Living Environmental Objectives which address the issue of a safe and quality facility environment.

Group 2 Residents' Objectives which concentrate on three basic issues: tenure choice, health care and social needs.

Group 3 Facility Management Objectives which although emphasizing the importance of centralization of supportive services, nevertheless stress also the need for independence, personalization and varied physical environment.

Group 4 Community Objectives explain a need for successful and smooth relationship between the CCC facility and the Point Grey Community.

Group 5 Neighbourhood Development Objectives are very important for the architectural concept of the CCC facility and have been presented in the form of design guidelines.

CHAPTER 4 - THE CCC FACILITY COMPONENTS

Chapter Summary:

Chapter 4 is the part of thesis synthesis and concentrates on four major functional components of the continuum of care complex: residential, long-term care, community services and outdoor activity spaces. These components constitute the entire spectrum of the CC environment and are instrumental to its quality.

INTRODUCTION

A quality environment, which may contribute to the elderlys satisfaction and well-being is the major factor in designing a Continuum of Care Complex. As pointed out in Chapter 3, there are several physical and social criteria, which may be used in evaluation of the environmental quality. The opportunities for individual choice, an encouragement of social interaction between residents, stimulation and participation in activities as well as reinforcement of individual independence are just the basic objectives in fulfilling the CCC residents satisfaction.

The opportunity for individual choice would be satisfied generally by providing a variety of Environments which would permit the widest range of personal choices. The most important choice would be a choice in a variety of living arrangements. The CCC Facility will provide three tenure options. Each option would provide further choices in terms of the type and size of dwelling units.

For those senior residents who need health care services the Continuum of Care Complex will provide a choice in a range of living accommodations according to levels of dependence and a range of care services in the Intermediate Care (three levels) and Extended Care Facilities.

The Core Centre would be a key component in the creation of the CCC quality environment. The life enriching resources would promote mental and social intergration in the Core Centre - cultural component. The life sustaining resources in the Health Centre would satisfy residents and the elderly living in the neighbourhood. However, the Core Centre would also promote the opportunity for social contacts and would enhance business integration with the Point Grey Community. Several services, programs and amenities would increase opportunities for individual choice.

The outdoor space program components would be the principal elements in the CCC environment. Besides having therapeutic alue the outdoor spaces would create a variety of outdoor activities. This component would also promote participation in all its activities as well as encourage social contacts between residents and visitors.

4.0 SIZE OF THE FACILITY

Is there an ideal number of elderly people, that can be maintained in one Continuum of Care Complex? In the United States continuing care retirement communities house an average of

350-500 residents, a population range that has proven economically viable (Green, 1985, p.39). Another study suggests that:

> Although there is divided opinion as to the number of elderly who may be concentrated in their own neighbourhood, up to 500 housing units divided into clusters of 30 to 50 is a scale to which most residents can comfortably relate. With less than two persons per household, the neighbourhood will house a population under 1000 (Zelver 1976, p. 200).

The size of the CCC facility should be such that it does not create an isolated community of the elderly, but large enough to provide an economic viability in terms of buildings and services. However, the problem remains beyond the question of a number of seniors in a given space. A quality environment, which contributes in the first place to the elderly's satisfaction and their well-being would be another important factor in designing a Continuum of Care Complex.

4.1 HOUSING - INDEPENDENT LIVING

The objective for choice of residential tenure in Independent Living Housing could be fulfilled by providing three tenure options. The first one would be rental accommodation for the elderly who are unable to own their dwelling units. This type of housing would be available to low income seniors living in rental apartments in the West Point Grey area as well as in Kitsilano, Dunbar and Kerrisdale. However, the program also assumes other choices: Cooperative Housing townhouses (assisted by funds from CMHC) for those with moderate income, but active and willing to participate in the cooperative management; and

also Strata-Title dwelling units developed by the private sector. The last option could be offered to more affluent residents of West Point Grey, adjacent Dunbar and Kerrisdale as well as to those from Metropolitan Vancouver and Canada (see Chapter 2).

There are advantages and disadvantages of each housing option. (Housing Information For Those Approaching Retirement, Centre for Continuing Eduction, U.B.C. 1986; Home Selection Guide, NHA 5179 CMHC, 1983) Each housing type satisfies different needs of the elderly:

Tabel 4-1.--Housing Choices in the CCC Facility

BCHMC	CO-OPERATIVE HOUSING	STRATA-TITLE DW. UNITS
	ADVANTAGES	
Low and moderate income - rents are 30% of gross household income.	Security of tenure.	Security of the ownership.
Opportunity to change accomodation.	Housing charges are kept at reasonable level.	Opportunity to participate in the management of the condominium.
Little or no responsibility for the maintenance.	Live and socialize in a community type setting.	More living space services and facilities, better finish materials.
No down-payment required.	Occupants collectively own and manage the housing.	Opportunity to recover the invested money.

Table 4-1.--Housing Choices in the CCC Facility (Cont'd)

BCHMC	CO-OPERATIVE HOUSING	STRATA-TITLE DW. UNITS
	ADVANTAGES	
More freedom to be away.	Household/occupants purchase share -- money refunded when the occupant moves out.	Independence and freedom to pursue individual livestyle.
Convenience of having friends in the same building		Value has increased over past several years.
	DISADVANTAGES	
Long waiting list.	Members must comply with the regulations established by the cooperative as a group.	Necessity to comply with condominium regulations.
No opportunity to turn part of your expenses into investment.	Obligations to participate in cooperative administration.	Maintenance and improvements outside the housing unit are subject to decisions by the board of directors.
No security of the ownership.	No opportunity to build up investment in value of property.	Costs: higher than co-ops.
5% wheelchair accessible units only.	Higher monthly mortgage payments than for rental housing	Long-term financial commitment.
Less living space amenities than in co-op and strata-title.	Long-term financial commitment or large downpayment.	Relatively less freedom to move than with rental housing
	Necessity to buy shares.	

4.1.1 BCHMC HOUSING - NON-PROFIT RENTAL HOUSING

To satisfy the needs of the first group of potential residents the CCC facility could provide independent living units within the Non-profit Housing Program of the BCHMC. The objective of that program is the development of modest housing projects for needy people built in accordance with BCHMC specifications, all applicable building codes, municipal by-laws and regulations. At present the program covers both senior citizens and family housing projects, including associated units for the disabled. The subsidy available under the program is designed to cover the difference between the break-even rent for the project and the tenant rent contribution based on 30% of household income. After completion of construction, the subsidy is paid directly to a sponsoring housing society by the B.C. Housing Management Commission on behalf of the Federal and Provincial governments. According to the development criteria the sponsor of such a project must be a non-profit housing society, which plans to develop a social housing project and make a long term commitment to the efficient management of the facility.

BCHMC's data (on July 21th, 1989) indicate that there is a great demand for subsidized housing. In Vancouver, there are 1040 persons 55 years old and over on the waiting list (226 persons in the West Side of Vancouver). Five per cent of them are living in very poor conditions. Thus, we can assume that the CCC facility might provide up to 100 units of rental housing

according to the BCHMC Design Guidelines indicating this size of development as the most economical from the financial, property and management, and maintenance point of view (BCMHC 1989 Proposal Call - Blue Book, p. 1).

4.1.2. CO-OPERATIVE HOUSING

Co-operative housing is becoming a popular way to satisfy the elderly's housing needs. It provides for user participation in several Committees, Board of Directors and permits them to influence the affairs of the co-op. In addition it provides non-profit, cost efficient housing. In 1980 there were only six co-op housing projects for seniors in Canada. By 1986 there were 15 and today there are 45, offering 2,000 units (The Courier, April 2, 1989).

An alternative option of Independent Living Housing could be a new form of a non-profit housing co-operative for senior citizens recently developed in B.C. by the Columbia Housing Advisory Association. This type of Housing Co-op doesn't require government subsidies (see Chapter 3 - Residential Objectives). Instead, members purchase shares which amount to at least 20% of the cost of their units. Monthly housing charges are based on the mortgage and operating costs per unit. This option could be offered to people who sold their family houses and are looking for smaller, more manageable dwelling units. According to their experience in management of existing seniors' co-ops, Columbia Housing Advisory Association suggests

the number of 50-70 units as the most appropriate size of the co-op. In the CCC cooperative housing, there would be 50 units grouped in 4-5 clusters, creating the scale of the cluster to which most elderly residents may comfortably relate (Alexander 1977, p.202).

4.1.3 STRATA-TITLE HOUSING (CONDOMINIUM)

The term condominium refers to exclusive ownership of one housing unit in a housing project and co-ownership of a fraction of common space and amenities. The monthly payment covers the mortgage, taxes and maintenance cost. According to the Condominium Act, there shall be a council elected annually from the members. The Council has power to act for the group as a whole. However, the members are released from the responsibility of management of the project. The council hires the manager. Although the members have control over their units they are less involved in the operation of the project in comparison with co-op housing where involvement in common affairs is mandatory.

According to the 1985 HOMES National Survey on housing market characteristics and demand, (Berger, Godin, and Harvey 1986) one of four Canadians between 55 and 64 years of age is a potential homebuyer. The region showing the most active market is British Columbia. There, twenty seven percent of the population in the 55 plus age group are interested in buying a home. The survey has shown that although the prefered housing type by

the majority of Canadians (80%) was a single detached house, the second preference was apartment-condominium (6%) and townhouse condominium (2%). Moreover, four percent of respondents said they would seriously consider, and 15% said they would somewhat seriously consider buying a condominium (Berger, Godin and Harvey, 1986, p.62). We can assume that there could be a demand for purchasing condominiums in the CCC facility. Similarly to the cooperative housing, the Condominium Clusters will be comprised of 50 dwelling units.

Since the variety of housing options will be addressed to various needs of the elderly, the potential residents of the CCC will have flexibility of choice and opportunity within their means to live as they wish. In addition, all three types of housing - social housing (standard units, affordable rent), cooperative housing (affordable mortgage, more space) and private housing (higher quality, more space) - will adopt a prosthetic approach to design by providing environmental support to encourage independence of senior residents (see Chapter 3, L.E.O. #2, 3, 4).

4.1.4 SERVICES IN THE INDEPENDENT LIVING HOUSING

The types of services provided in elderly housing will vary, depending on the level of dependence of residents. In Independent Living, where the level of dependency is "very low", the elderly will live independently with only minimal support. Services such as transportation, social events, or recreational

activities could be mainly available in the central part of CCC - Core Centre or Outdoor Activity Centre. In the Supported Independent Living where the level of dependence is "moderate low", social services will be mostly required. The residents may be looking for information, and a pleasant atmosphere. When the level of dependence changes to "moderate", personal services as well as social services will be required such as: counselling, house-keeping (cleaning, minor house repairs), meals-on-wheels or wheels-to-meals, security checks, telecare, day care or friendly visiting and 24-hour security. This kind of services could be provided by the Home Support and Home Care from the Core Centre component. Also, the social planning staff from the Core Centre may provide a variety of recreational activity programs in the common areas or may organize trips away for shopping, dining or cultural events.

4.2 HOUSING FOR PERSONS REQUIRING LONG TERM CARE

The second major component of the Continuum of Care Complex could be Long Term Care Facilities including Intermediate Care (three levels), and the Extended Care.

Long-term care is the provision of organized services to a person with a chronic disability over a prolonged period of time. The goal is to attain and maintain an optimal level of functioning in the patient. It includes services for patients in institutional and home settings (Report of CMA, 1987). At present, there is a sharp division between care in the community

and care in the institution; indeed, services are generally fragmented. According to the Report of the CMA, 1987 "the provision of a continuum of care, with the various elements blending together, should be the underlying principle in planning services for the elderly". The Continuum of Care Complex will provide a comprehensive and coordinated system of care ranging from home support and home care to treatment in Intermediate Care and Extended Care facilities. The CCC will be a multi-level centre with graduation of care organized and delivered in one setting. Moreover, there will be the Day/Night Care, Respite Care and Holiday/Vacation Care for the elderly who are living in the neighbourhood.

4.2.1 INTERMEDIATE CARE:

The three level Intermediate Care facility will provide services for frail elderly people who have limited mobility and whose level of dependency is "moderate high". Therefore, all spaces will be handicap accessible and a variety of services may be offered to its residents. Generally, all three levels could provide the basic types of services: personal, social, and health care services.

Intermediate Care level I recognizes the individual who requires moderate assistance with the activities of daily living and minimal professional care and supervision. The focus is on reactivation and maintenance program with medical and professional nursing supervision. The program could encourage and

maintain independence in the activities of daily living, and also could meet the psycho-social needs of residents. Reactivation implies stimulation of the residents so that physical, mental and social abilities are brought to the optimum level and maintained.

Personal services provided at this level:

- supervision;
- personal care eg: personal grooming, hygiene, podiatry, housekeeping and personal laundry;
- three meals per day;
- counselling.

Social services provided at this level:

- activation program;
- social and recreational programs as desired;

Health care services:

- basic nursing services approximately 2-6 hours per resident/day;
- consultation;
- three months drug review;
- annual physical examination;
- medication administration;

Intermediate Care levels II and III provide personal and social services similar to services available on level I with added options such as:

- full dietary services;
- assistance with financial matters;

- needed supervision;
- emotional or behavioral condition support;

The health care services at this levels could include:

- medications administered by a registered nurse;
- part-time consultant physiotherapy and occupational therapy.
- daily observations;
- constant supervision required due to disorientation of the residents;
- other services available as may be required;

(Community Care Facility Act, 1980)(Ministry of Health Long Term Care Program, Policy Manual, 1983).

4.2.2 EXTENDED CARE

Extended Care differs from Intermediate Care because physical, mental or emotional conditions of resident- patient require ongoing assessment and intervention by all disciplines (e.g. nursing, dietary and medical). The Extended Care facility could serve the elderly with a "high level" of dependence who require professional nursing services on a twenty-four hour basis and regular continuous medical supervision. However, Extended Care does not require all the resources of an acute care hospital (BCHP Extended Care Design Guidelines 1988).

Services provided in the Extended Care facility could include health care and personal services. Social services will depend on the physical condition of residents. The Extended Care level could provide:

- daily help with grooming, toileting, mobility;
- daily treatments as may be required;
- medication administered by a registered nurse;
- therapeutic services: physiotherapy, occupational therapy and speech therapy.
- special diet
- mechanical aids for resident care eg: mechanical lifts or high-low beds, as well as specialized therapeutic aids;
- help and assistance in emotional or behavioral problems;

The major program differences among the Long-Term Care facilities are significant in terms of the special requirements and the provided services. Since the level of dependence of the elderly grows according to their gradual physical and emotional losses, consequently there is a necessity to provide a variety of care levels. However, most older people do not fit neatly into any particular order of services; only a few require all available services. Most elderly may need one particular service one day and different mix of services the next day. The Continuum of Care Complex may meet these diverse and changing needs through a network of different services available at all times in one place.

4.2.3. THE NUMBER OF LONG TERM CARE BEDS

At present there is no answer to the question "What is the right mix of residents in multi-level care facilities and Continuum of Care Retirement Communities (CCRCs)?" Researchers

do not know the extent to which continued interactions between CCRC nursing home residents and independent living unit residents affect the life satisfaction of each group (Gutman, 1988). For example, in Seton Villa -- a multi-level care facility in Burnaby B.C. the "light" or "heavy" personal care beds (Intermediate Care level) represented 25% of residents only. The remainder lived in self-contained and board-residents units and were essentially independent. "This mix seemed to work well." (Gutman 1988, p.10)

Another example is the Northwood Complex in Halifax, N.S. The facility accomodates 876 older people in various living arrangement from "self-contained" apartments through to "Nursing" care. There are 230 independent self contained apartments only (35% residents in 56 one bedroom and 174 bachelor apts.). The rest (65%) of 576 "care" beds offer progressive stages or levels of care made up of 112 "supervisory" care beds, 167 "personal" care beds, 297 "nursing" care beds. Although the Northwood Complex is very big and "there are those who believe it has grown too large ..", there in no indication that there is not a right mix among the levels of care. On the contrary, for many, the Complex is a model of excellence for the Province and the Country (Rogers 1987). According to Gutman (1988) positive attitudes towards mixing between levels in multi-level complexes or CCRCs are dependent also on management practices, policies and enthusiasm.

In Vancouver, there is a need for Long Term Care facilities

(see Chapter 2, Fig 2-5, 2-6). The total number of waitlisted residents for Intermediate Care facilities in 1986 was 694 and 69 for Extended Care Facilities (Vancouver Health Department Annual Report 1986). Based on the above data this Program assumes that the CCC should provide mainly Intermediate Care (90 beds) with cluster of Extended Care (42 beds).

4.3 THE CORE CENTRE

The Core Centre would create a major focus of activities within the CCC and would serve as liason between all levels of care within the facility and the community at large. This facility component would create an informal community network of friends and relatives, would provide life sustaining and life enriching resources for the residents as well as older people from the Point Grey neighbourhood and would enhance business integration with the entire community. For the residents, the Core Centre will be a place where they may spend time inexpensively and profitably. It may generate friends, opportunities for personal growth and contact with the community and "ongoingness" of life. It may also be a place just to go and watch when declining physical vigor no longer makes participation possible.

In keeping with the CCC facility objectives the Core Centre will centralize a number of services. There would be central administration, food services, laundry services, materials, supply building and plant services as well as central social and health services. However, only a few of the major Core Centre

components will exclusively serve the CCC facility residents. There will be several components which would provide services for the residents as well as for the visitors from the community. For example, the Core Centre components, which provide social and health care services such as the Auditorium and Special Programs, Arts and Crafts, Library, Rehabilitation Centre with fitness club and swimming pool and Food Fair can be organized under the auspices of the Senior Centre. The Senior Centre may play its unique role in the Point Grey community by providing for social, physical and intellectual needs of older people. It may stimulate, maintain and deepen a "sense of that community" as well as may provide opportunities for people to give their time in volunteer service. The Senior Centre may be run by the CCC residents and members from the community with support of the professional staff. We assume at this stage that adults 50 years of age and over will be eligible for membership in the CCC Senior Association. A membership may entitle a person to take part in Council sponsored activities and to take advantage of other programs and services offered within the Core Centre.

4.3.1. CORE CENTRE COMPONENT I - LIFE ENRICHING RESOURCES - CULTURAL CENTRE

As already mentioned in Chapter 2, there is an urgent need to expand the existing Brock House Senior Citizen Centre with more comprehensive programs and a wider range of amenities.

Brock House plays a significant role in the Point Grey Community by providing a variety of social and educational programs for 3000 members. However, there is no adequate space to accommodate bigger group meetings, cultural events, several Arts & Crafts activities, outdoor recreational activities, health and rehabilitation programs and health services as well as a Day Care Program. The Core Centre may respond to those needs by providing various life enriching resources. The major component would be the Auditorium and Programs, which would include a 200 seat Theatre and a couple of seminar and meeting rooms. Lectures, movies, concerts, special cultural events, Music and Drama club, classes for adult education and other programs would be offered to the CCC residents and to the whole community. This component will could also provide an opportunity for many social activities such as: bridge, bingo, trips, sing along, toastmasters etc. Then, there would be the Arts and Crafts component providing an opportunity for personal expression, developing creativity and social interaction. Within this component a number of workshops would be offered such as: woodwork painting, dyeing, weaving and pottery. The Library, with reading and listening rooms, could be for those who prefer reading, listening to music or learning a new language in their leasure time. For the youngest and more active elderly, the Core Centre will provide outdoor recreational activities in the various clubs such as bowling, mini-golf, croquet and gardening.

4.3.2. CORE CENTRE COMPONENT II - LIFE SUSTAINING RESOURCES - HEALTH CENTRE

The Core Centre would also provide life sustaining resources. The most sought component would be the Rehabilitation Centre which may be instrumental in developing a community spirit and would provide health care services. The Rehabilitation Centre would consist of Treatment Units providing physiotherapy and speech pathology services. Fitness and Dancing Club would provide exercise and kinestherapy services, while a large swimming pool with sauna could become the most attractive place in the Core Centre. Another important component would be the Medical Clinic providing medical, dental and counseling services. This component may enhance business integration with the Point Grey Community since it may serve not only the CCC residents but also the elderly from the community. The next component, Pharmacy, would serve the Long-term care facilities and dispense pharmaceutical supplies to their residents and the customers from the community. And last, but not least, a Seniors' Day Care Program would offer a wide range of activities and programs to the residents and older adults living in the community who require support to maintain an independent lifestyle.

4.3.3. CORE CENTRE COMPONENT III - SOCIAL INTERACTION AND BUSINESS INTEGRATION

The third group of functional components in the Core Centre would create an opportunity for informal community network of

friends and relatives. An opportunity for social integration could be created by providing facilities such as: restaurant, coffee-shop and bar. Designed as a "Food Fair", this component may become a magnet for all the residents and their visitors. Other facilities, which may add to an opportunity for social contacts and may enhance business integration with the community would be as follows: a winter garden with occasional art exhibitions, a beauty salon and a hairdresser, a bank and small retail outlets.

4.3.4. SUPPORTING AND MAINTENANCE COMPONENTS

The fourth group of the Core Centre components will serve the CCC facility only. There will be Laundry, Material Services, Building Services, Plant Services as well as Administration and Staff Support components.

4.4. OUTDOOR SPACES

The outdoor landscape should be considered as the principal element in creating a successful environment for the elderly, because it has great therapeutic value besides enjoyment and pleasure. For most people, nature holds deep meaning: it is a place of refuge, peace and tranquility, and symbol of life and growth. Research findings support the idea that people gain a great deal of pleasure from contact with nature. Moreover, the benefits gained from natural scenes go beyond simple pleasure.

Recent research has proved (Reinzenstein Carpman 1986) that the landscape has therapeutic significance. The studies suggest that the availability of nature, the form of views from windows as well as accessible outdoor spaces, can be restorative. Many elderly are under stress. Reizenstein said that:

> According to one researcher, if an individual is stressed, viewing an attractive natural scene will be soothing because it can elicit feelings of pleasantness, hold interest, and block or reduce stressful thoughts (Reizenstein Carpman 1987, p.197).

Many older people in the CCC either by choice or physical limitation may spend most of their time in their dwelling units. Provision of outdoor landscaped spaces in form of private patios or balconies and a view to outdoor common activity areas could be very stimulating and appealing for the elderly. Outdoor spaces provide a change of environment close at hand, an area to grow flowers and personalize, and they can perceptually increase the size of living space. They offer immediate access to fresh air which is important for some tenants with respiratory problems. In addition, outdoor extensions of patios can provide secure and protected environments for casual socializing with others (Zeisel 1977, p.44).

4.4.1. OUTDOOR SPACE COMPONENTS

The outdoor areas would consist of private outdoor spaces and common activity areas. The private outdoor areas would be part of each Independent Living cluster, as well as each Long

Term Care residential cluster, in the form of private yards/ patios, porches or balconies. These private spaces will:

> protect the dwelling as a secure territory, provide outdoor extensions for expanding living spaces in seasonable weather, and provide an intermediate zone between public and private which allows social, neighbourly contacts to be casually made (Shack 1977, p.55).

The CCC common outdoor spaces would include two types of areas. Firstly, the common outdoor space would be interlocked with private outdoor spaces in the residential clusters in the form of a common garden, central pathway or a "gateway" gazebo. Secondly, four functional components, the Country Club, the Rehabilitation Outdoor Areas, the Garden Centre and Park would create the CCC community Outdoor Activity Center. That Outdoor Activity Centre would be located adjacent to the Core Centre and along the pathway leading to the Core Centre. The outdoor common area would be designed to increase opportunities for individual choice and to accomodate three types of activities:

1. Passive Areas: places which permit solitude (retreat) and those places which will offer an opportunity for watching the activities of others.
2. Active Areas: these areas will offer a range of recreational activities such as mini-golf, croquet, bowling, volleyball, gardening, social gathering in the picnic and BBQ areas or in the outdoor Theatre designed for special cultural events.

3. Connecting Areas such as Park with walkways would link the above noted two groups.

For more active residents the existing Jericho Park and all its amenities could be available through the proposed overpass above 4th Ave.

The Outdoor Activity centre will play a significant role in creating the CCC special environment. First of all, it would be a place where the most active residents of the Independent Living units could spend their leisure time taking advantage of Vancouver's mild climate and garden setting. Secondly, it would be a very stimulating area for those residents who can not any more take an active part in the recreational activities but still are willing to observe games and share enjoyment with their peers. Thirdly, the Country Club component by providing many play/game courts, may be appealing to adults from the whole neighbourhood. Thus, it may create an opportunity for social integration with a relatively younger generation.

4.5 CONCLUSION

In conclusion, all four major facility components: Independent Living Housing, Long Term Care facilities, the Core Centre and the Outdoor Spaces will create a special, continuum of care enviroment for the elderly. However, the Core Centre and Outdoor Spaces may contribute to the unique atmosphere of the CCC, which may enhance the residents dignity, support their independence and encourage their involvement in community affairs.

The Core Centre will embrace three different hubs:

1. The "Health Centre" with the Clinic, Rehabilitation and Pharmacy which would serve the elderly to support their physical losses.
2. The "Cultural Centre" with the Auditorium, Arts and Crafts, and Library which would satisfy their cultural needs and
3. The "Leisure Centre" with the Outdoor Activity Centre, Food Fair, Winter Garden, Swimming Pool, Dancing and Fitness and other social clubs. The Core Centre with its outdoor activity clubs may become an attraction not only for the whole neighbourhood but also for the elderly from the West Side of Vancouver.

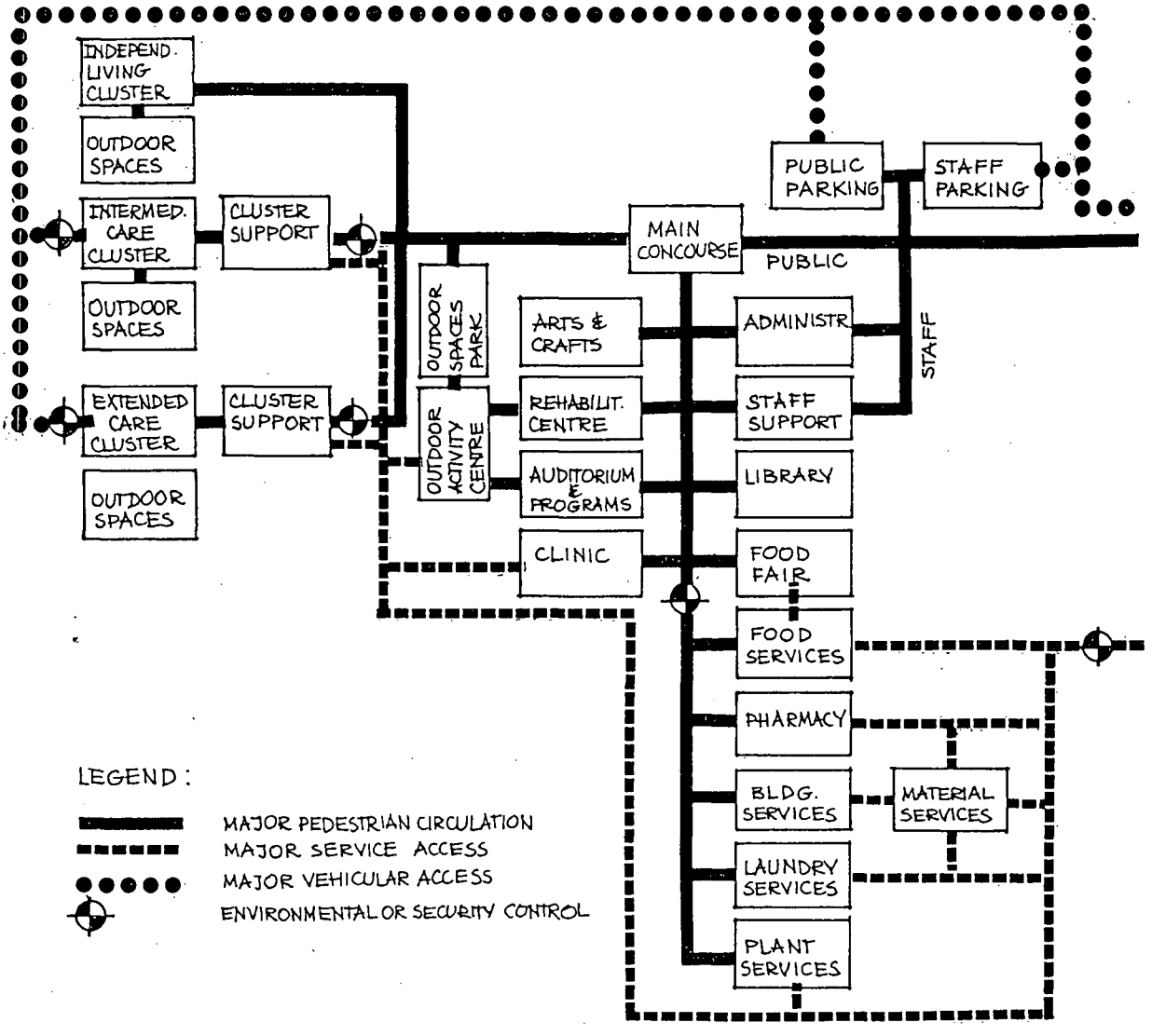


Fig. 4-1 Access and Control Model of the CCC Facility.

CHAPTER 5 -- GENERAL PROGRAM REQUIREMENTS

Chapter Summary

Chapter 5 is the thesis synthesis and consists of the CCC facility program. The classification system, which has been adopted to develop the program follows a functional model. All facilities belong to one of four major facility components described in Chapter 4. The largest entity is the Continuum of Care Complex. Within it, there are four major facility components: Residential Independent Living, Residential Dependent Living, Core Centre and Common Outdoor Spaces. Within each facility component, there are several program components and activity centres.

5.1. RESIDENTIAL HOUSING - INDEPENDENT LIVING CLUSTER

5.1.1 Functional Components

In keeping with the objectives of the project, housing units will emulate to the greatest possible extent a normal, independent living environment. The units will contain spaces similar to those found in other community housing and will conform to the design criteria of the BCMHC and CMHC. As pointed out in Chapter 4, the Independent Living Cluster will be comprised of three types of housing: Rental Housing (BCMHC Program), Cooperative Housing (CMHC Program) and Strata-title condominiums (Market Housing).

The number, ratio and size of units in the Social Rental Housing (BCHMC) will conform to the requirements of the BCMHC Design Guidelines for Seniors' Housing. The size and ratio of units in the co-op housing and strata title was derived from the analysis of comparative data of selected examples of existing elderly housing developments in three groups:

1. Co-operative housing for the elderly.
2. Independent living dwelling units in the multi-level facilities.
3. Recently built condominiuums for the elderly people in the Point Grey Area (see Appx. 5-1).

It was also acknowledged that current housing demands and preferences of middle to higher income older persons differ from expectations of elderly in the 1970's.

> For example, evidence gathered by Laventhal and Horwath (1983) in longitudinal and cross-sectional analyses of Continuing Care Retirement Communities (CCRC) shows an increase in the popularity of larger size units. While the studio or one-bedroom unit has been the most popular unit choice in the last 10 years, two-bedroom and even three bedroom units are becoming increasingly popular for affluent retirees over the age of 75 (Regnier, Pynoos 1987, p.16).

Therefore, in the co-op housing and strata title cluster bigger dwelling units would be programmed to respond to the demand of the market.

Table 5-1.--Housing Type #1 Rental Housing
Space Program

Component	Q-ty	Unit Net Area	Total Net Area	Remarks
100 dwelling units; total number of residents: 110 3 storey apartment building.				
1 BR Single	86	46 m2	3956 m2	
1 BR Double	9	52 m2	468 m2	
1 BR Handicapped	5	52 m2	260 m2	
Floor Lounge	2	30 m2	60 m2	
Main Lounge	1	60 m2	60 m2	
Adm. Office	1	10 m2	10 m2	
Maint. Storage	1	10 m2	10 m2	
Common Laundry	3	15 m2	45 m2	2 Washers & 2 Dryers/each
Communal Storage	1	23 m2	23 m2	
H.Toilet at Lounge	3			
Garbage(chute)rm.	3			
Service Rms (M&E)	1	Approx.	82 m2	Design Space
Mail Room	1			
Elev. Mech. Room	1			
TOTAL			4974 m2	

GROSS AREA: 4974 x 1.3 = 6466.2 m2

Priv.outdoor spaces 100 x 5 m2 = 500 m2 Patios/balcon
Parking: 1 space per 4 units, 25 spaces x 26.5 m2 = 662.5 m2 on ground (includ. aisles)

References:
EM Architecture Inc., 768 Prior St., Senior Citizen's Complex - Chinese Freemason's Society (BCMHC Housing) 1989.

Table 5-2.--Housing Type #2 Co-op Housing 50 Dwelling Unit Space Program

Component	Q-ty	Unit Net Area	Total Net Area	Remarks
1 BR+Den(30%)	15	84 m2	1260 m2	
2 BR (35%)	35	87 m2	3045 m2	
Communal Stg.	1	25 m2	25 m2	
Communal Laun.	1	15 m2	15 m2	2 Washers & 2 Dryers
Office	1	10 m2	10 m2	
TOTAL			4355 m2	

GROSS AREA: 4355 x 1.3 = 5661.5 m2
Private outdoor spaces: 50 x 12 m2 = 600 m2
Parking: 1 space per unit 50 spaces x 26.5 m2 = 1325 m2

Table 5-3.--Type #3 Strata Title 50 Dwelling Units Space Program

Component	Q-ty	Unit Net Area	Total Net Area	Remarks
1 BR (10%)	25	70 m2	350 m2	
1 BR + den (20%)	10	84 m2	840 m2	
2 BR (70%)	35	96 m2	3360 m2	
Lobby lounge	1	30 m2	30 m2	
TOTAL			4580 m2	

GROSS AREA: 4580 x 1.3 = 5954 m2
Private outdoor spaces: 50 x 12 m2 = 600 m2
Parking: 1.5 space per unit, 75 spaces x 26.5 m2 = 1987 m2

References:
Outdoor private spaces comply with requirements of BCHMC Design Guidelines for Seniors' Housing; Green 1974, p.14; Carstens 1985, p.105.

5.1.2. Housing Pattern and Critical Issues:

People need to identify with the neighbourhood and feel comfortable in their houses. Therefore, it is necessary to provide an adequate type of housing arrangement that will eventually fulfill their needs. Research studies on housing (Alexander 1977) have indicated that the most appropriate pattern is the cluster of land and homes immediately around one's own home. That pattern can be implemented using Row Houses.

A vital function of such a cluster is neighbourly contact which becomes one of the most important objectives in the creation of elderly housing. The same research study says that the most appropriate size of the cluster is 10 or 12 housing units because:

> this is a number of people that can sit round a common meeting table, can talk to each other directly, face to face. With 8 or 10 housholds, people can meet over a kitchen table, exchange news on the street and in the gardens, and generally,without much special attention, keep in touch with the whole of the group. When there are more than 10 or 12 homes forming a cluster, this balance is strained. We therefore set an upper limit of around 12 on the number of housholds that can be naturally drawn into a cluster (Alexander 1977, p.200).

The CCC housing will comprise several clusters with the average number of 12 dwelling units in each cluster.

The critical issues within this pattern are: shape (layout) of the cluster, cluster identity and link with the Core Centre.

5.1.2.1 Shape (layout) of the cluster

The shape of the cluster affects opportunities for social

interaction. It is necessary to create a common land -- open shared space which will play a double role: as a semi-public outdoor place where the elderly gather socially and as a cluster's garden with semi-private or even private areas in front of the dwelling units (see Fig. 5-1). Equal access from the units and visibility from private patios will promote a sense of ownership and control over common space. Other design guidelines suggests placing the unit entries towards common space. Access walks leading to units should be separate from the common access walks to the facility. This arrangement will enhance cluster identity and increases residents' control over access. A shared walkway and a common laundry in the centre will provide opportunities for social interaction. Private unit walkways will provide a transition zone from semi-public area to semi-private space. Small parking areas adjacent to units will enhance the sense of community (see Fig. 5-2).

5.1.2.2 Cluster Identity

Each cluster should be arranged as an identifiable part of the larger project to promote wayfinding and to identify with it. Natural site elements as well as built form elements like colour, scale and materials will unify cluster visually. This allows people to realize that all units in one cluster relate to one another. Furthermore, cluster identity can be reinforced by grouping the sitting area with communal facilities such as laundry or storage (see Fig. 5-3).

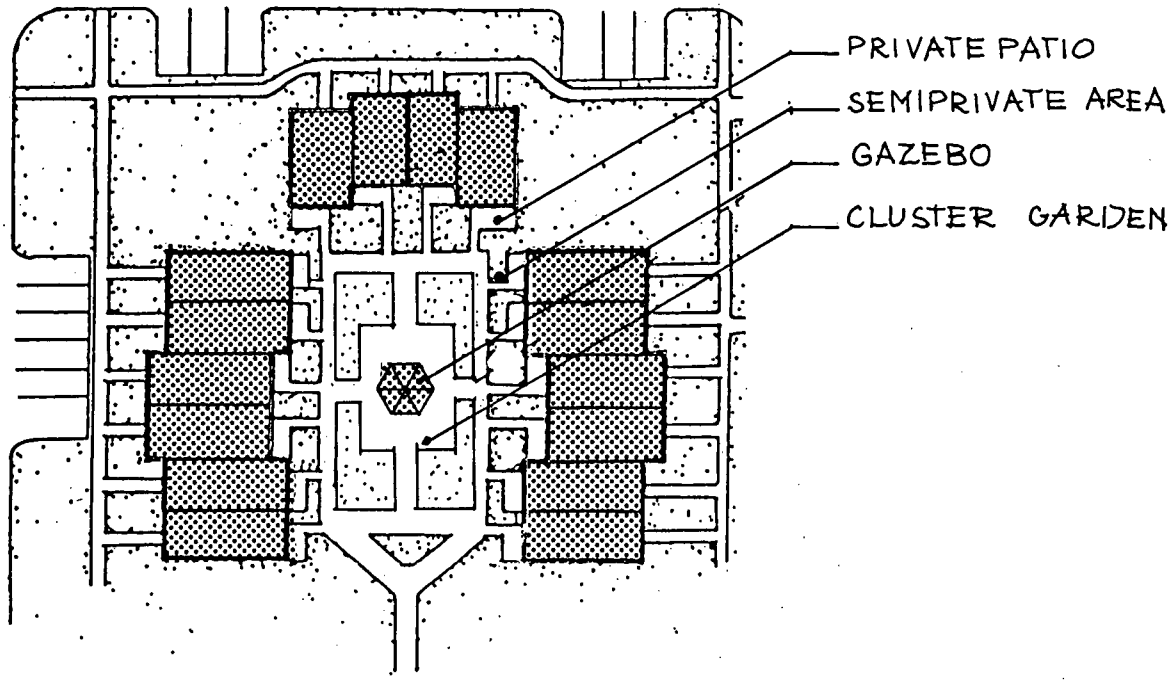


Fig. 5-1 Common Space in the Cluster as a Garden

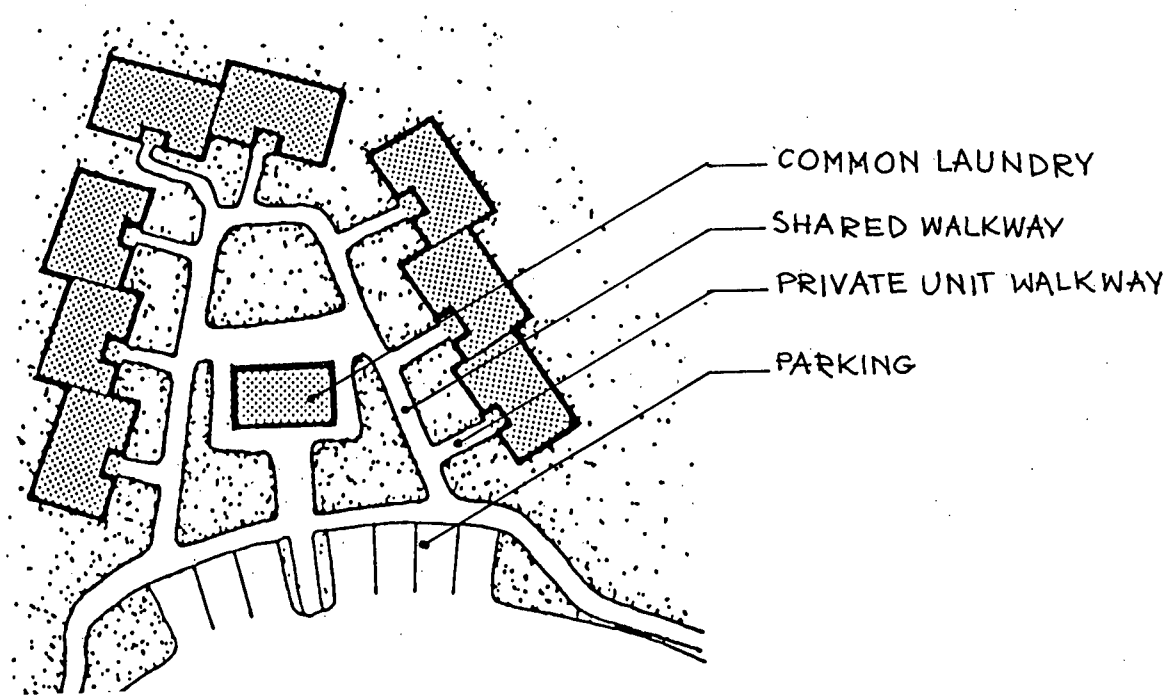


Fig. 5-2 Common Space in the Cluster with Shared Walkway

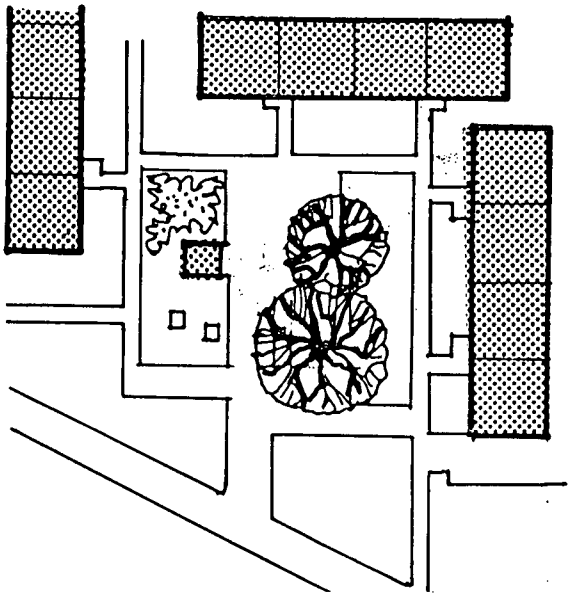


Fig. 5-3 Cluster Identity Reinforced by a Central Sitting Area and Shared Storage Shed.

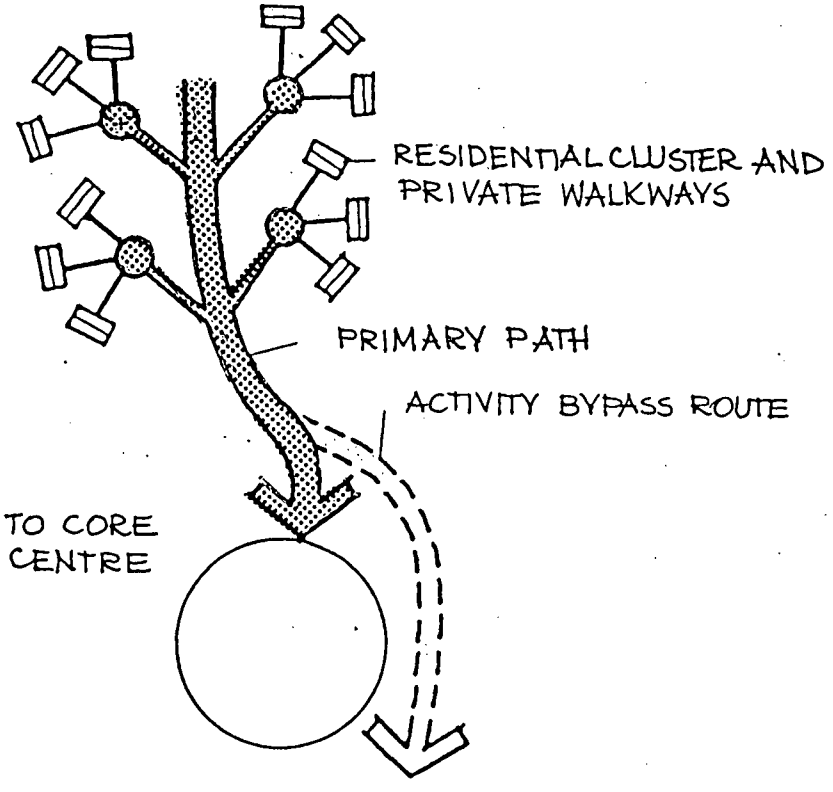


Fig. 5-4 Pedestrian Circulation Developed as a "Feeder" System.

Source: Based on Carstens, D. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. 1985, p.39.

5.1.2.3 Relationship with the Core Centre

It is necessary to provide direct, easy access to the Core Centre where all major services are located. The layout of pedestrian and vehicular circulation systems within the overall site plan should be easy to recognize and identify. The general layout of the pedestrian circulation system may be developed as a "feeder" system (Carstens 1985). Walkways leading from units may converge on a cluster walkway and cluster walkways converge on a major access route which leads to the Core Centre. A hierarchy of routes, from private unit access walks to primary routes, will enhance privacy within the clusters and a sense of community within the overall site plan. It will also promote wayfinding (See Fig. 5-4) and subsequently will add to older residents' sense of security.

The "shared circulation" pattern will give residents the maximum chance of meeting one another casually so that it will enhance opportunities for social interaction. In order to provide safety and security the pedestrian path system should not cross with the vehicular routes system. The major access walkway should not pass directly through the activity area; however, it should allow for surveilance from those areas. In order to provide maximum comfort for residents the main access walkways should be protected from rain or sun glare by a trellis or canopy.

5.1.3 DWELLING UNITS

5.1.3.1 Functional Components

The principal form of shelter in the Independent Living Component of the CCC will be a dwelling unit. Spaces in a dwelling unit will embody the basic activities of everyday living such as: sleeping, leisure, personal hygiene, food preparation and dining. These activities are common to all residents and they determine the relationship between spaces as well as the size, shape, equipment and character of the space. Each unit will include components such as an entry area, dining/living room, kitchen, bathroom, bedroom(s), storage space, and balcony or patio.

5.1.3.2. Category of users and their needs

Generally the users will fall into three categories: the elderly couple, the single elderly person (usually women) and two elderly relatives or friends sharing a unit. Singles usually will live in the one-bedroom units while couples in one-bedroom or two-bedroom suites with enough space in the bedroom for double or twin beds. However, each of the 3 Types of housing development described earlier should offer various forms of one and two bedroom dwelling units in order to accommodate a wider range of housing needs and life-styles.

> These needs can include ease of maintenance, flexibility in furniture arrangements for hobbies, space for entertaining large groups of family and friends, options for eating, adequate storage for valued possessions and convenient and safe access between rooms without sacrificing privacy (Zeisel 1987, p.20).

Studies have shown considerable differences in need between conventional housing provisions and the requirements of disabled people. In keeping with the Living Environment objectives (Chapter 3). each of the units should be adaptable for use by handicapped persons. The Co-op and Strata-title townhouses should be designed as one-level units to facilitate accessibility. The dwelling units provided by the BCHMC Program have to comply with the BCHMC Design Guidelines (5% of units wheelchair accessible).

One of the most critical, yet overlooked, aspects of the physical environment is the matching of equipment, furnishing and design details to the special physiological needs of the older person. Safety features and design solutions that support independence and reduce physical and sensory barriers for older persons should be implemented. The kitchen and bathroom are expecially critical, because design mistakes in the kitchen or bathroom layout can potentially threaten safety or endanger the life of older persons (Regnier and Pynoos 1987). The kitchen design should respect the anthropometric characteristics of the elderly. Bathroom design should emphasize convenience and safety (provision of grab bars, adequate light levels and fixtures, call buttons).

5.1.4 PRIVATE OUTDOOR SPACES - INDEPENDENT LIVING HOUSING

5.1.4.1 Introduction

Landscape design, although only one of many aspects of a housing project, plays a substantial role in creating high-quali

ty housing for the older people. Designing outdoor spaces for the elderly demands special attention for several reasons. Firstly, an appropriately designed environment that meets elderly needs may enrich their lives and improve their independence. Secondly, "functional" landscape that encourages participation of the elderly in its creation/cultivation plays a therapeutic role. In the Independent Living clusters all dwelling units will have private outdoor spaces (see Fig. 5-5). In the rental apartment building each dwelling unit will have balcony or patio.

5.1.4.2 Elements of Private Spaces

a. The front yard should not only be an attractive, personable side of a dwelling unit, but also a transition zone between a very private dwelling unit and a very public street or access route. This semi-private space may encourage social interaction between neighbours and provide an opportunity for self-expression. The residents' gardens may serve for therapeutic activities.

b. The front porch, a small outdoor space with a roof shelter, may provide residents with an easy half step between solitude and sociability. This place may serve as a comfortable sitting spot in one's own territory to watch outdoor activities or to chat with the neighbours. In many recent developments for the elderly, the front porch becomes one of the most desirable architectural features (Architectural Record 1988.Nov., p.120).

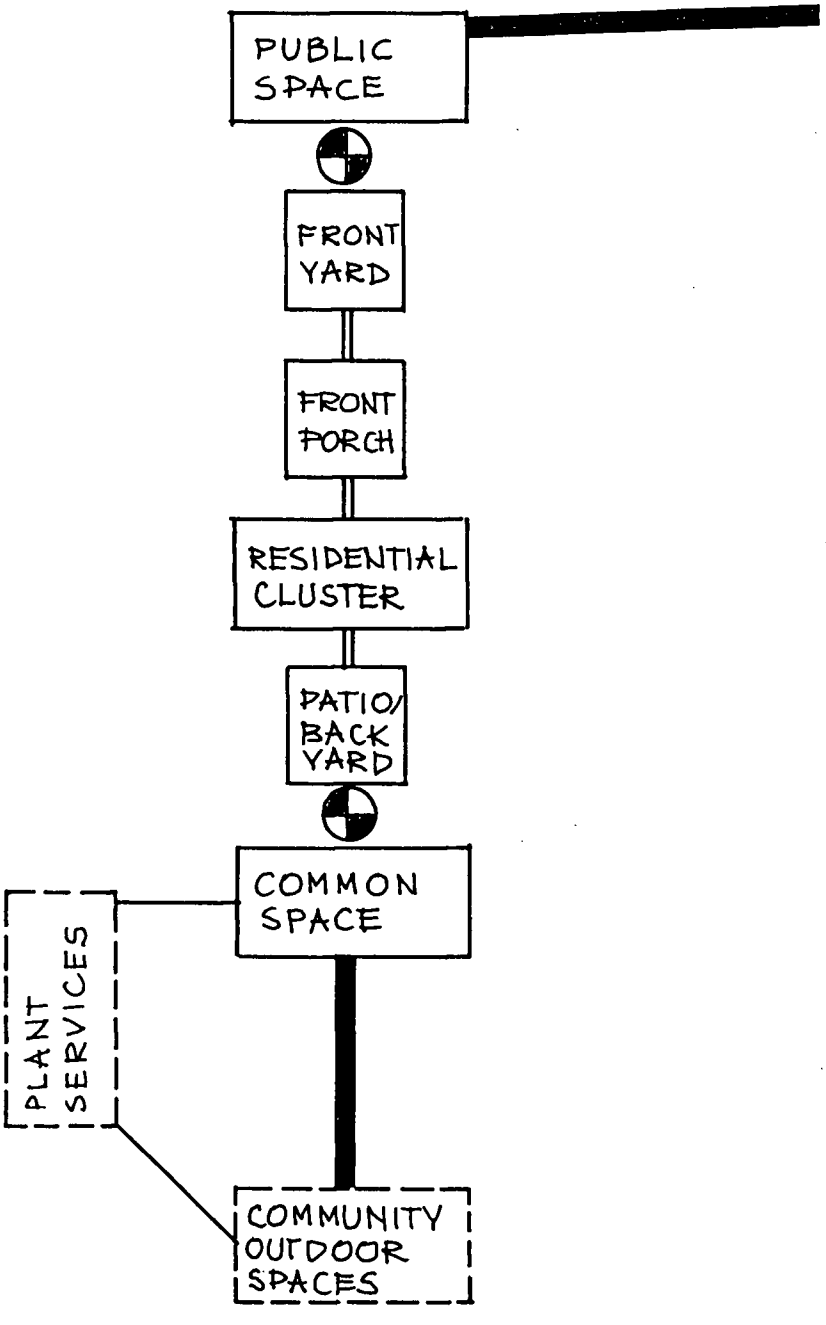


Fig. 5-5 Independent Living Outdoor Spaces.

because people like to watch common area activity. In Finland, in the competition for an old-age home, the institutional atmosphere was eliminated by using various homelike unit models with individuality and orientation supported by the front porch for every room-unit (Kotilainen 1987, pp. 52-56).

c. The back yard/patio is the informal private side of a dwelling. This space may be used in many ways: as a summer dining room, or as a place to rest, read, entertain guests or simply grow plants. However, this place require special consideration in terms of accessibility, security and privacy.

d. The Balcony may serve similarily as private outdoor spaces for growing plants, having social gathering or simply enjoying a view and also

> A balcony which is not too far removed from the ground (one is able to greet a friend) and which is not extremely enclosed, can create a sense of "connectedness" to the outside world (Shack 1977, p.61).

5.1.4.3 Issues in Designing Private Outdoor Spaces

The most important design issues in creating private outdoor spaces are: accessibility, security and privacy. The private outdoor spaces should be directly accessible to the Living Room of the dwelling unit. There may also be direct access to the sleeping area (Green 1974). The patio or garden should be planned so it can be easily maintained by the resident. In order to provide accessibility and security and to protect the privacy of private outdoor areas the following guidelines have to be developed:

a. Private outdoor spaces on the ground floor level:

- these area should be accessible to wheelchair residents, to those using walkers and occasionally to bedridden residents.
- direct access from the public outdoor area should be avoided by creating an identity for the outdoor private areas.
- there should be no direct accessibility between the private outdoor areas of separate dwelling units.
- in special locations design should provide for privacy from adjacent walks or drives by providing berms and screens.
- views on and off the site should be maximized, while at the same time loss of privacy should be minimized.
- visual accessibility between the living room and the general outdoor area should not be impaired by the design of the private outdoor area.

b. private outdoor spaces above grade - raised terraces and balconies:

- balconies must not only be safe, but they must also feel safe.
- whenever possible balconies should be recessed behind the main face of the building to provide a strong sense of enclosure, privacy and security.
- balconies should be protected from prevailing cold autumn and spring winds, and allow maximum sun penetration.

- provide for planter boxes or pots.
- be of a rough texture on the underside to disperse incident sounds.
- have a minimum threshold height to allow easy access from the unit.

On grade private space will have a paved patio of at least 100 square feet (9.2 m2). The remaining area should be designed for lawn or planting beds. Balconies will have at least clear dimension of no less than 5m2 for one-bedroom units (BCMHC Design Guidelines) or be of a minimum width of 1500 mm clear to provide space for several chairs and access to the wheelchair and its turn around (CMHC 1983).

5.2 DEPENDENT LIVING - INTERMEDIATE CARE FACILITY

5.2.1 Functional Components

The Intermediate Care facility will be developed in the form of residential clusters for the elderly who can not live on their own. Three levels of intermediate care will be offered: level 1, 2 and 3 (Appx.#0-1). According to the Vancouver Health Department, Report 1986 (Chapter 2, Fig. 2-6) there is a great demand in the City of Vancouver for long term care facilities, especially at the Intermediate Care levels (694 clients on the waiting list with a ratio of 37% for level 1, 29% for level 2, 20% for level 3 and remaining 14% for personal and extended care). Research has shown (Priest 1985, p.7; City Planning Department data 1986) that 10% of the elderly population is eventually forced to move into long-term care facilities when their health decline. For the purpose of this thesis we can assume that about 10% (231 persons) of the elderly population in the Point Grey Area will be seeking such long-term care. However, there will be also elderly residents living in Kerrisdale, Kitsilano and Dunbar who eventually will be transferred to long-term care facilities. With the existing 202 beds of Intermediate Care in the West Side of Vancouver we can assume that a "typical" three level care facility with an average of 30 beds per level would be sufficient to meet the current needs.

Intermediate Care Facility residents will be using common facilities in the Core Centre such as: Rehabilitation Centre,

Clinic, Auditorium and Programs, Arts & Crafts, Library and the Main Concourse with its services. The living quarters of the IC will be in the form of separate residential clusters with basic care and treatment rooms plus cluster support accessory spaces (Nurses Station with Medication Room, Wheelchair Shower, Linen Storage, Janitor Room, Residents'Laundry, Staff Washroom, Wheelchair Storage). Living units are similar in all levels of intermediate care and are either private or semi-private, each with a washroom (which includes wash-basin in a vanity and toilet but no bath-tub), entrance hall, clothes closet. Intermediate Care Components will be sub-divided into three nursing sections each comprising of 28 rooms. The 84 unit cluster (90 residents) will comprise the functional components as shown in table 5-4.

The living units in the IC facility will be arranged in clusters of 9-10 units around common area. Each cluster, in a social sense, will create a large "voluntary family".

The common area will be comprised of a lounge which will serve also as a dining room linked to the resident kitchen and serving area. The outdoor activity area - open shared space will be incorporated into each cluster by direct access from the living units and lounge/dining area. This arrangement will provide a smaller, human scale to the whole facility and will create a "residential neighbourhood" within the facility. This arrangement will also promote social interaction and opportunities for mutual awarness. The IC Component will comprise 9 living clusters and 3 support areas.

Table 5-4.--Intermediate Care Cluster
Space Program

Component	Q-ty	Net Area	Total Net Area	Remarks:
Cluster Type I				
Total number of residents: 10				
1 BR Single	8	18.0 m2	144.0 m2	
1 BR Double	1	25.0 m2	25.0 m2	
Loung/Dining	1	30.0 m2	30.0 m2	3 m2/ person
S.Kitch./Serv.	1	10.0 m2	10.0 m2	
Bathing Room	1	8.4 m2	8.4 m2	
Total:			217.4 m2	
TOTAL NUMBER OF CLUSTERS: 6			1,304.4 m2	
Cluster Type II				
Total number of residents: 10				
1 BR Single	10	18.0 m2	180.0 m2	
Lounge/Dining	1	30.0 m2	30.0 m2	
S.Kitch./Serv.	1	10.0 m2	10.0 m2	
Bathing Rm.	1	10.0 m2	10.0 m2	Therap. Bath
Total:			230.0 m2	
TOTAL NUMBER OF CLUSTERS: 3			690.0 m2	
Cluster Support:				
Nurse Station	1	10.0 m2	10.0 m2	
Med. Room	1	5.6 m2	5.6 m2	
W.chair shower	1	3.3 m2	3.3 m2	
Linen Storage	1	5.6 m2	5.6 m2	
Soiled Utility	1	11.0 m2	11.0 m2	
Janitor Rm/St.	1	3.0 m2	3.0 m2	
Res. Laundry	1	10.0 m2	10.0 m2	
Staff Washroom	1	3.0 m2	3.0 m2	
W.chair storage	1	12.0 m2	12.0 m2	
Total:			63.5 m2	
TOTAL NUMBER OF CLUSTER SUPPORT: 3			190.5 m2	
TOTAL AREA:			2,184.9 m2	
GROSS AREA (40 m2 x 90 residents)			3,600.0 m2	
Pirvate outdoor spaces: 84 x 6 m2			504.0 m2	

References:

B.C. Reg. 536/80. Community Care Facility Act. 1980.

CMHC. Nursing Homes and Hostels: Design Guidelines. 1979.

5.2.2 LIVING UNITS -- PATTERN AND CRITICAL ISSUES

Issue #1 Sense of residency

The general objective in designing long term facilities is to create a "residential" quality and adequate space for socialization on a spontaneous basis. In most of the existing facilities the living units have a form of hotel-like rooms despite the dramatic attempts of many designers to achieve a "home-like" quality and atmosphere. Indeed, those attempts were often addressed in main lounges, entry areas and common dining spaces. However, those feature do not provide a sense of residency, because they are not within the control of the patients-residents. According to Koncelik (1976) control over one's own physical environment in a long-term care facility depends largely upon five factors:

1. Mobility status. Four distinct levels of mobility are found in the long-term care setting: full ambulatory, disabled ambulatory (walk with canes and walkers), semiambulatory (wheelchair bound), and nonambulatory (bedridden).
2. Personalization. The ability of the resident to manipulate artifacts within his physical environment, to bring in personal objects, to affect the character of his or her surroundings in a way that is sympathetic to personal preference.
3. Socialization. The ability to communicate with others both in public areas in groups and in privacy, without regulation, threat or interference.

4. Privacy. There must be a place where every resident can go to or retreat to, that will permit seclusion for meditation, consultation, intimate discussion, personal activities and rest. The most logical place for this capability is the resident room.
5. Identification. The resident must feel that he or she belongs in the facility and the facility belongs to him/her. This can not only be aided through devices in the physical environment itself, but also by including the resident in planning and decision making at the staff and administrative level.

Mobility status, however, is the most important determining factor in controlling the personal surroundings and the overall facility. Mobility status is often the factor used in determining the various segregations of people within the facility. In "Designing the Open Nursing Home" Koncelik makes reference to a study done by Pastalan (1974) which discusses the accessibility model in a typical nursing home (see diagram: Fig. 5-6). The space in a facility is divided into two groups according to resident access. The first one, is a Primary Access Group which comprises of the "corridor neighbourhood": Resident Rooms, Lounges, Bathroom, Dining Room and Corridors. The second, is a Secondary Access Group with Therapeutic areas. In order to create a residential surrounding and a home-like atmosphere, the physical arrangement of the Primary Access Group spaces should be considered as the most important issue.

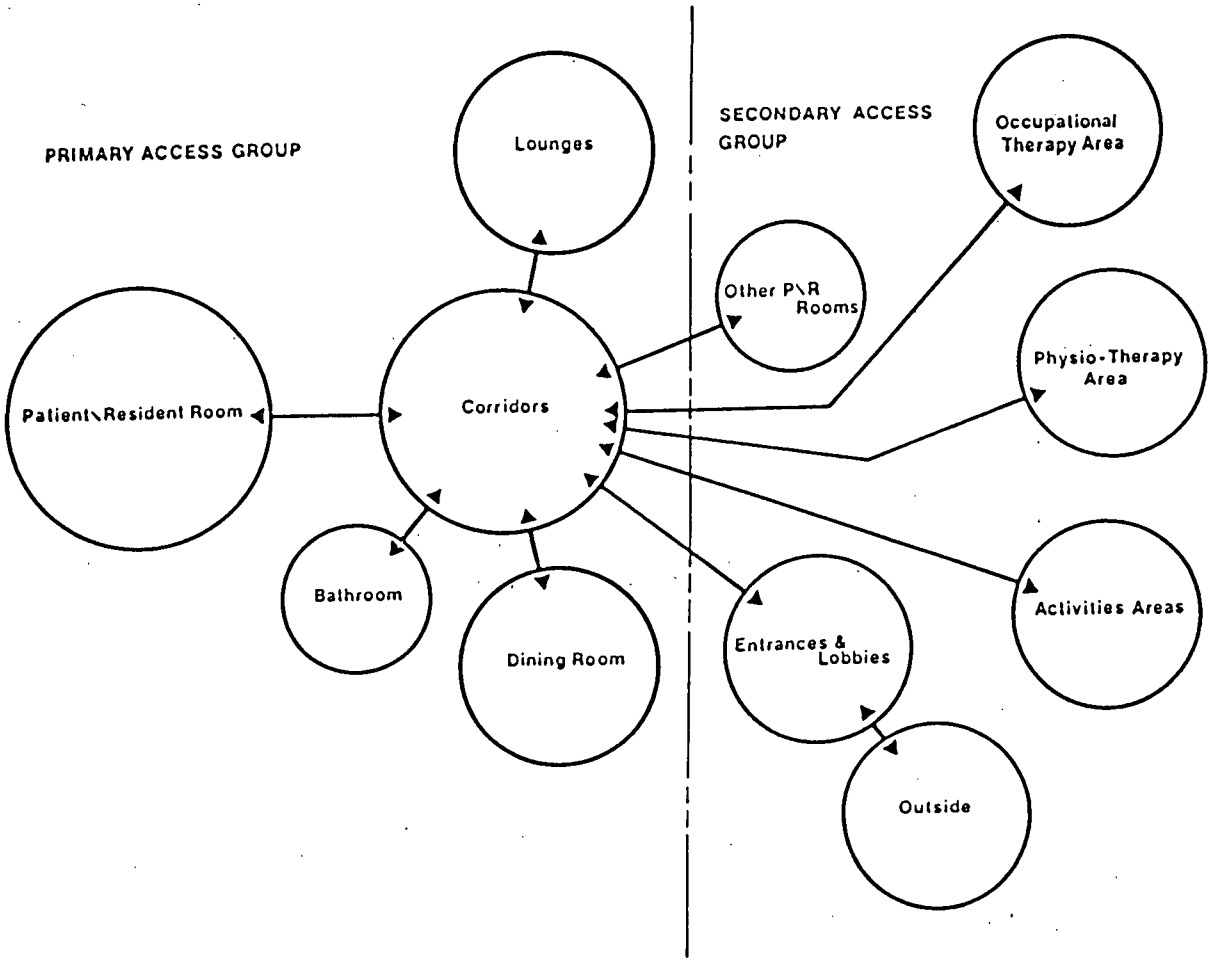


Fig. 5-6 Long Term Care Facility Access Model
Source: Koncelik, Joseph. Designing the Open Nursing Home. 1976, p. 46.

The CCC Intermediate Care residential clusters will create a primary access group space in the form of "homes" for ten residents. Each unit will open onto a shared lounge/dining room and not onto a corridor, which is typical of institutional solutions. Their spatial hierarchy will resemble a normal home with private space in the resident's room and washroom and semi-private area in the shared "living/dining" room. The individuality and orientation will be supported by giving identities to the entrance of one's room, for example, by small porches, and by making rooms of different shape. The individual private outdoor patios will be another feature of this "home-like" environment (See Fig. 5-8).

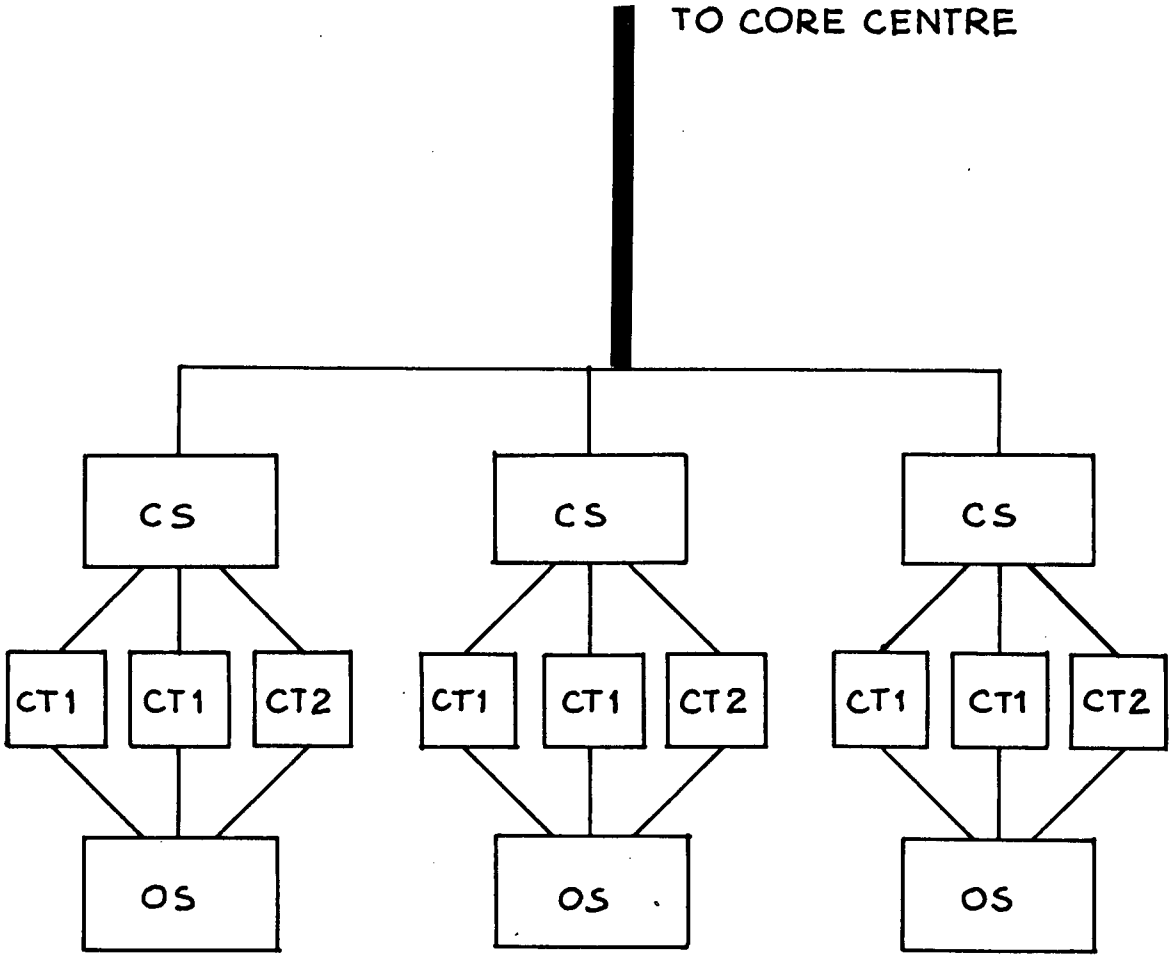
Issue #2 Flexibility

The principle of space flexibility has been implemented by a cluster approach to the facility programming. Residential clusters of 9-10 units around common areas, allow for change of use in terms of required level of care (3 levels) depending on the actual needs. The management has the option at any given time to decide on the number of beds and clusters in any level of care, without any need of change in the physical infrastructure of the buildings. This principle follows the overall policy of the CCC facility, which is based on a smooth transition of patients from one level of care to another. A change in the residents condition will not require moving them from their units, so long as the necessary care can be provided.

Issue #3 Link with the Core Centre -- Way finding within the CCC facility.

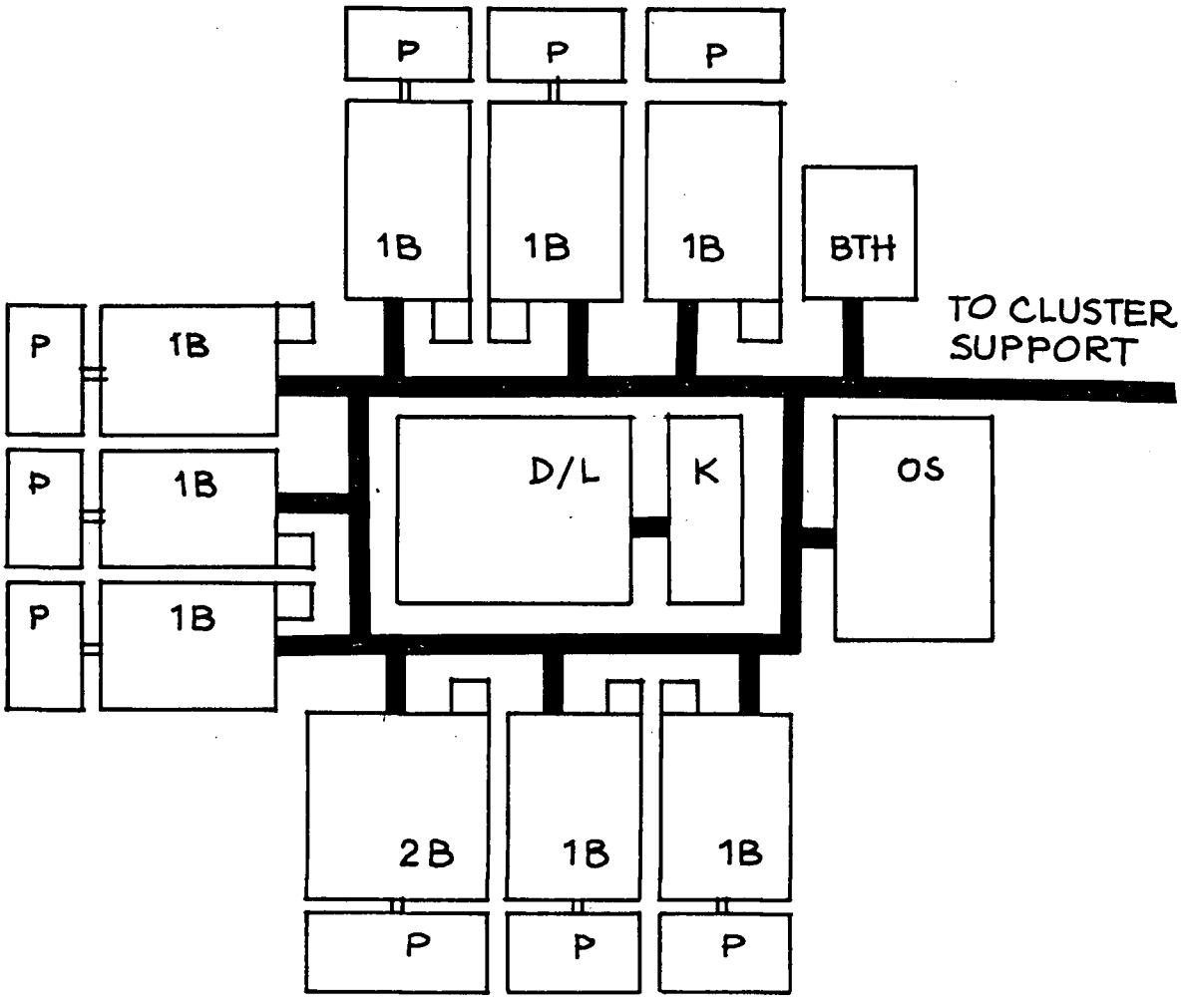
The functional connection with the Core Centre, particularly with the Rehabilitation Centre, Clinic and Main Concourse, will be very important. Several studies (Regnier and Pynoss 1987) of elderly people's environments have shown that beside creation of a barrier-free accessible environment, the legibility of settings has an impact on goal satisfaction, sense of control, stress and safety. Studies have shown that the problem of disorientation increases among residents of long-term care facilities, because of the elderly's reduced level of competence and cognitive functioning as well as the new unfamiliar setting of nursing homes. The post-occupancy evaluation of several elderly facilities assessed the efficiency of design features to facilitate wayfinding among residents. There are four classes of environmental variables, which have potential impact upon orientation and wayfinding in the elderly environment: signs, perceptual access, architectural differentiation and plan configuaration (Regnier and Pynoos 1987, p.445). The use of signs can impact the legibility of a setting by providing directional information. In the CCC facility there will be large graphic signs in all functional components as well as in the open spaces. The perceptual access to the long term care clusters as well as to the Core Centre will be enhanced by providing views to familiar exterior landmarks or views to other locations within the building such as a central atrium (Winter

Garden) or a common lounge/dining area within residential clusters. Since the architectural character of each functional component will be different it can also contribute to effective way-finding. Finally, the overall plan configuration of buildings, their shape or layout may influence the ease of way-finding. The long-term care facilities will be designed in the form of residential clusters connected to the main walkways, which will lead to the Core Centre. This "feeder system" of the circulation pattern will promote way-finding. The "promanade" as a main walkway with a glass wall instead of the sterotype institutional corridor will provide views to exterior landmarks (trees or surrounding activity areas), which will help residents in orienting. The layout of the residential areas, clustering sleeping units around common shared lounge/dining areas, will also promote way-finding. These open social areas will increase residents' spatial perception. The visual access to the open central area will diminish the effects of disorientation and may lead to a desire to explore further parts of the facility. At the entrance to each residential cluster, there will be latent cues such as plants, different colour scheme in furniture and on the wall, which will also contribute to the legibility of settings.



LEGEND:
CS - CLUSTER SUPPORT
CT1 - CLUSTER TYPE 1
CT2 - CLUSTER TYPE 2
OS - OUTDOOR SPACES

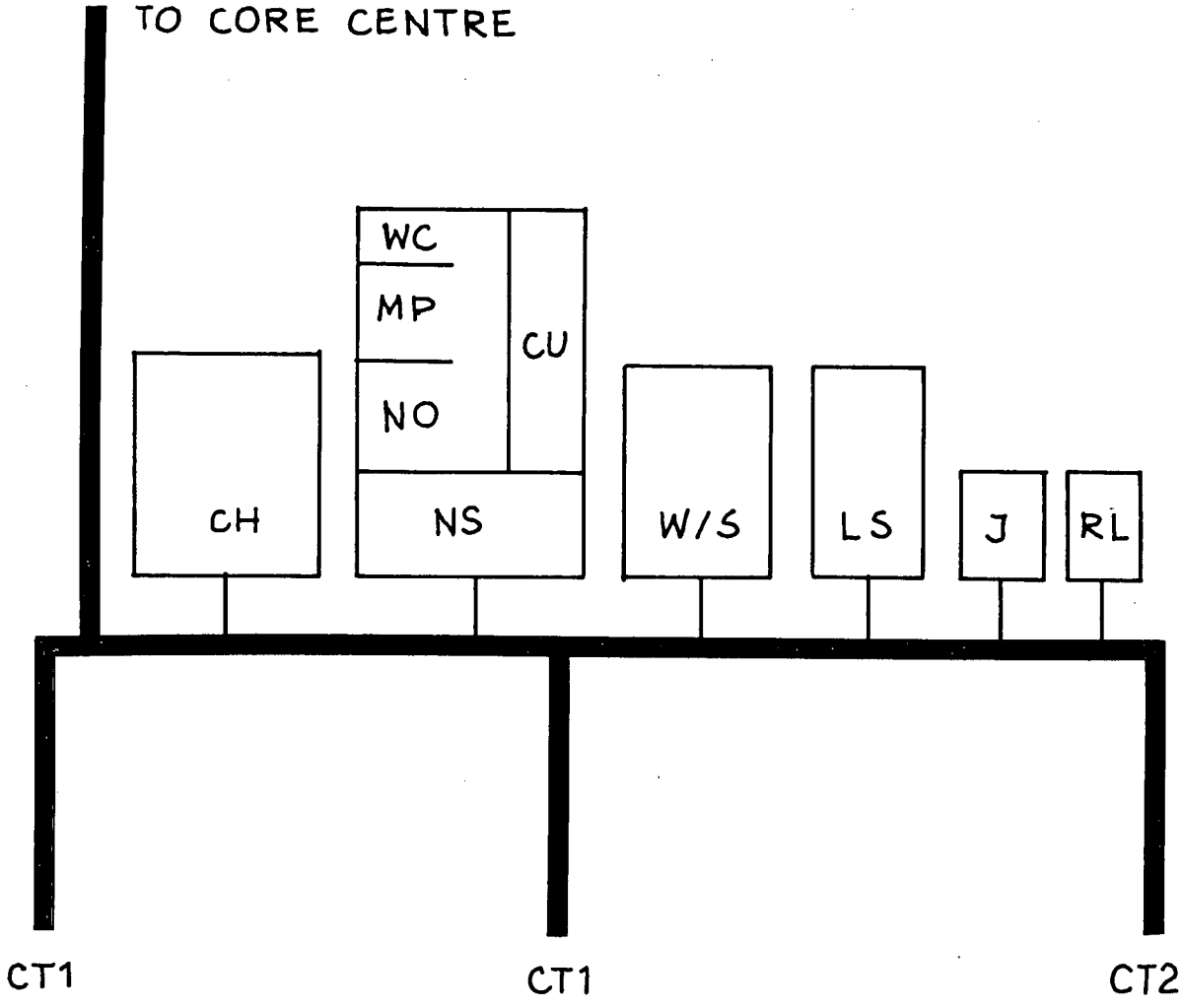
Fig. 5-7 Intermediate Care Facility



LEGEND:

1B	1 BEDROOM
2B	2 BEDROOM
BTH	BATHROOM
D/L	DINING/LIVING
K	KITCHEN/ SERVING
OS	OUTDOOR SPACES
P	PATIO

Fig. 5-8 Intermediate Care Cluster Type 1



LEGEND:

CH	MEDITATION RM/CHAPEL	W/S	WHEELCHAIR STORAGE
NS	NURSE STATION	LS	LINEN SUPPLY
NO	HEAD N. OFFICE	J	JANITOR ROOM
MP	MEDICINE PREPARATION	RL	RESIDEN. LAUNDRY
WC	STAFF WASHROOM	CT1	CLUSTER TYPE 1
CU	CLEAN UTILITY	CT2	CLUSTER TYPE 2

Fig. 5-9 Intermediate Care Cluster Support

5.3 DEPENDENT LIVING - EXTENDED CARE FACILITY

5.3.1. Functional Components

The Extended Care Facility Program has been based on the Design Guidelines of the Ministry of Health (Hospital Programs). The Extended Care Facility has been programmed for 36 patients plus 6 beds in the observation units.

The Extended Care component differs from the Intermediate Care component because of the fact that the physical, mental or emotional conditions of the E.C. residents require ongoing assesment and intervention by many disciplines e.g.: nursing, dietary, and medical (Appx. # 0-1). The Extended Care facility will serve the elderly with a "high level" of dependence who require professional nursing services on a twenty-four hour basis and regular continuous medical supervision (Appx. #0-1).

The Extended Care component will provide private or semiprivate living units, each with washroom. There will be one, two and four-bedroom wards. However, accommodation for a single occupant will be a minimum of 60% of all residents. The Living units will be comprised of an entry area, living-sleeping area, washroom and a closet for the resident's clothing and personal belongings.

5.3.2. Living Units Pattern and Critical Issues.

Issue #1 - Cluster approach

Groups of 9 - 10 rooms will be clustered with a lounge space and dining area, thus creating a "neighbourhood of 12 residents".

There will be three clusters with one Support Area. That area will include a Nurses Station with Medication Preparation and Storage Room; Head Nurse's Office; Staff' Washroom; Clean Utility Rooms; Linen Storage; Janitor Room; Residents' Laundry; and Furniture/wheelchair Storage (see Figs. 5-11, 5-12, 5-13).

Issue #2 - Residential character

In achieving a residential character for the EC there are two important functional elements: a living-unit and the cluster's lounge. Older people desire a choice in living accommodations. Therefore, the design has to provide a variety of living-unit configurations. Furtheremore, the elderly look for a sense of autonomy and they need an environment that extends and enhances their independence. Therefore, in each living-unit as well as in the whole facility special design features and details will be provided in order to improve their independence, e.g.: supplementary light sources, hand-rails, "friendly" furniture. The residents will be able, to some extent, to personalize their living-units with their own furniture and other personal belongings. However, the most important factor affecting the elderly is their limited mobility. The Extended Care Facility will be wheelchair accessible throughout.

One of the most important spaces will be the cluster's main lounge. This area will play a multifunctional role: as a dining, leisure and activity area. As research has shown (Koncelik 1976) many residents of the EC will stay in their rooms without being

willing to participate in any common activities. Approximately 20% of the patients in an Extended Care facility are expected to be unable to participate in any type of active program. The remaining 80% of patients will be capable of participating in the programs developed for them. It should be recognized that the majority of the patients will require assistance in getting to the main lounge (BCHP EC Design Guidelines 1988). Therefore, it is important to encourage residents to get up, get dressed and proceed into the lounge activity area each day. The more approachable the lounge area the more frequently it will be used. This area should act as a substitute living room of a normal family house. It should provide a normal, inviting ambience which will appeal to residents.

There are several critical issues in designing such space. Although the main therapeutic services will be available in the Core Centre it will also be necessary to provide a supplementary space in the cluster's lounges. This space will be used not only as a leisure/dining space but also as Physical Exercise and Occupational Therapy Area for a very small group of residents (basically for those who don't like to mingle with the rest of the EC community).

Issue #3 Home like environment

Critical design issues for creating a home-like environment in the residential clusters:

1. Scale of the cluster

The way space is enclosed, its size and shape, the height of

the room, plays an important part in creating a home-like environment in the EC facility. Scale can give a facility a residential or institutional atmosphere. Proper scale in the residential cluster can be achieved by:

a. providing the lounge/dining area divided into functional alcoves for various activities.

b. the space will have variety of ceiling heights by providing sky lights in the lounge/dining area and lower ceiling in the rest, part of the cluster.

c. the size and shape of furniture, equipment, railings, electrical switches and other details will be designed in accordance with the elderly's antropometrics.

2. Proximity to living units

All living units will have direct access to the lounge/dining area.

3. Connection with the outdoor activities

All living units will have direct access to private outdoor space. The lounge/dining area will have connection to the shared outdoor space.

Issue #4 Resident Living Unit.

Critical design issues in the resident unit:

1. privacy in two and four bed rooms (setting up one's territory). All two and four bed rooms will be designed to provide one's resident territory by biaxal ownership arrangement.

2. view from the bed: windows and ceiling become important

space elements of bedridden resident's environment. Windows in the residents' rooms will have a sill height which will allow a view through the window to the outside world (see private outdoor space). Ceilings will be enhanced by providing stimulating interior design features such as paintings or sculptured suspended ceilings.

5.3.3 Private outdoor spaces in the Dependent Living - Long Term Care Facility

At the time of writing this thesis there is no specific legislation in British Columbia nor any guidelines, which specifically determine the landscape requirements for each level of care. There is basic information and common requirments in the Community Care Facility Act, Extended Care Design Guidelines and CMHC Design Guidelines in terms of variety of outdoor spaces, privacy and some physical conditions. However, there is relatively little information regarding specific approaches to the design for elderly residents in the higher levels of dependency.

In the analysis of outdoor spaces in the case studies of three different levels of care (Appx. #5-2) I found that only Parkwood Manor, congregate housing in Coquitlam, B.C. provides dwelling units with private balconies or patios. In the Intermediate Care facility in Hollyburn House and in the University Hospital, UBC Site Extended Care Unit there is no direct access from individual sleeping units to open outdoor spaces. Although all Intermediate Care units in Hollyburn House

are located on the ground floor level the only access to the shared patio is through the exit of the facility. The UBC Site Extended Care Unit is a six storey building without any private balconies. The only small (too small for all residents) outdoor patio is adjacent to the common spaces on the ground floor level and not easily accessible to the residents. Therefore, this patio is underutilized.

The nursing home in the Motion Picture Country House in Woodland Hills California is an interesting example of a new approach to the design of outdoor private spaces in a long-term care facility at the extended care level. The clustering of four patient rooms around an interior vestibule creates a geometry that accommodates shared balconies linked to each unit (see Fig. 5-10). While having private rooms the residents have an opportunity for social interaction in an adjacent semi-private outdoor space.

Since elderly people in Long Term Care facilities are less mobile, direct access from their sleeping units to the outdoor spaces as well as views from their unit will keep them in touch with the outside world.

In the CCC long term residential clusters all sleeping units will have direct access to the outdoor spaces. A planting area outside each unit will define personal territory and minimize chance for privacy invasion. However, all residents will share also common outdoor space, which may be claimed by several residents. These arrangement will give the residents a choice

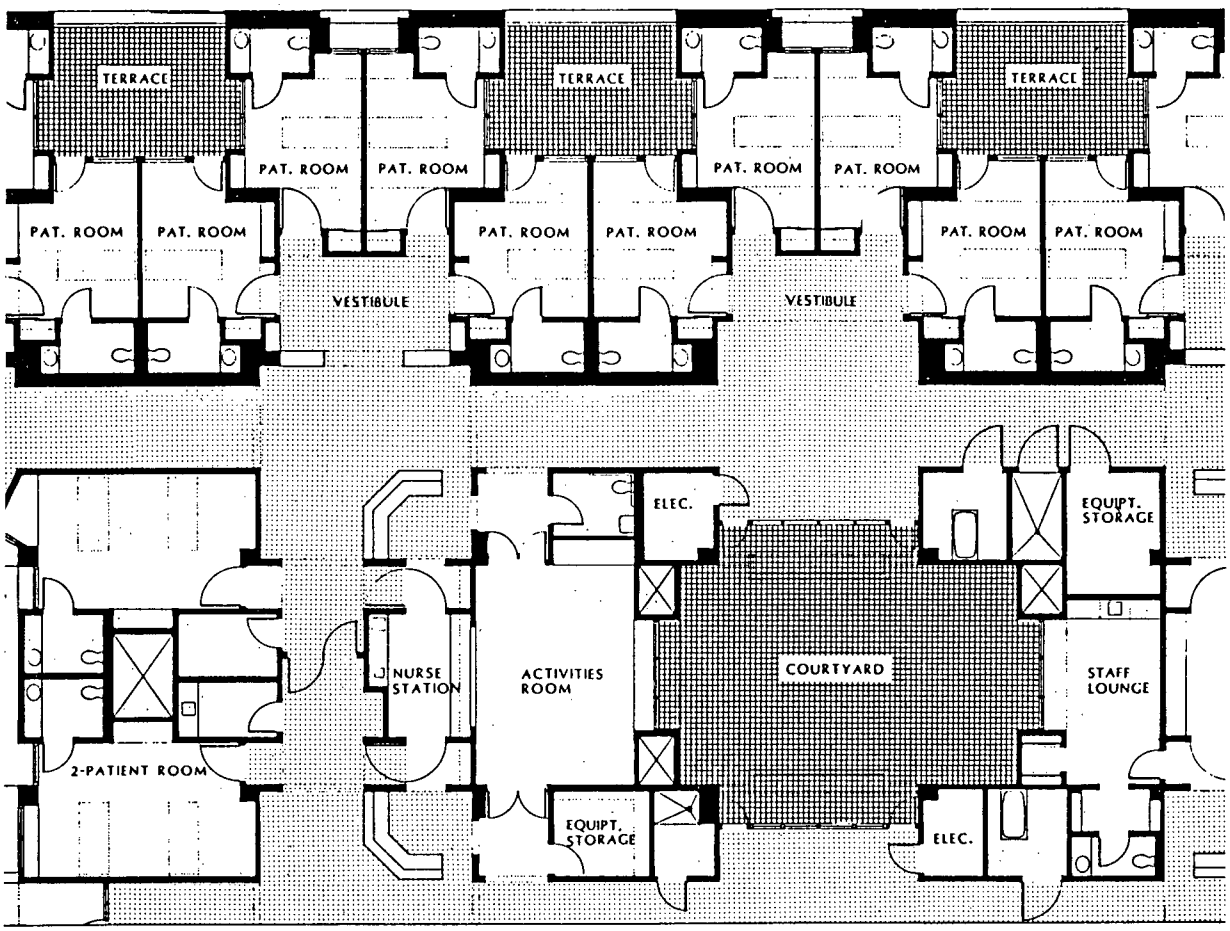


Fig. 5-10 Private Outdoor Spaces in Nursing Home
Source: Bobrow/Thomas Architects, Motion Picture Country House Woodland, California.

to be in private territory, or have an opportunity to meet other residents and to watch an activity in the nearest common open areas.

For those who are unable to go outside views of attractive outdoor spaces will be especially important (Koncelik 1976). Views from the windows are important ways for residents to feel connected with the rest of the world. Attractive views provide relief and pleasure. There is evidence in research (Reizenstein Carpman et al. 1986) that pleasant views can increase the resident's sense of well-being and decrease recovery time and need for pain-relief medication.

> Outdoor views remind the elderly of the season, time of a day and weather. These are important "reality cues" for long-term, critically ill residents (Reizenstein Carpman et al. 1986, p. 211).

The flow of time is the most basic and continuous of natural phenomena. The repetitive rhythm of dawn, daytime, evening, sunset and night has marked therapeutical value. Confined to bed a resident can lose this rhythm of moving on, of progressing. Therefore, it should be essential in the new development to provide trees and plants which bring out this rhythm through the effect of changing shadows, and colours in the various seasons of the year.

Therefore, the CCC open spaces will be visually stimulating with a view of activity in the surrounding areas. All sleeping units will have window sill heights which allow bedridden residents see out the window easily.

Table 5-5.--Extended Care Cluster
Space Program

Component	Q-ty	Unit Net Area	Total Net Area	Remarks:
Cluster Type I				
Total number of residents: 12				
1 - Bedroom	8	18 m2	144 m2	
4 - Bedroom	1	47 m2	47 m2	
Lounge/dining	1	48 m2	48 m2	4 m2 per bed
Satellite kitchen	1	10 m2	10 m2	
Bathing facilities	1	26 m2	26 m2	3 bath fix.
Soiled utility	1	11 m2	11 m2	
Total:			286 m2	
Total number of clusters: 2			572 m2	
Cluster Type II				
Total number of residents: 12				
1 Bedroom	8	18 m2	144 m2	
2 Bedroom	2	30 m2	60 m2	
Lounge/dining	1	48 m2	48 m2	
Satellite Kitchen	1	10 m2	10 m2	
Bathing facilities	1	26 m2	26 m2	3 bath fix.
Soiled utility	1	11 m2	11 m2	
Total:			299 m2	
Cluster Support				
Nurses station: Control, Clean utility & Medicine prep., Head N. Office, Staff'washroom	1	38 m2	38 m2	
Medit.Rm/Chapel	1	30 m2	30 m2	
Linen Supply	1	14 m2	14 m2	
Janitor Rm	1	6 m2	6 m2	
Resid. Laundry	1	6 m2	6 m2	
W.chair Store	1	22 m2	22 m2	
Total:			112 m2	

Table 5-5.--Extended Care Cluster (Cont'd)
Space Program

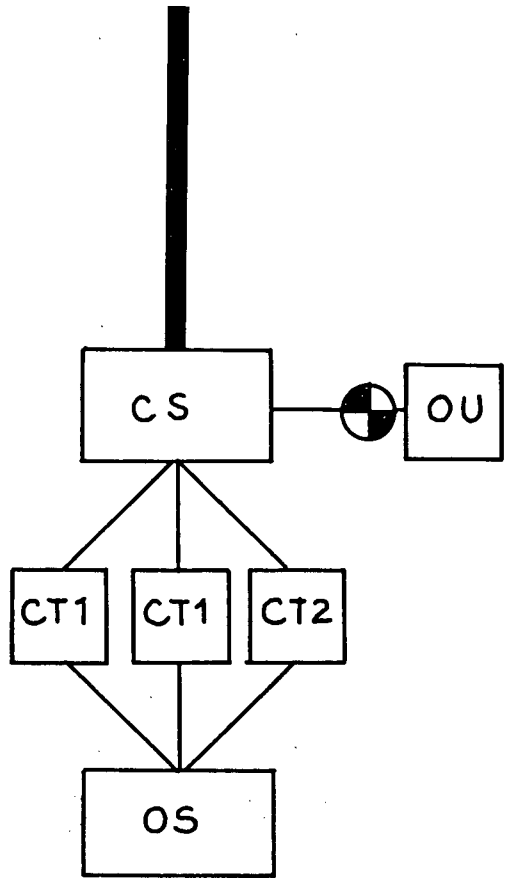
Component	Q-ty	Unit Net Area	Total Net Area	Remarks:
Observation Unit for 6 beds				
1 Bedroom	4	18 m2	72 m2	
2 Bedroom	1	30 m2	30 m2	
Lounge/Dining	1	24 m2	24 m2	
Linen Supply	1	10 m2	10 m2	
Soiled Utility	1	11 m2	11 m2	
Bathing facility	1	23 m2	23 m2	2 fix.
Storage	1	10 m2	10 m2	
Total:			180 m2	
Grand Total:			1,153 m2	
Gross Area: 36 m2 x 42 beds =			1,512 m2	

References:

BCHP. Extended Care Design Guidelines. 1988.

CJP Architects Calberg Jackson Partners. St. Vincent's Extended Care Hospital - Space Program. 1987.

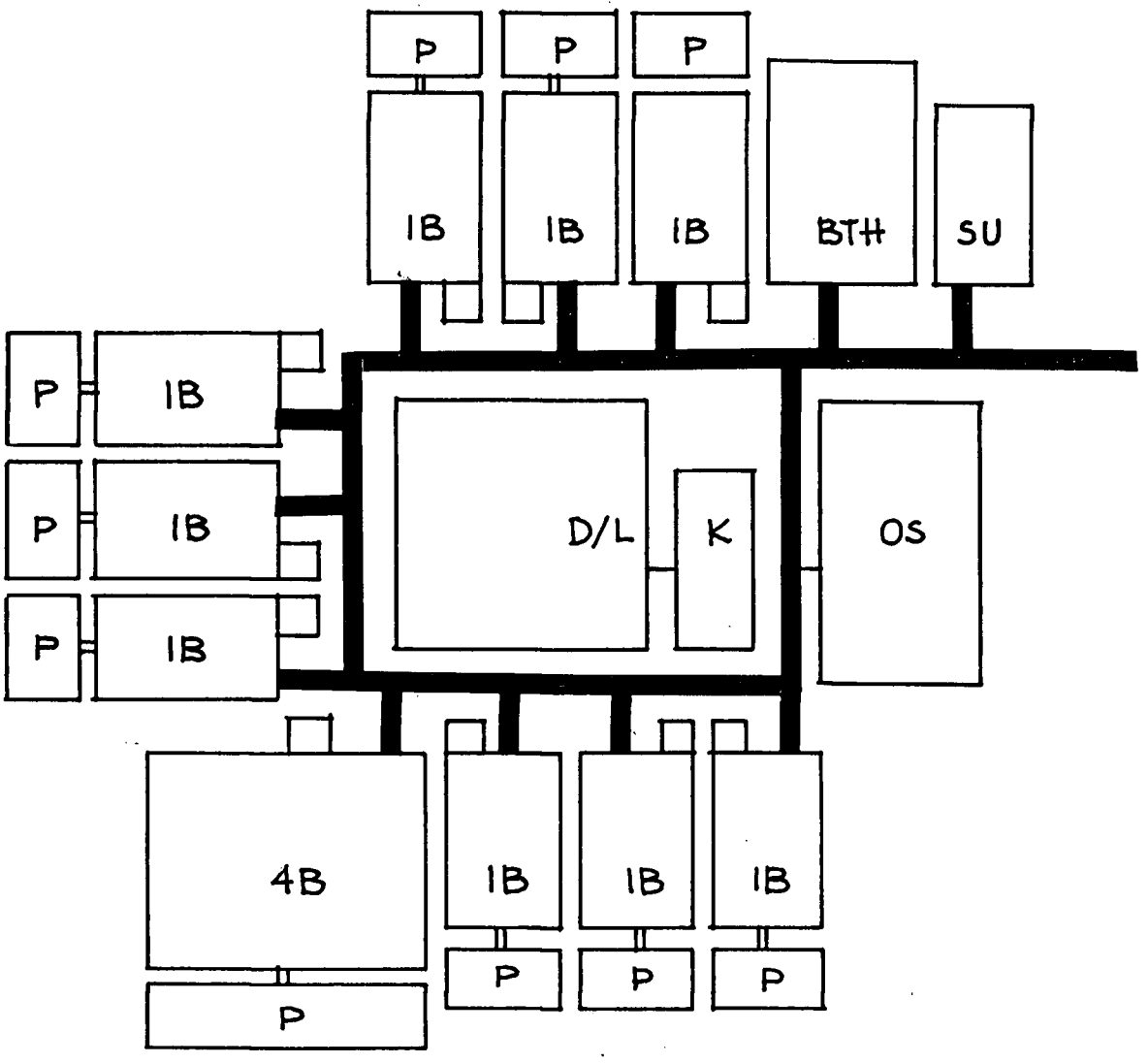
Gardiner Thornton Partnership. St. Michael's Centre - Functional and Space Program. 1977.



LEGEND:

CS	CLUSTER SUPPORT
CT1	CLUSTER TYPE 1
CT2	CLUSTER TYPE 2
OS	OUTDOOR SPACES
OU	OBSERVATION UNIT
	SECURITY CONTROL

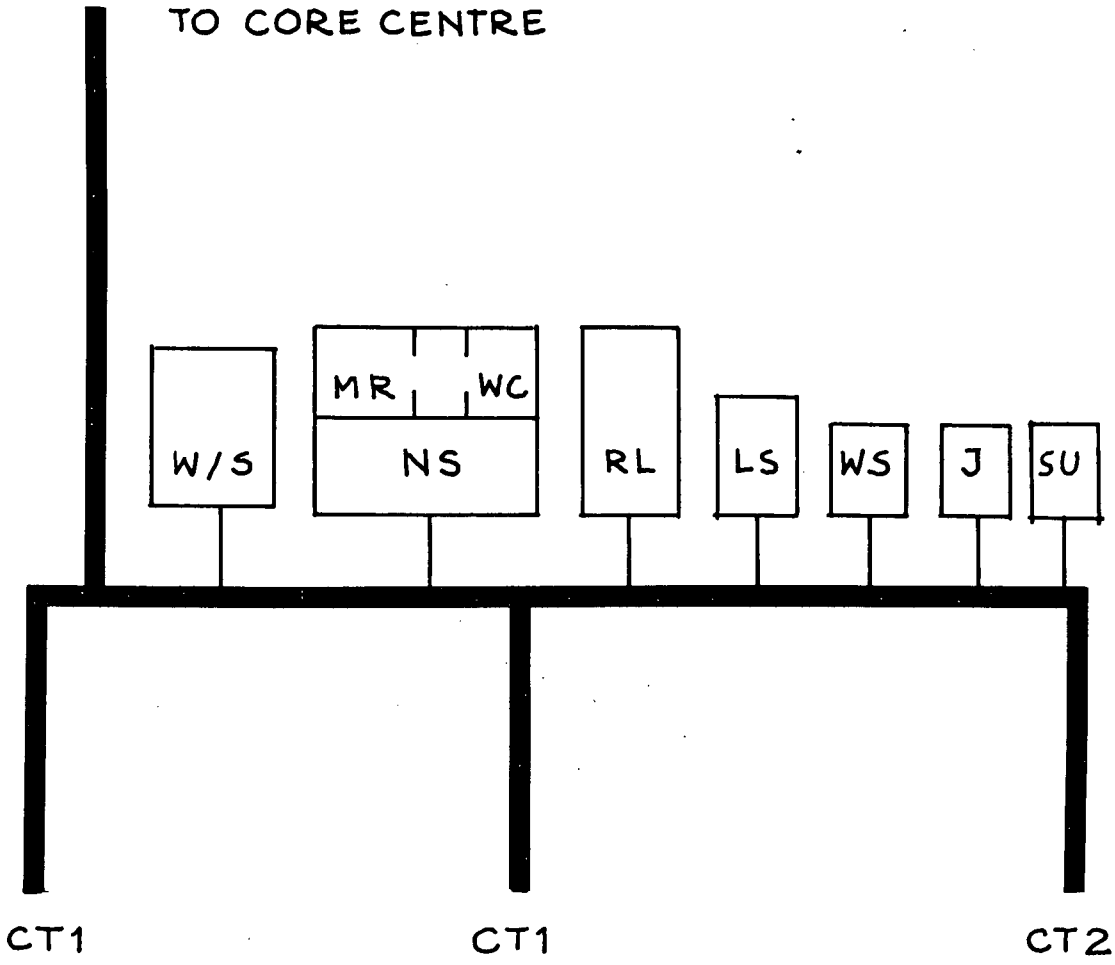
Fig. 5-11 Extended Care Facility



LEGEND:

1B	1 BEDROOM
4B	4 BEDROOM
D/L	DINING/LIVING
K	S.KITCHEN/SERVING
BTH	BATHING ROOM
SU	SOILED UTILITY
P	PATIO
OS	OUTDOOR SPACES

Fig. 5-12 Extended Care Cluster Type 1



LEGEND:

CT1	CLUSTER TYPE 1
CT2	CLUSTER TYPE 2
W/S	WHEELCHAIR STORAGE
NS	NURSE STATION
MR	MEDICATION ROOM
WC	STAFF WASHROOM
RL	RESIDENTS' LAUNDRY
LS	LINEN STORAGE
WS	WHEELCHAIR SHOWER
J	JANITOR ROOM
SU	SOILED UTILITY

Fig. 5-13 Extended Care Cluster Support

5.4 CORE CENTRE

In keeping with the objectives of the CCC, the Core Centre will provide services for the residents of the facility and to some extent for the elderly from the Community of the West Point Grey area.

The Core Centre will be comprised of 15 major functional components and each of them will include several activity centres. There will be two types of components:

1. Components serving the CCC facility only e.g.: Material Services, Maintenance Services, Plant Services, Staff Support and Laundry;
2. Components which will serve the residents of the CCC and the entire community: Rehabilitation Centre, Clinic, Pharmacy, Administration, Main Concourse, Food Services, Food Fair, Arts and Crafts, Library, Auditorium and Indoor Recreation Programs;

The Core Centre will require large open spaces for a variety of group activities. There will have to be also ample grounds around the building for important supplementary functions like: parking, service & delivery and recreation.

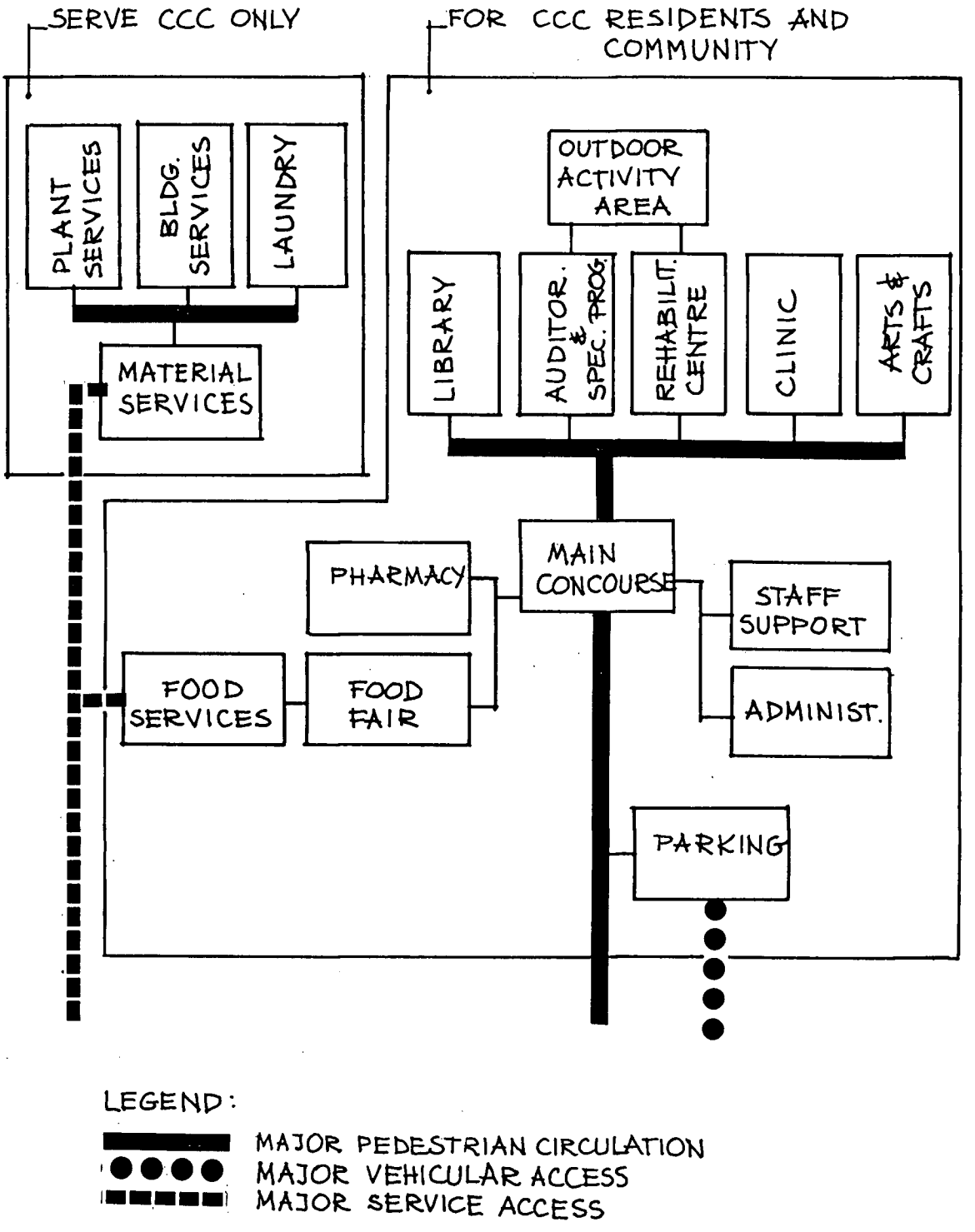


Fig. 5-14 Core Centre

5.4.1. MAIN CONCOURSE

> A complex of buildings with no center is like a man without a head.
> Alexander, A Pattern Language

1) Purpose

One of the major functional components of the Core Centre will be the Main Concourse, which will create a central forum (Public Place) for the facility. There older people may come to meet each other, to chat with close friend or casually talk with new acquaitances in an attractive, comfortable setting. It will also be a place for basic commercial services.

2) Functional Description

a. Winter Garden - Conservatory

The landscape may be brought inside the building so that it can be enjoyed during the winter months and during the time of bad weather (Gruffydd 1967). Although it may be very costly to build a landscaped interior atrium, it would be worthwhile to compare the benefits it brings for residents in terms of their human needs, against the initial capital cost. The institutional feeling would be decreased, because the plants provide a "home like" atmoshpere. Bringing nature indoors may hold similar psychological benefits to accessing nature outdoors. Plants are soothing and restful, especially flowering ones. They represent life, hope and growth. Therefore, a green interi

or may become a key element in the environment for the elderly.

In the Core Centre, in the heart of the Main Concourse, the Conservatory will be one of the most attractive components. During many rainy days in Vancouver, there will be a cheerful, pleasant atmosphere created by plenty of plants, (some of the existing beautiful trees can be incorporated within this place), water feature and live fish and birds. Especially a live fauna will play a significant role in this environment.

Recent studies have shown that the bond with animal companions is stronger and more profound at older age (Bustad 1983; Savishinsky 1985). Therefore, in many facilities for the elderly a new program called "Pet Therapy" has been introduced. This program has confirmed the positive effects of pets therapy on the elderly's mental and physical health. Although in the CCC Conservatory only birds and fish are planned they will nevertheless provide strong visual stimulation and opportunities to start a conversation with another observer. Loneliness is a problem for many older people. Nonverbal communication can decrease the elderly's sensory deprivation. The idea of creating the winter garden in the Core Centre was not only to provide green area inside the facility to enjoy it during the rain, but also to create a "friendly environment" with as much as possible opportunities for social interaction.

b. Mail Boxes

The Main Concourse, being located on a busy circulation route, right in the heart of the facility, will be an ideal

location for the Mail Boxes for facility residents. It will be a daily destination for almost every habitant.

c. Commercial Components

Commercial components such as Beauty and Hair Salon, Royal Bank Annex for example and General Store will create an environment of "an action taking place" as well as will enhance business integration with the Point Grey Community.

d. Seniors' Day Care

For Seniors living in the neighbourhood, the Main Concourse will provide a Seniors' Day Care Centre with easy access to Dining areas, Food Fair component, special programs, Rehabilitation Centre, Clinic and outdoor activities areas.

Table 5-6.--Main Concourse
Space Program

COMPONENTS:	NET AREA	REMARKS:
1. Main Entrance	10.0 m2	
2. Coat Room	26.0 m2	
3. Conservatory	100.0 m2	
4. Arts Exibition	30.0 m2	
5. Bank	20.0 m2	
6. Beauty Salon	26.0 m2	4 chairs, 3 sinks with counters, hair dryers.
7. Day Care	60.0 m2	for participants who require rest period during the day
8. Washrooms M&F&Hand'd	40.0 m2	
9. Storage/Maintenance	6.0 m2	
10. Mail Boxes Rm for EC,IC,RC	12.0 m2	for 152 residents
11. General Store: 24 Hrs	20.0 m2	"Max" or "7&11"
TOTAL:	350.0 m2	
GROSS AREA: 350 x 1.3 =	455.0 m2	

References:

APRA. Facilities Program for the George Derby Long Term Care Society. 1982, p.G41.

Gardiner Thornton Partnership. St. Michael's Centre Functional and Space Program. 1975, p.8.1.

Northwood Multi-Purpose Centre, Physical Facilities Data List.

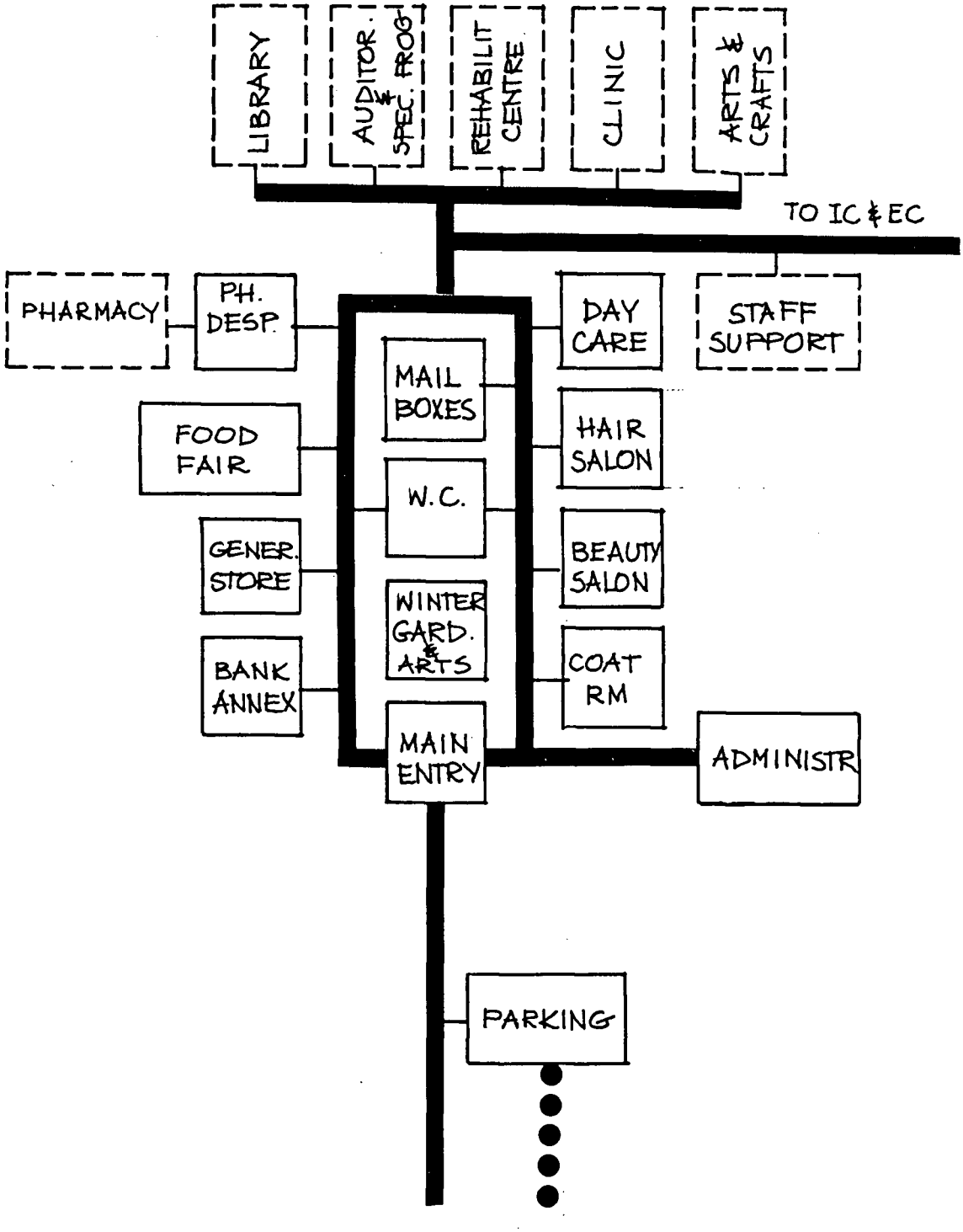


Fig. 5-15 Main Concourse

5.4.2. FOOD FAIR - DINING

> Without communal eating, no human group can hold together.
>
> Alexander, A Pattern Language

Purpose

In keeping with the objectives of creating an informal community network of friends and relatives, the CCC Food Fair component will become an attractive and useful place for the elderly.

Four principal components make up the scheduled group activity programs at most Senior Centres: dining, special programs, meeting/classes and arts/crafts. The Dining component provides opportunities to meet new people and to share pleasant experience. Lunch often becomes one of the major programs of the day, with other activities scheduled around it. It can be a festive occasion so the dining area should reflect its importance. (Jordan 1978, pp.62-63).

While most Centres confine their dining activities to a regular luncheon program, in the case of the CCC Food Fair breakfasts, dinners and even snacks will also be available. Annual banquets and special holiday dinners, such as Thanksgiving or Christmas, may bring a large turnout of participants. Such meals are often served banquet-style and need a room large enough to hold all of the participants. Monthly meetings of a civic group or the CCC Board of Directors may be held there including a luncheon or dinner.

For the purpose of this thesis I assume that up to 50% (100) of residents in the Independent Living Clusters and their occasional guests will be interested in the Food Services. Beside that number, there will also be Day Care participants and visitors from the community. According to a study conducted by professor Francis Carp on life satisfaction of Victoria Plaza residents (high-rise seniors apartment building in San Antonio, Texas with Senior Centre on the ground floor), 83 per cent of respondents "strongly and persuasively desired" inclusion of some place they could buy meals at reasonable cost.

> The most common improvement suggested for the Senior Centre was addition of cafeteria, coffee shop or cafe. The provision of a place to buy meals was suggested by 49 per cent of respondents while addition of food services was recommended by about 90 per cent (Carp 1987, p.74).

2) Functional Description

The Food Fair will be located in the Core Centre area close to the Food Services component and adjacent to the Main Concourse. There will be easy access from the visitors parking since it will be a destination for people from the Point Grey neighbourhood. In most seniors' facilities there is a problem of a premeal linup. For the CCC residents and their guests who may come before the doors of the restaurant are open, there will be plenty of room within the Main Plaza Conservatory for waiting.

a. Restaurant

The Food Fair will include a restaurant with waitress services. A study of Seton Villa residents preferences (Gutman 1983, p.141) showed that about half (55.6 per cent) expressed a clear preference for waitress service, while 33.3 per cent chose cafeteria self-service and 11.1 per cent chose cafeteria with tray service.

The restaurant will accommodate 125 guests in a comfortable environment for dining. Table spacing will be generous enough to avoid crowding (1.5 m2 to 1.6 m2 per person). There will be wide gangways to accommodate wheel-chairs. A variety of seating arrangements, which will permit groupings of two, four, six or more at a table will create privacy, encourage interaction or even provide anonymity for those who prefer isolation. Some dining tables will be rectangular; others round and will include tables accessible to wheelchair users. For larger groups, there will be banquet tables in the alcoves. On the tables, there will be colourful linen cloths and fresh flowers. A pleasant, cheerful ambience in the restaurant will also be created by having a bright colour and pictures on the walls. The restaurant will have large windows for diners to see the outside while they are eating. During good weather, there will be an opportunity to eat outdoor on the terrace and enjoy a view at the outdoor activities.

b. Coffee-shop

For those who like to drop in just for a cup of coffee or

tea, there will be an adjacent coffee-shop with 30 seats overlooking the main activities within the Main Concourse. People will have an opportunity to "sit still, relax, be on view and watch the world go by". This place may help to increase the identity of a community. It will be one of the places where newcomer to the CCC may start meeting the people who have been there many years.

c. Bar/Pub

The Bar/Pub will provide yet another opportunity for the CCC elderly, as well as, visitors from the community to be in a public place and to find companionship. The 14 seat Pub will provide seating for four to six people in a set in open alcoves overlooking activities in the central plaza.

Table 5-7.--Food Fair
Space Program:

	COMPONENTS	NET AREA	REMARKS:
1.	Restaurant: 125 seats	200 m2	min. 1.5 m2 per seat
2.	Service area	35 m2	
3.	Cafe-shop: 30 seats	30 m2	min. 0.75 m2 per seat
4.	Service area	10 m2	
5.	Pub: 14 seats	24 m2	
TOTAL		299 m2	

Parking requirements: A minimum of one space for the first 111 m2 and one extra for each additional 37 m2 of gross floor area (City of Vancouver Parking BY-law,1987).

Thus, 18 spaces. However, most of the seniors will walk to the CCC therefore we can reduce it to 5 spaces = 25% of clients may drive.

References:

De Chiara, J and Callander, J. Time-Saver Standards for Building Types. 1980.

Jordan, Joe. Senior Centre Design. 1978, p.62.

Northwood Multi-Purpose Centre, Physical Facilities Data.

5.4.3. FOOD SERVICES FACILITY

Objectives

The objective of the Food Services facility will be to prepare wholesome appetizing food. Residents will be provided with safe, nutritious and attractive food which will accommodate special diets (e.g.: salt free; sugar free; low cholesterol).

General Concept

One central kitchen will serve the whole CCC. In terms of technical requirements it will be necessary in the Design Stage to consult Food Services and Dietary Specialists in order to establish exact space and equipment needs.

	Feeding Requirements:	Number of Residents:	
1	Extended Care Residents	42	36 + 6
2.	Intermediate Care	90	
3.	Day Care	20	
4.	Respite Care	10	
5.	Visitors, Independent Liv.	150	flexible
6.	Staff & volunteers	80	flexible
	TOTAL approximately	392	

...and also:

7. Therapeutic diets as needed by the Extended and Intermediate Care residents
8. Dietary counselling as required for those on therapeutic diets, such as diabetics, plus general nutritional counselling for the residents, day care clients and visitors.

Functional Description

The Kitchen building will consist of one central preparation area which will serve the Intermediate and Extended Care facilities and the Food Fair in the Core Centre area. Meals will be served at satellite dining areas in the E.C and I.C. and in the restaurant within the Food Fair.

Receiving, Storage, Preparation

Goods will be received at the receiving platform and stored in the day stores, freezers, coolers, and if required in the central store room. Soups, entrees, vegetables, salads, baked goods, desserts will be prepared in the production area of the kitchen for dispatching to the satellite serveries in food carts or directly to the restaurant servery or coffee-shop (desserts and baked goods). After meals, containers, dishes and utensils will be returned to the kitchen area for cleaning and holding before being returned to the satellite areas.

Intermediate Care Dining

In the cluster, lounge/dining areas tables will be prepared with china, silverware, linen cloths and fresh flowers. Meals will be delivered by food carts and served from steam tables in the satellite servery/kitchen. Dishes will be collected into soiled dish carts and washed in dishwashers in the central kitchen, and then returned to the Tray Preparation/Cart Loading area.

There will be an emergency night nourishment service for residents in one of the satellite kitchens. The dining area will

be of sufficient size to accommodate 6 wheel-chair residents at the same time.

Extended Care Dining

Patients will be fed in the cluster lounge/dining areas similar to the I.C. or by using individual trays for bedside feeding where required.

Respite Care

As in the I.C. and E.C. facilities.

Staff Meals

Meals for staff will be served in the area adjacent to the central kitchen on a self-serve basis, but with staff on duty.

Day Care

Since the Day Care component belongs to the Main Concourse and will be located close to the Food Fair, dining for Day Care will take place in the Restaurant's specially allocated alcoves.

Table 5-8.--Food Services Facility
Space Program

	COMPONENTS	NET AREA	REMARKS:
1.	Manager Office	11.0 m2	
2.	Dietician, Clerk Office	9.5 m2	
3.	Staff Changing Rms F&M	12.0 m2	1 m2/person
4.	Staff Lounge/Dining	50.0 m2	E.C. and I.C.
5.	Preparation	25.0 m2	
6.	Production	134.0 m2	
7.	Tray Prep/Cart Loading	44.5 m2	
8.	Dishwashing	30.0 m2	
9.	Pot Washing	6.0 m2	
10.	Cart Washing	4.5 m2	
11.	Cart Storage	19.0 m2	
12.	Waste	2.0 m2	
13.	Cooling Storage	46.0 m2	
14.	Freezer Storage	46.0 m2	
15.	Dry Storage	25.0 m2	
16.	Day Storage	9.0 m2	
	TOTAL	473.5 m2	

Comparison:

BCHP Extended Care Design Guidelines	- for 75 beds:	140 m2
St. Michael's Centre	- for 120 people:	168 m2
George Derby L.Term Care	- for 300 people:	412 m2
Jordan, Senior Centre Design	- 500 meals a day:	198 m2

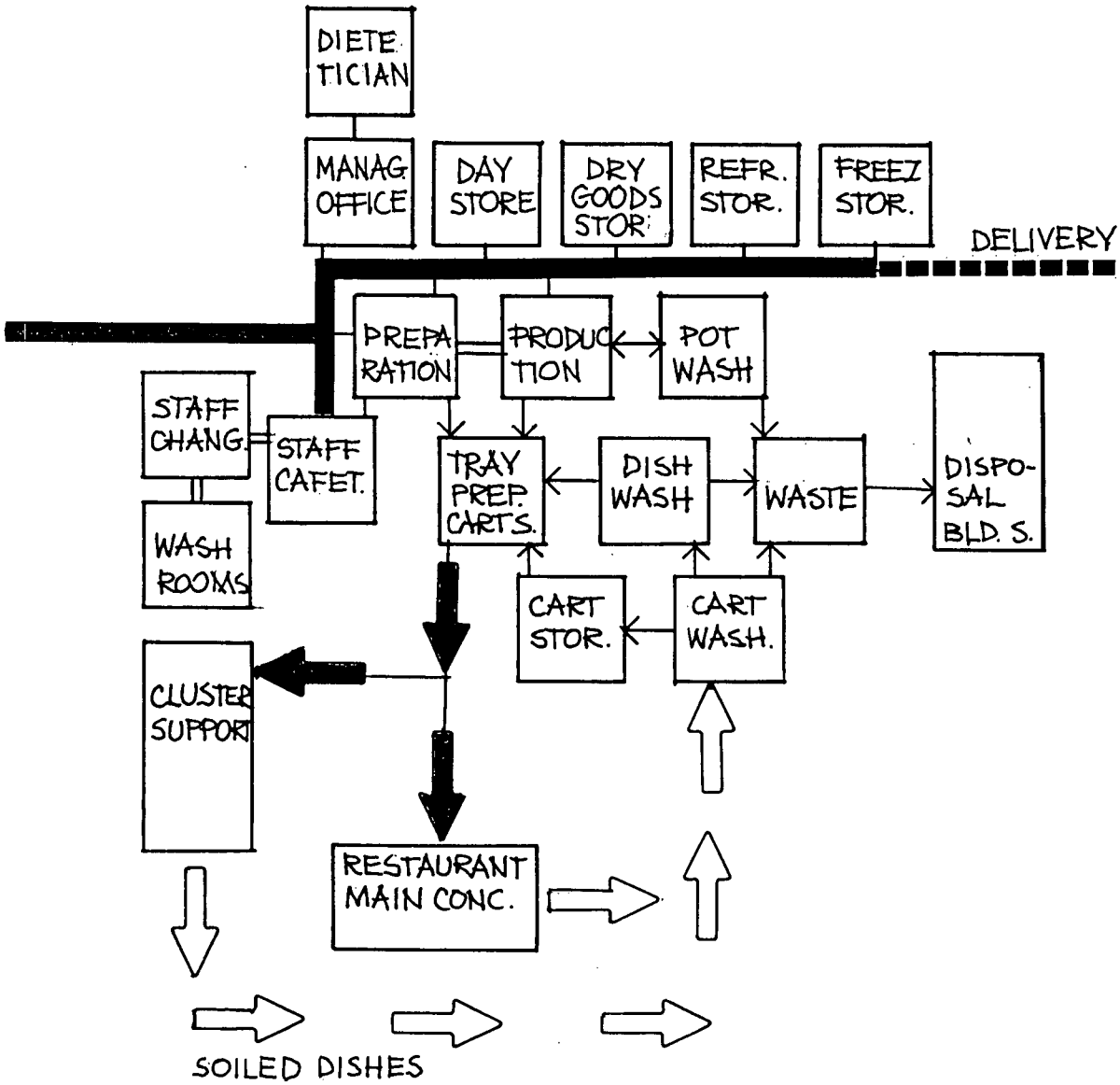


Fig. 5-16 Food Services

5.4.4. REHABILITATION CENTRE

1) Purpose

One of the most attractive and unique features of the CCC will be the Rehabilitation Centre. This Centre will consist of centralized facilities for rehabilitation services which are not offered at the Cluster Support level. It will serve both the residents of the CCC and residents of the Point Grey neighbourhood. This Centre will operate within the Core Centre health services programs. However, it may be simply used as a recreational area without any special medical supervision.

2) Functional Description

The Rehabilitation Centre will be linked with the Clinic and Main Concourse of the Core Centre. There is also an easy access for the residents of the IC and EC facilities. The Centre will be connected with outdoor activities areas (bowling, mini-golf, croquet and others).

a. Swimming Pool Facilities

The main feature of this Centre will be a swimming pool with an adjacent sauna. The swimming pool will be planned as a bright area with a major skylight, evergreen plants inside and colorful comfortable "beach" furniture. Large wall-windows with a view to the outside will pleasantly link the outdoor and the indoor environments and give many an opportunity to watch people walking around, while enjoying the warm water. The swimming pool will be shaped purposely to allow the elderly to move slowly

from shallow to deeper zones. Even person using a wheel-chair will be able to enter the pool without special assistance. There will be no diving boards which may create hazards. Underwater lighting will improve the ambience of the pool and will encourage the timid to actively participate. Close to the pool, there will be a whirpool with adjacent "Bar" which will serve non- alcoholic drinks. Within the same facilities, one can go to a sauna or gymnasium or even go outside to exercise and take the fresh air.

b. Fitness and Dancing Club

The Fitness and Dancing Club will provide physical exercises and therapy for the residents and visitors. The Club will be linked with outdoor activity areas to promote fitness activities during sunny days. The residents will come here for part of their daily program which may be expanded by physiotherapy in the Centre's Treatment Area. However, for the more active elderly dancing will be especially popular. "While ballroom dancing is often the favorite, square dancing and folk dancing also have their fans" (Jordan 1978). The Changing Rooms will serve both the swimming pool facilities and Fitness Club. An Office for the administrative work related to the activity programs will accommodate spaces for the therapists and program workers. It will have visual access to the treatment area.

c. The Treatment Unit

The Treatment Unit, provides physiotherapy and speech pathology treatment for the residents and the Day Care clients.

Wheel-chair accessible washroom will be located adjacent to this area. Occupational therapy for more fragile residents of the IC and EC facilities will be provided in their respected lounges, while for more active residents and visitors the Core Centre programs and services (e.g.: Arts and Crafts, games, library) will be available.

Table 5-9.--Rehabilitation Centre
Space Program

	COMPONENTS	NET AREA	REMARKS:
1.	Physiotherapy	30.0 m2	6 stations
2.	Washroom	2.8 m2	
3.	Office	14.0 m2	
4.	Fitness and Dancing	60.0 m2	Ballroom
5.	Changing Room F	40.0 m2	
6.	Changing Room M	40.0 m2	
7.	Swimming Pool 12.5 x 25 =	312.5 m2	+ pool-surround
	2.5 x 12.5 + 3.0 m x 25 =	106.2 m2	
8.	Equipment Storage	10.0 m2	
9.	Sauna	17.0 m2	
10.	Gymnasium	20.0 m2	
11.	Staff Room	10.0 m2	
	TOTAL	662.5 m2	

Parking requirements: A minimum of one space for each 18.6 m2 of Gross Floor Area (City of Vancouver, Parking BY-law, 1987).
36 parking spaces x 26.5 m2 = 954.0 m2

References:

De Chiara, J. and Callender, J. Time-Saver Standards for Building Types. 1980.

APRA. Facilities Program for the George Derby Long Term Care Society. 1982, p.G58-63.

Patric, Thomas. Selected Rehabilitation Facilities in the United States. 1971, p.53.

CMHC. Nursing Home and Hostels with Care Services for the Elderly Design Guidelines. 1979.

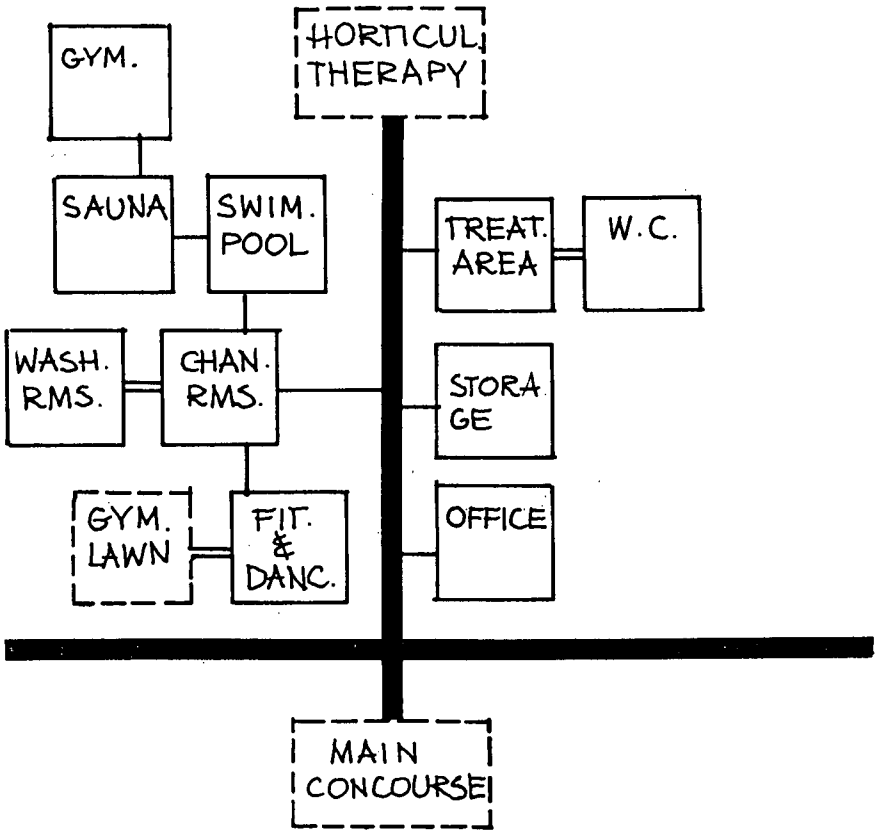


Fig. 5-17 Rehabilitation Centre

5.4.5. ARTS AND CRAFTS

1) Purpose

A need of some older people for personal expression may be satisfied by a variety of programs in the Arts and Crafts Rooms. Faced with the reality of declining physical strength, loss of job, income and perhaps death of a spouse or friends, many older people turn to new pursuits in order to reinforce their self-image. Arts and Crafts programs give their participants a chance to engage in a group effort, develop creativity, cooperate and compete with others.

2) Functional Description

The CCC Arts and Crafts activities will be included in the adult education programs in the Core Centre. Those programs will be offered on a regular basis. Thus, residents and visitors will be able to spend a great deal of time in an environment that is supportive and rewarding. Classes will tend to range from 10 to 25 participants, therefore all rooms will be sizeable, bright and cheerful. Crafts rooms will be grouped together to provide flexibility in case of changing class sizes and different craft uses. This particular program component will be located aside to protect the rest of the Core Centre from noise, or dust which may be generated by crafts rooms. The rooms will be workshops rather than showplaces. However, there will be a visual connection with the hallway in the Main Concourse.

This feature will allow potential participants to observe others at work until they decide to take part themselves. Finished works of the participants will be exibited in the main plaza - Arts Exibition area.

The Arts and Crafts area consists of six rooms: woodwork, dyeing, weaving, pottery, work tables that include needlework, creative arts and handcrafts, as well as, painting/sketching. However, some of the rooms can be converted to other crafts such as photography, ceramics or china painting. Materials and equipment will be stored on open shelves, in an adjacent storage room, to provide accessibility.

Table 5-10.--Arts and Crafts
Space Program

	COMPONENTS	UNIT AREA m2	REMARKS:
1.	Office	10.0 m2	
2.	Staff Washroom & Chg. rm.	12.5 m2	
3.	Dyeing	35.0 m2	
4.	Weaving	40.0 m2	
5.	Pottery	50.0 m2	
6.	Worktables	40.0 m2	
7.	Woodwork	30.0 m2	
8.	Painting & Sketching	30.0 m2	
9.	Storage	34.0 m2	
	TOTAL:	281.5 m2	
	GROSS AREA: 281.5 x 1.4 =	393.0 m2	

References:

Jordan, Joe. Senior Centre Design. 1978, p.64.

APRA. Facilities Program for the George Derby Long Term Care Society. 1982, p. G75-87.

Northwood Multi-Purpose Centre, Physical Facilities Data.

Seton Villa, Multi-level Care Facility in Burnaby, B.C.

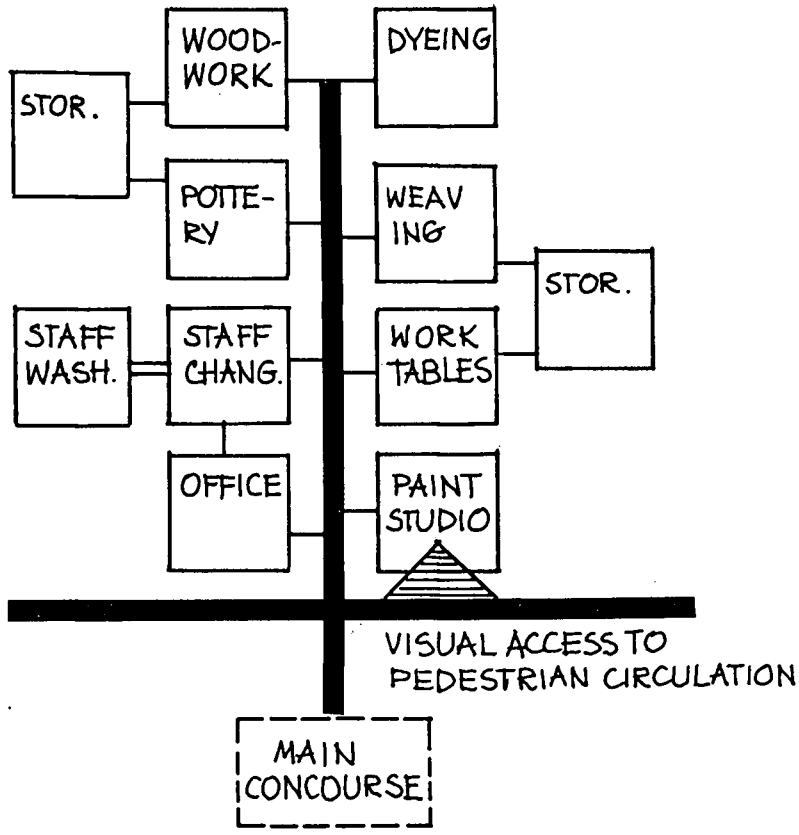


Fig. 5-18 Arts and Crafts

5.4.6. AUDITORIUM AND SPECIAL PROGRAMS

1) Purpose

The Auditorium with Special Programs will provide education, information and entertainment to all users of the CCC facility. This embraces a diverse group of audience-related activities, including lectures, movies, concerts, and programs for group activities such as bridge classes, card parties, bingo and others. Classes and meetings will provide adult education and will develop diverse interests and preferences, for example: Poetry writing, Sing-a-long, Choral group, Typing, Local History, Greenhouse workshop and many others.

2) Functional Description

The Auditorium will be located in the Core Centre with an easy access from the Main Concourse. The principal component will be the Assembly Hall which will accommodate approximately 200 people. This Thesis assumes that there will be frequent participation drawn from the Point Grey community. Therefore, an Auditorium with a stage, back stage and projector booth will be well equipped to create the best environment for seniors in terms of seeing as well as for hearing. Furthermore, the Auditorium will be designed as fully accessible space for wheelchair residents. Here, all activities as listed earlier, will take place. In free time, between the scheduled events, the Auditorium will be used by residents for rehearsals of the instrumental, theatre and choral groups. Close to the Auditorium,

there will be located a number of classrooms with a view and access to outdoor activities. Storage for furniture and equipment will be located conveniently also near that area. Washroom facilities for men and women and a cloak-room will be close in the Main Concourse. The Auditorium will be leased to other organizations as well in order to keep this facility financially feasible. This may be an additional factor in the relationship between the CCC and the business community.

Table 5-11.--Auditorium and Special Programs Space Program

	COMPONENT	NET UNIT AREA m2	REMARKS
1.	Auditorium	224.0 m2	1.12 m2/person
2.	Stage	24.0 m2	
3.	Backstage	32.0 m2	
4.	Storage	30.0 m2	
5.	Projection Booth	6.0 m2	
6.	Classroom	25.0 m2	5-10 persons
7.	Classroom	40.0 m2	10-20 persons
8.	Meeting Rm/Game Rm	60.0 m2	20-40 persons
	TOTAL:	441.0 m2	

References:

Jordan, Joe. Senior Center Design. 1978, p.60.

Burris-Mayer, Harold and E. Cole. Theatres and Auditoriums. 1975.

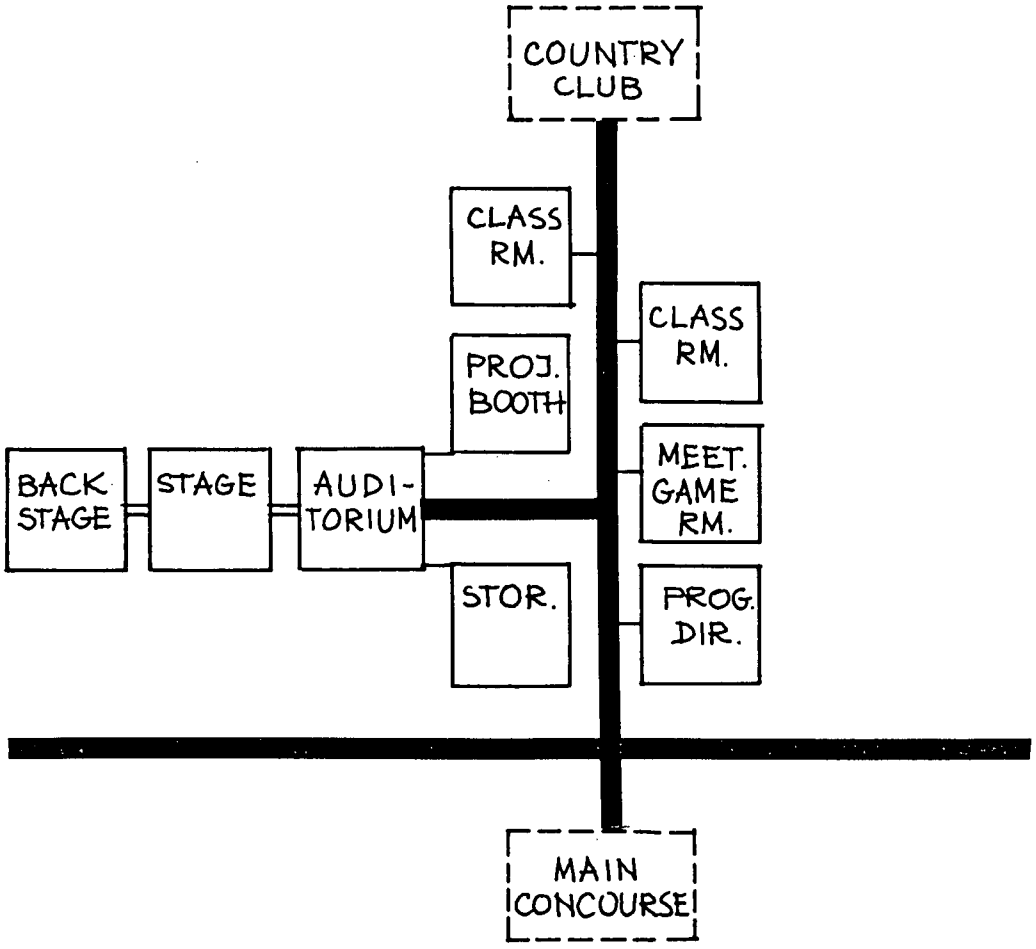


Fig. 5-19 Auditorium and Special Programs

5.4.7. ADMINISTRATION

1. Objectives

The main objective of the Administration Suite is to provide for the overall monitoring and control of the CCC facility. This unit will be responsible for the general supervision of the staff, management of finances, liaison with the public and coordination among all major units of the CCC. The staff will need numerous offices to carry out their duties efficiently. At this stage of the program I assume only general guidelines in terms of the function and quantity.

2) Functional Description

a. Access

The Administrative Suite will be located in the Core Centre, close to the main entrance and adjacent to the Main Concourse. The general administration offices need little contact with the day-to-day activities of the facility, nevertheless direct relationships are necessary for the executives. The Executive Director-Coordinator will need an easy access to the general public and to the senior staff. The Programs Director will need to be close to the hub of all daily activities, staff, participants and volunteers. The Clinic and Rehabilitation Centre Director will have an access to Programs Director and to Clinic. The Director of Home Care and Support will have an access to the Director of the Long Term Facility and Director of Social Programs. The Long Term Care Director will have an easy access

to the Intermediate, Extended and Respite Care facilities. The Food Director will have access to the Food Services and Food Fair units. The Administrative Supervisor will be located close to the General Office and Coordinator. Waiting space will be sufficient enough, with a direct access to the visitors washrooms, and located close to the main entrance.

b. Privacy

The Administrative Suite will be divided into three parts in terms of privacy.

Planned as Private Offices are those of the: Executive Director, Long Term Care Director, Programs Director, Home Care and Support Director, Accountant, Clinic and Rehabilitation Centre Director, Food Services Director.

Planned as Semiprivate Offices are those of the: Administrative Assistant, Program Supervisors, Nutritionist, Bookkeepers, Custodians, Home Care Supervisors, Home Support Supervisors, Mail Room-Newsletter Office, Director of Volunteers.

General Open Office Space: Secretaries, Clerical Assistants, Receptionist, Volunteers.

Table 5-12.--Administration
Space Program

ACTIVITY CENTRE	NET AREA m2	REMARKS
1. Coordinator	15.0 m2	
2. Executive Secretary	12.0 m2	
3. Administrative supervisor	12.0 m2	
4. Long Term Care Director	12.0 m2	
5. Programs Director	12.0 m2	
6. Home Care and Support Dir.	12.0 m2	
7. Reception and Waiting	20.0 m2	
8. General Office	36.0 m2	3 x 12. 0 m2
9, Accounting and Personnel	19.0 m2	2 x9.5 m2
10. Records	8.5 m2	
11. Clinic & Rehab.Centre Dir.	12.0 m2	
12. Mail Room	12.0 m2	
13. Volunteers' Coordinator	8.0 m2	
14. Volunteers' Room	12.0 m2	
15. Volunteer Clerk	8.0 m2	
16. Staff Lounge	22.0 m2	
17. Staff Washrooms	5.0 m2	
18 Visitors Washrooms	5.0 m2	
19. Board Room	20.0 m2	
TOTAL:	262.5 m2	

References:
Jordan, Joe. Senior Center Design. 1978, p.68;

Gardiner Thornton Partnership 1970, p. 43.

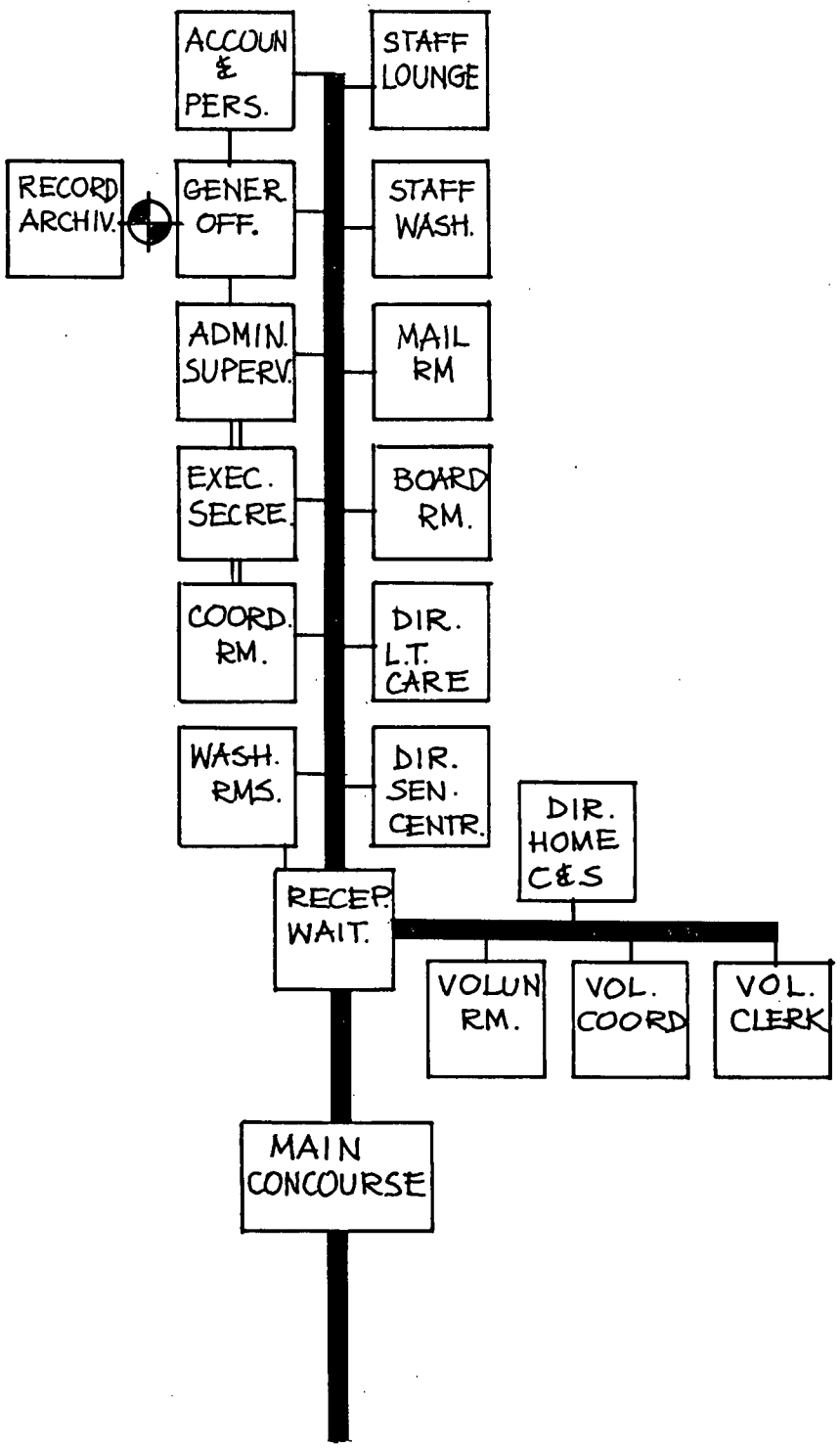


Fig. 5-20 Administration Suite

5.4.8 CLINIC

1) Purpose

An ambulatory care centre in the CCC will provide medical, dental and counseling services for the residents and the elderly from the Point Grey community. The principal objective is to provide health maintenance and health promotion.

This unit functions within the Core Centre activities. Residents or participants in the CCC programs will be making appointments to come here for medical examination, counseling, and dental work. Other specialists such as an optometrist and dietician will also be available by scheduled appointments.

2) Functional Description

Activities in the Clinic will include: reception of patients, doctors' consultation, undressing, physical examination, diagnostic tests, minor procedures, dressing, giving advice and instructions. The main activity sequences will involve professional and non-professional staff. In any of these activities the Clinic will be planned to achieve the following objectives:

- an easy access for the CCC patients or those from the Community arriving by private or public transportation.
- to respect the dignity and privacy of the patient.
- to satisfy the needs of handicapped patients.
- the possibility of regrouping of functions within the clinic thus to provide space flexibility.

- to make sure that the building be of non-institutional character.

a. Access

The receptionist's counter will be easily accessible from the Main Concourse as well as from the Intermediate and Extended Care facilities. It will be connected with the Rehabilitation Centre and Pharmacy Units, thus creating one health care block. The social welfare and counseling office will have a convenient access to patients from the waiting/reception area, but will be located away from other activities. There will be separate entrances for the staff and public. Generally, three functional zones in this Unit will be distinguished:

- public zone - the entrance lobby, waiting area, public washrooms,
- shared use zone - the reception area, examination rooms,
- staff zone - staff washrooms, workrooms, storages

b. Privacy

Doctor offices and examination room will be grouped around the waiting area. Patients' routes within the clinic will not cross staff routes and will not allow for views into offices, stores and staff rooms. Documents for filing, blood and urine samples, instruments and sterilizers will remain concealed from the public view. There will be a separation of incompatible types of patients. The waiting area will be screened visually and acoustically.

Table 5-13.--Clinic
Space Program

	ACTIVITY CENTRE	NET UNIT AREA m2	REMARKS
1.	Waiting/reception	25 m2	
2.	Doctor offices	56 m2	4 x 14 m2
3.	Examination/treatment room	18 m2	
4.	Dentist room	18 m2	
5.	Dental laboratory	8 m2	
6.	Social worker office	14 m2	
7.	Counselling office	12 m2	
8.	Public washrooms F&M	10 m2	2 x 5 m2 each 2 toilets
9.	Staff washroom F&M	5 m2	2 toilets with wash-basin
10.	Linen supply	3 m2	
11.	Clean utility	12 m2	
12.	Soiled utility	12 m2	
13.	Equipment storage	10 m2	
	TOTAL:	203 m2	
	GROSS AREA: 203 m2 x 1.4 = 284 m2		

References:

Putsep, Ervin. Modern Hospital - Inernational Planning Practices. 1979, pp. 606-630;

APRA. Facilities Program for the George Derby Long Term Care Society. 1982, pp. G66-74.

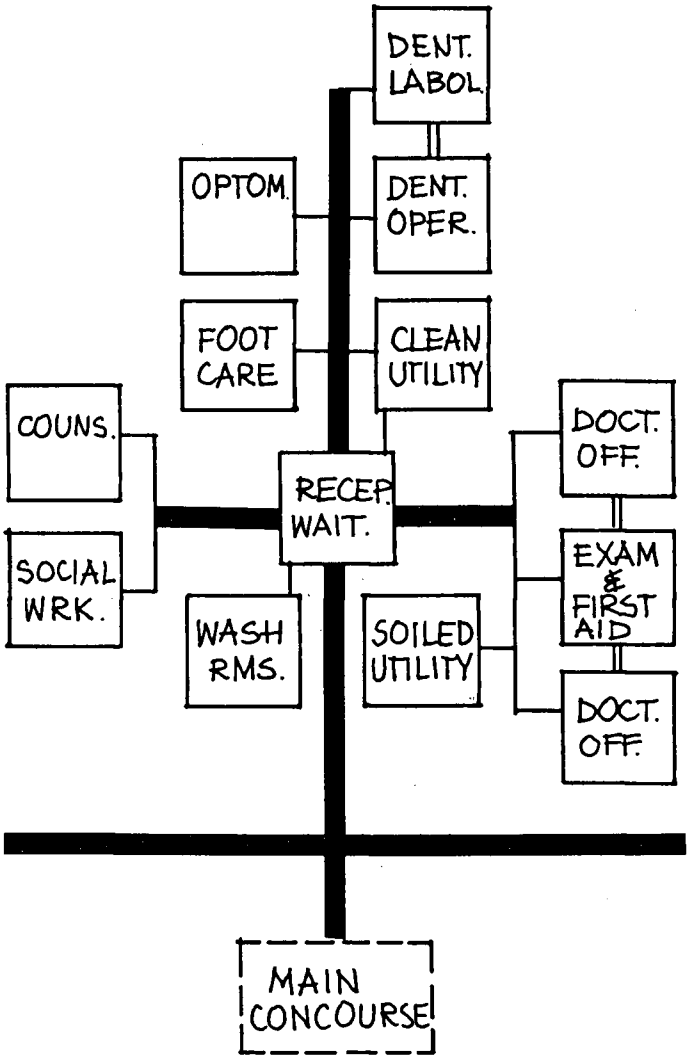


Fig. 5-21 Clinic

5.4.9 PHARMACY

1) Purpose

To provide pharmaceutical services for the CCC residents and the Point Grey area residents. This functional component will be responsible for ensuring that medications prescribed by physicians are available to the residents/patients in a timely and efficient manner. The basic function of the Pharmacy will be:

- to control medications in all Medication Rooms of the Long Term Care facilities: from receiving through storage and distribution;
- the requisition, storage, compounding, packaging, labelling and dispensing of pharmaceutical items to the residents and the customers from the Community.

2) Functional Description

The CCC Pharmacy system will be divided into two sub-systems. The first one will consist of medication rooms in the Long Term Care facilities--in Cluster Support areas. A monitored usage system for dispensing and distributing medications will be used. Daily delivery to medication rooms will ensure that necessary medications are available. However, a limited amount of ward stock will be kept in medication rooms. Therefore, the Pharmacist's office in the Core Centre will carry out ordering and supplying of the medications. The second one, will consist

of the Pharmacy and Dispensing in the Core Centre available to all: the CCC residents and Community customers. This component will include: retail space, small laboratory and storage.

a. Access

The Pharmacy must be conveniently located to Central Receiving, the Clinic, the residents and visitors, and the Central Supply - Material Services. To accommodate this, a location close to the Main Concourse, adjacent to the Clinic and with easy access to Material Services is necessary.

b. Function

The Pharmacy is going to be divided into four main functional areas: adminstration, dispensing, production and storage.

1. The ADMINISTRATIVE area will consist of:
   - Chief Pharmacist'Office, away from the stream of activity but within sight of the the production area
   - Retail-control-reception, for receipt of requisitions, visitors to the component and control of waiting area
   - Waiting area, designed for employees waiting for drugs and for residents and visitors
   - Employee's washrooms
2. The PRODUCTION area will be designed to allow a free flow of receiving, preparing, labelling, recording, and distributing of required orders or prescriptions.
3. The STORAGE area will be large enough to accommodate pharmaceuticals in a volume that is economical to buy and dispense within a given period of time. It will be open directly into

the working area and contain a walk-in refrigerator with storage and drawers for inside loading, storage and a vault for narcotics and other controlled substances.

Table 5-14.--Pharmacy and Dispensary Space Program

COMPONENT	NET UNIT AREA m2	REMARKS
1. Production	18 m2	
2. Storage	30 m2	
3. Retail Space	8 m2	
4. Pharmacist's Office	12 m2	
5. Waiting Area	15 m2	
6. Staff Washroom	3 m2	
TOTAL:	86 m2	
GROSS AREA: 86 m2 x 1.3 =	112 m2	
7. Medication Room *	37 m2	5 x 7.4 m2

* Area accommodated in Cluster Support components.

References:

Gardiner Thornton Partnership. Burnaby General Hospital Program for Expansion. 1970, vol.2.

APRA. Facilities Program for the George Derby Long Term Care Society. 1982.

Discussions with Pharmacy Staff in London Drugs Store; 600 W. Broadway St.

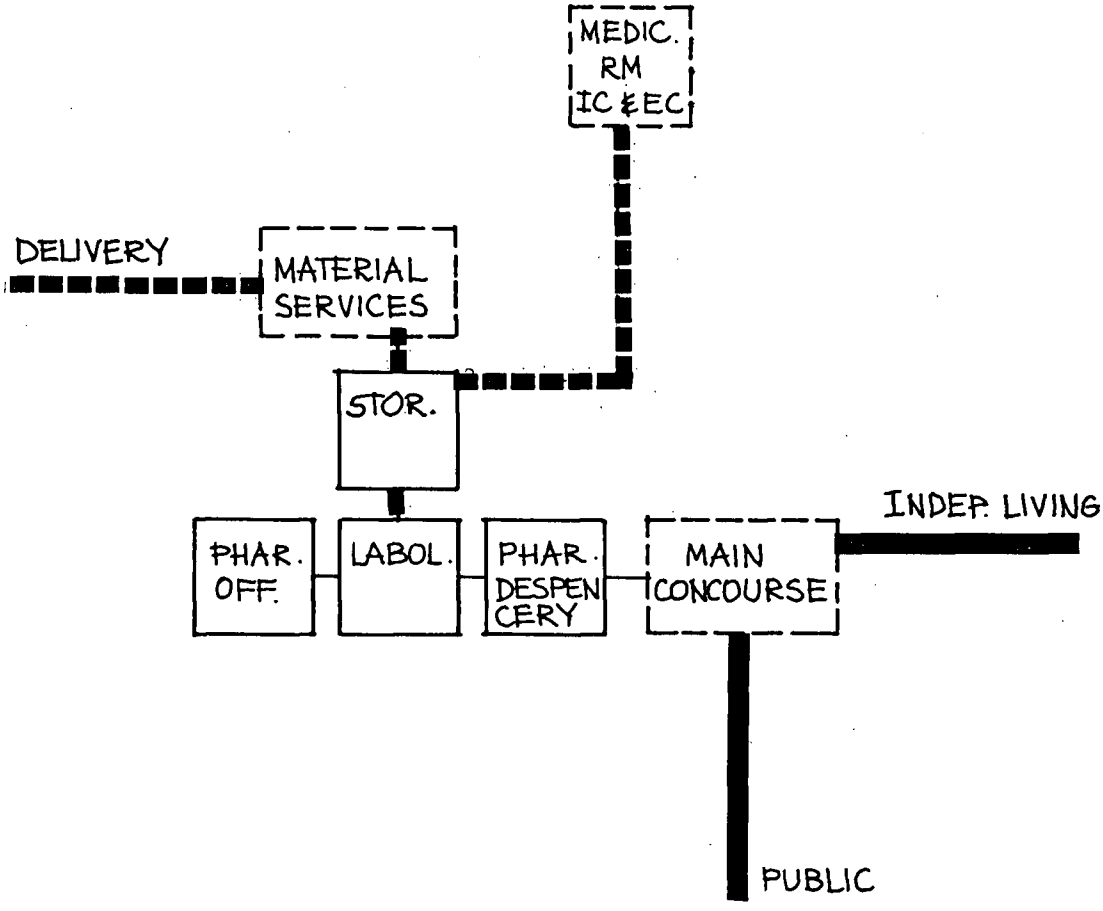


Fig. 5-22 Pharmacy

5.9.10. LIBRARY

1) Purpose

Reading is an important leisure-time activity for the elderly. Current magazines may be kept in the clusters' lounges or in the Main Concourse sitting area. More serious reading needs a separate library. Only a few residents will use this space at one time, so it does not need be large. For those who are seriously interested in music there will be an opportunity to listen to music cassettes (headphone listening) in a specially designed Reading/Listening space in the Library.

2) Functional Description

The Library will be comprised of 3 activity centres: Library Stacks, Reading/Listening Space and Work Area.

1. Library Stacks will be a semi-public space for storage of books or cassette tapes. This space will provide wheelchair access between shelves. The lighting system will be designed to minimize shadows and to allow flexibility in layout.
2. Reading/Listening space will be spacious enough to accommodate tables with power sources for tape decks. Room will have acoustic insulation, wheelchair access and a view to the outdoor recreational areas.
3. The Work Area will be the staff' workstation for signing out, receiving, repairs and monitoring of activities. It will have visual access to the Reading/Listening Space and Library Stacks.

a. Access

The Library will be situated close to the main activity area in the Core Centre. There will be an easy access from the Conservatory as well as from other Main Concourse components.

Table 5-15.--Library
Space Program

COMPONENT	NET UNIT AREA m2	REMARKS
1. Library Stacks	55 m2	
2. Reading/Listening Area	20 m2	
3. Work Area	12 m2	
TOTAL	87 m2	
GROSS AREA: 87 m2 x 1.3 =	113 m2	

References:

APRA. Facilities Program for the George Derby Long Term Care Society. 1982.

Discussions with the Woodwards' Library Staff, UBC.

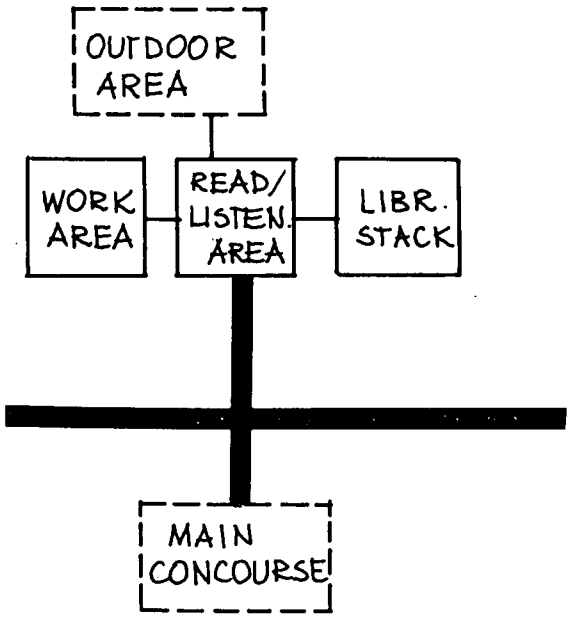


Fig. 5-23 Library

5.4.11. STAFF SUPPORT FACILITIES

1) Purpose

To provide facilities (lockers, washrooms and lounges) to be used by the staff for changing, storing clothes and as a respite from residents, visitors and other staff during breaks in working hours.

2) Functional Description

The Staff Support functional component will provide facilities for the Medical Staff, Professional Female and Male Staff, Non-professional Female and Male Staff. Lockers will be centralized for the majority of staff but decentralized for the following program components:

- Material Services
- Building Services
- Plant Services

A. In the Intermediate Care facility, there will be approximately 55 full time staff with the following subdivision:

   30% - level 1

   40% - level 2

   30% - level 3

Total professional staff = 5 (9% of the entire staff). Data from Mrs. Barbara Parson, Rehabilitation Consultant, Vancouver Health Department).

B. In the Extended Care facility, there will be aproximately 22 staff (data from Ms. June Nakamoto, Director Nursing

Services, Long Term Care, University Hospital, UBC Site)

Note: at the present time there are no official guidelines for staffing Extended Care Units (information from Ms. Leah Hollins, Nursing Consultant, Ministry of Health, Victoria).

a. Access

The Staff Support functional component will be located convenient to staff parking and to public transportation. It will have an easy access to all work areas.

b. Facilities

A. Professional Male Staff Locker Room, Shower/Washroom and Lounge will be located in close to the Clinic, Pharmacy and Rehabilitation Centre, as well as, to the Intermediate and Extended Care facilities.

B. Professional Female Staff Locker Room, Shower/Washroom and Lounge for the registered nursing staff; all are part of the centralized staff facilities, will be located in close proximity to the Intermediate and Extended Care facilities, as well as, to the Clinic and Rehabilitation Centre.

C. Non-professional Female Staff facilities for Nursing support staff will be located as in point B.

D. Non-professional Male Staff facilities for Nursing support staff and other male personnel will be located as in point B.

Generally, locker rooms will be designed as open areas divided by arrangements of banks of lockers. Lockers to be 12"x 21"x 72" high with space between for a bench for changing shoes.

Table 5-16.--Staff Support Facilities
Space Program

COMPONENTS	NET AREA m2	REMARKS
Professional Male:		
Locker Room	10.0	
Shower/Washroom	12.0	1 shower, 2 lavatories + toilets.
Lounge	20.0	
Professional Female Staff:		
Locker Room	10.0	
Shower/Washroom	12.0	2 showers + 2 lavatories + 2 toilets
Lounge	20.0	Common.
Non-professional Female Staff:		
Locker Room	10.0	
Shower/Washroom	12.0	
Lounge	20.0	
Non-professional Male Staff		
Locker Room	10.0	
Shower/Washroom	12.0	2 showers, 2 lavatories + 2 toilets
Lounge	20.0	Common for all staff.
TOTAL:	168.0 m2	
GROSS AREA: 168.0 x 1.2	201.6 m2	

References:

APRA. Facility Program for the George Derby Long Term Care Society. 1982.

Gardiner Thornton Partnership. Burnaby General Hospital Program for Expansion. 1970, vol.2.

5.4.12 LAUNDRY SERVICES

1) Purpose

To provide for Laundry Services for the Intermediate and Extended Care clusters by receiving, cleaning and distributing of residents' personal clothing. Laundry services will also monitor the collection and distribution of ward linens, the processing of which will be contracted out to other Commercial Laundry services and will utilize a linen cart system.

2) Functional Description

Clean linen carts from the Loading Dock will be held in the Clean Linen Area awaiting distribution to the Clean Supply Rooms. Soiled linen will be collected in designated Soiled Utility Rooms for pick-up and delivered to the Soiled Holding Area in the Main Laundry near the Loading Dock. Residents' items will be picked up from the resident clusters, sorted for processing and minor repairs, then will be washed and dried in the laundry facilities on site. However, for the Intermediate Care residents there will be an additional personal laundry facilities available (1 washer and 1 dryer) in each Cluster Support to provide an opportunity for residents to wash their personal clothing by themselves.

a. Access

The Laundry Services facility will be located in the Core Centre with an easy access to all Intermediate and Extended Care

clusters as well to Material Services with Shipping and Receiving Area.

Table 5-17.--Laundry Services
Space Program

COMPONENT	NET UNIT AREA m2	REMARKS
1. Clean Linen Holding	32.5 m2	
2. Soiled Linen Holding	16.5 m2	
3. Resident Laundry	65.0 m2	
4. Cart Cleaning	10.0 m2	
TOTAL	124.0 m2	
GROSS AREA: 124 m2 x 1.3 =	161.0 m2	

References:

APRA. Facilities Program for the George Derby Long Term Care Society. 1982.

5.4.13 PLANT SERVICES

1) Objectives:

1. To provide facilities required for the maintenance, operation and security of the whole CCC:
2. Responsiblity to maintain all buildings and equipment in good condition and functioning;
3. Responsiblity for the operation of boilers, pumps, fans, elevators and other mechanical equipment;
4. Responsiblity for the ground-maintenance, parking control, fire safety and watchman service;

2) Functional description

Basically the functions may be subdivided into two groups:

1. Plant Maintenance
2. Plant Operation

In this section the Plant Maintenance Facilities are described only (office space and workshops). For the Plant Operation please refer to the Building and Material Services Sections respectively.

b. Access

The Plant Services facility will be located in the Core Centre in close proximity to the Material and Building Services facilities. It will provide an office for the Plant-Superintendent who will be responsible for the Maintenance Department; reports to and works with the Administration Department to maintain plant efficiency. This office will be adjacent to the workshops. Lockers, Lounge and Washroom Facilities which will serve

all maintenance personnel. Material Storage will accommodate space for lumber, electrical supplies, plumbing supplies and paint, while the general workshop will provide space for all maintenance tasks. Staff will also be involved in the grounds care and maintenance, with all necessary equipment and materials being stored in Grounds Maintenance Storage. The Vehicle Holding area for the enclosed storage and washing of vehicles will also be provided within this functional component.

Table 5-18.--Plant Services
Space Program

COMPONENT	NET UNIT AREA m2	REMARKS
1. Plant-Superintendent Office	12.0 m2	
2. Lockers	10.0 m2	up to 10 lockers
3. Washroom/Shower	12.0 m2	2 T, 2 S, 2 W6
4. General Workshop	46.0 m2	
5. Material Storage	28.0 m2	
6. Grounds Mainten.Storage	35.0 m2	
7. Vehicle Holding	46.0 m2	
TOTAL	189.0 m2	

References:

APRA. Facilities Program for the George Derby Long Term Care Society. 1982.

5.4.14 BUILDING SERVICES

1) Purpose

To maintain clean and sanitary conditions throughout the Continuum of Care Complex. (The Independent Living clusters are served separately). Also, to collect and dispose of all refuse.

2) Functional Description

The Building Services facility will utilize the centralized facilities for storage and cleaning equipment with satellite Janitors Rooms throughout the facility.

a. Access

This facility will be located in the Core Centre central area (in the basement) with an easy access to the Material Services facility. Staff will report at the beginning of each shift to a central area to receive instructions and pick up equipment as may be required. There will be stores for supply and the housekeeping utility carts. The Executive Housekeeper's Office will direct and co-ordinate the housekeeping program. It will be located adjacent to the Assistant and Clerical Office which in turn will prepare work schedules, time schedules and reports. In the vicinity, there will be Mattress and Bed Storage Room to store spare or broken mattresses and beds. Housekeeper will arrange repairs. Garbage will be collected by janitors at residents clusters and transported by carts to Incinerator Room. It will be located adjacent to the maintenance workshops and

conveniently for garbage collection.

Throughout the Core Centre area, there will be Janitor Rooms at the rate of one per 550 m2 of floor area minimum. In the Intermediate and Extended Care facilities, there will be a Janitor Room in each Cluster Support.

Table 5-19.--Building Services
Space Program

COMPONENT	NET UNIT AREA m2	REMARKS
1. Executive Housekeeper's Office	10.0 m2	
2. Assistant and Clerical Office	15.0 m2	
3. Housekeeping Supply Room	10.0 m2	
4. Housekeeping Equipment Room	20.0 m2	
5. Mattress and Bed Stg. Room	20.0 m2	
6. Incinerator Room	20.0 m2	
TOTAL:	95.0 m2	
GROSS AREA: 95 m2 x 1.3 =	123.0 m2	

References:

Gardiner Thornton Partnership. Burnaby General Hospital Program for Expansion. 1970, vol.2.

5.4.15. MATERIAL SERVICES

1) Purpose

Generally to provide for the receipt, distribution and disposal of all supplies, equipment and services for the entire CCC facility. Specifically: to review, approve, buy and deliver all supplies ordered by all facilities; to receive, sort, weigh, and uncrate all goods delivered; to store new and obsolete goods and dispose of the latter; to arrange for repairs which can not be done by the CCC maintenance; to maintain an inventory of equipment and supplies in stores; to distribute goods to all functional components.

2) Functional Description

All deliveries and pick-up of supplies and equipment will be through the Material Services facility. The Materials Management Manager will be responsible for co-ordination and control of all supplies, purchasing and storage. As a supply service, this Department will maintain close a relationship with the Pharmacy, General Store, and Linen Services. All goods will pass through Central Receiving and Shipping with the exception of Food Services and Pharmacy. In the Shipping Counter incoming shipments will be opened and checked before distribution. It will have monitoring and controlling access to and from the Loading Dock, Central Stores with Shipping and Receiving. Central General Stores will provide storage for all non-dietary supplies

goods. In proximity to receiving and adjacent to the Food Services Facility, there will be the Bulk Food Storage. Perishables will be stored within the Food Services Facility. Used Equipment Storage will provide space for used furniture and equipment primarily from the Core Centre functional components. There will also be the Volatile Liquid Storage used by the Pharmacy and Flammable Store for flammable materials. Location of these will have to comply with the Building and Fire Code Regulations. The Resident Stores (accessible to residents) will provide storage space for the IC and EC residents' personal belongings such as large suitcases, furniture which can't be kept or stored in the long term care residential clusters.

Table 5-20.--Material Services
Space Program

COMPONENTS	NET UNIT AREA m2
1. Material Management Manager's Office	15.0 m2
2. Purchasing Agent's Office	15.0 m2
3. Clerk Office	15.0 m2
4. Storekeepers Office	8.0 m2
5. Dispatchers Office	8.0 m2
6. Receiving Area	28.0 m2
7. Shipping Counter	9.0 m2
8. General Stores	180.0 m2
9. Bulk Food Store	95.0 m2
10.Used Equipment Storage	90.0 m2
11.Volitile Liquid Storage	27.0 m2
12.Flammable Store	9.0 m2
TOTAL	499.0 m2
GROSS AREA: 499.0 m2 x 1.3	648.0 m2

References:

Gardiner Thornton Partnership. Burnaby General Hospital Program for Expansion. 1970, vol.2.

5.5. FACILITY COMMON OUTDOOR SPACE

1) Purpose

> In nice weather many older people take advantage of opportunities for outdoor activities providing them with fresh air, exercise, and change of environment. These activities include socializing, game playing, and being seen (Zeisel 1977, p.76).

More healthy life-styles and improved medical care have contributed to the creation of a new generation of active and more mobile elderly. For them, recreational and social activities are appealing.

The CC Complex will provide a variety of outdoor activities responding to the preferences and abilities of the CCC residents. For active "go-go" residents and visitors, there will be facilities similar to those in the existing retirement communities. These facilities will provide stimulation, enhance residents' self-esteem and create an opportunity for social interaction and integration with the Point Grey community.

For less mobile elderly, there will be a "therapeutic park" designed to meet the needs of the physically frail. For those who are interested in horticulture the garden plots area will provide exercise, contact with nature and personal reward and satisfaction.

2) Functional Description

The facility common space will be comprised of four functional components: the Country Club, the Rehabilitation

Outdoor Areas, the Garden Centre and Park. All these components will form a continuous open space with variety of flowering shrubs, perennials, trees and water features to ensure visual diversity at all times of the year.

a. The Country Club

Along the main pedestrian walkway, with an easy access to Auditorium and Special Programs Component, various games will be located: (active areas) croquet, bowling lawn, mini-golf, horseshoes, volley ball, badminton courts and shuffleboard. Those areas will be supplemented with shaded spectator benches (passive areas). Storage sheds for outdoor recreational equipment will be provided nearby.

b. Rehabilitation Outdoor Areas

There will be two components. The First - gymnastic lawn will be a component of the Rehabilitation Centre (the Core Centre) designed as an outdoor extension of the fitness and gymnasium space. The Second component will be specially designed rose and herb gardens with raised planters. These gardens will be developed within the therapeutic park and will help to organize horticulture therapy sessions. Both will be located near the Long Term Care residential clusters.

Research has shown (Taylor 1978) that horticulture therapy gives patients a link with life and a sense of being needed. It also provides an opportunity for physical activities and social interaction. For those with visual impairments, it provides an absorbing activity that does not strain their eyes. Although some of the elderly need assistance in working with plants, the

pleasure of working with plants is not lessened by a disability. For example, in the Extended Care Unit at the UBC Site Hospital horticulture therapy has proved to be very successful. The interest in gardening does not end when class is over. People have plants on their window sills and bedside tables and of course the care of them is ongoing. Plants do create a homelike touch in an institutional - hospital setting. Moreover, the interest in gardening is mentally stimulating and the learning experience can be shared with others (Taylor 1978).

c. The Garden Centre

For more active residents and visitors interested in gardening there will be an opportunity to maintain a "working" atmosphere in the garden centre. Research has shown (Carstens 85, p.113), that there is a growing interest in gardening among elderly people. For example, in Leisure World - Laguna Hills in California, the active retirement community has two garden centres. "The more recent one, approximately five acres, provides 500 garden plots in addition to potting sheds, greenhouses and restrooms."

The CCC garden centre will be located some distance from the main activities to allow for easy vehicular access for dropping off materials and better sun exposure. It is not the objective of this thesis at this stage of the Program development to decide on the size of the Garden Centre. We can assume however, that 50 garden plots 10'x15' with a possibility for future expansion will be sufficient at the beginning. This centre will give the residents an opportunity to manage its

affairs by themselves. Minimal rental fees for the use of garden plots may be charged to purchase community tools and to cover maintenance costs.

d. Park

A Park will link other activities together, but at the same time will provide additional choices for the residents. During nice weather special cultural events such as concerts, drama performances or meetings will take place in the outdoor theatre designed for 100 spectators. The park will also be a retreat for those who need more quiet and secluded areas.

> They occasionally retreat to these areas when they are in a contemplative mood, want to take a walk without meeting others, or need a change of scenery from their small apartment unit. An important aspect of retreats is that they offer additional choices to older residents. While the goal of retreat may be a quiet nice place, the process of getting there may be just as important to older residents (Zeisel 1977, p. 90).

The CCC site offers a variety of opportunities for residents who want just to walk on the grounds at some distance from the housing, somewhat removed from sight, who would like to enjoy a natural vista to the North Shore Mountains. The program rationale is that the park be designed as a therapeutic park. In order to meet the social, psychological and environmental needs of the residents the park:

1. will offer a variety of nature environments such as rose garden, herb garden, picnic areas with gazebo, ponds with water features, ducks and geese.

2. will maximize, physical and mental stimulation by providing variety of walkway surfaces (prosthetic design). For example, well-textured surfaces allow residents to feel the concrete under foot while reducing the possibility of slipping. A wooden bridge may heighten the accoustical stimulation of walking (Carsten 1985, p.110).
3. will provide for freedom of physical movement and at the same time will secure protection. The Park will be basically within the CCC facility, but there will be a connection with the existing Jericho Park.

A supplementary issue I would like to review briefly is pet therapy. Recent studies draw attention to the benefits of the simple presence of companion animals without any direct contact (watching)(Katchner 1982). In my research paper on "Pet Therapy: Preliminary Research Study on Effectiveness of Use of Animal Living outdoors within Institutional Environments", I found that in spite of management difficulties, there was an interest among elderly residents in the model "zoo idea" on the grounds of a Long Term Care facility. One resident suggested roe-deer, peacocks or rabbits as companions of the elderly residents. At this stage of program development I can only suggest a need in the next phase to review the possibility of providing contact with animals. A design response to this objective could be, for example, a pond with fish and birds such as ducks or geese.

The area requirements for the CCC Facility Common Areas are summarized in the table 5-21.

Table 5-21.--Facility Common Space
Space Program

TYPE OF ACTIVITY	DIMENSIONS IN FT.	FT.SQ.	m2	AVERAGE No.OF PARTICIPANTS
1. Country Club				
Bowling lawn (eight alleys)	120 x 120	14,400	1,234	32-64
Clock golf	30' (circle)	706	65	2-8
Mini golf		87,120	8,015	2-8
Croquet	30 x 60	1,800	165	2-8
Horseshoes	12 x 50 (x2)	1,200	110	2-4
Volley ball	50 x 80 (x2)	8,000	736	12-16
Shuffleboard	10 x 54 (x3)	1,620	58	2 or 4
Badminton	25 x 60	1,500	149	2
2. Rehabilitation				
Herbs garden		1,600	150	
Rose garden		1,600	150	
Gymnastic lawn		1,600	150	
3. Garden Centre				
Garden plots	10 x 15	10,000	920	for 50 res.
4. Park	3 acres	130,680	150	several retreats.
Picnics-BBQ				within park
Outdoor theatre		1,600	150	1.5 m2/ pers
TOTAL:		260,300	= 6 acres	

References:
Carstens 1985, p.113
De Chiara, Joseph and Lee E. Koppelman. Site Planning Standards. 1978.

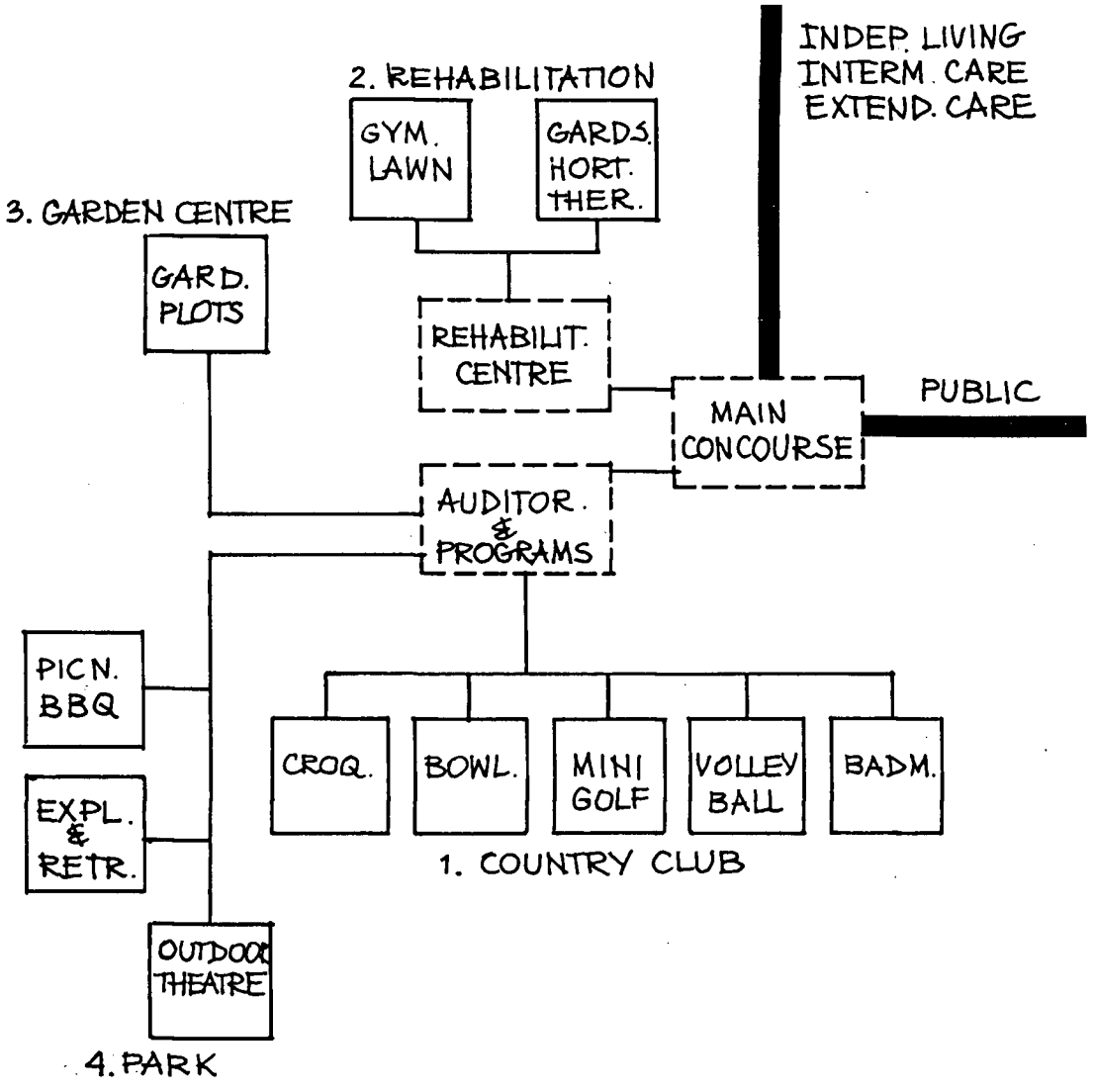


Fig. 5-24 Common Outdoor Space

5.6. PARKING AND ROAD NETWORK WITHIN THE FACILITY

Purpose

To provide an organized and controlled system for accommodating the vehicular movement and parking demands of the housing and long term care clusters staff and visitors. Short term service parking for cars, vans, trucks making delivery to the facility.

Functional Description:

All parking areas will be clearly identified for designated use and ease of access. Residential parking will be incorporated into the Independent Living cluster area. Staff parking will be separated and located close to a staff main entry. Public Parking will provide a direct access to the Core Centre. Service parking will provide a direct access to the shipping/receiving area in the Core Centre.

Table 5-22.--Parking Areas Program

COMPONENT	NO OF PARKING SPACES	AREA	REMARKS
Ind. Living Housing			
a. Rental Housing	16	424.0 m2	1 space each 6 units
b. Co-op Housing	50	1,325.0 m2	1 space each dw. unit
c. Strata-Title	75	1,987.0 m2	1.5 space each dw. unit
Visitors			
I.C. Facility	50	1,325.0 m2	
E.C. Facility	19	503.5 m2	
Core Centre	18	477.0 m2	25% of required number of spaces
Staff			
Approximately	50	1,325.0 m2	
TOTAL:	253	7,366.5 m2	

References:

City of Vancouver Parking By-Law:

1 space per 6 units in BCMHC Housing.
1 space per 1 Strata Title or Co-op Houisng
1 space per 37 m2 sleeping area in the IC facility
1 space per 2 beds or for each 93 m2 gross area in the EC facility.
1 space for each 18.6 m2 of assembly area in the Core Centre.

CHAPTER 6 - FEASIBILITY OF PROGRAM IMPLEMENTATION ON THE SELECTED SITE: THESIS CONCLUSION:

Chapter Summary:

Chapter 6 concentrates on the feasibility of implementing the Facility Program on the selected test site. The evaluation has been based on opportunities and constraints associated with the test site and how they affect program implementation. Guidelines and recommmendations are listed as to how the program objectives could be met. The housing development options have been presented in the form of four patterns. The Chapter concludes with findings and the Thesis Conclusion.

EVALUATION #1: Site Location and Size.

6.1.1 RATIONALE

Studies have shown that the location of facilities affects the elderly's happiness, mental well-being and even health. For older people the availability of neighbourhood supportive services may make the difference between a positive and negative outcome or even between remaining in the community and becoming institutionalized (Lawton 1986, p.51). In order to satisfy the elderly's psychological and physical needs the most important criterion for evaluating a site is accessibility to desired services and facilities. Table 6-1 provides data from several studies (Lawton 1986) and indicates the variety of life

Table 6-1 Uses of Resources, Travel Time and Distance to Resources.

Resource	Median % using	Modal frequency of use (users)	Modal frequency of use (all)	Modal travel time (users)	Modal use distance[b]	Modal nearest distance[c]
Grocery	87	2/week	1 or 2/week	7 min.	1–3 blocks	1–3 blocks
Physician	86	several/year	several/year	15 min.	>20 blocks	4–10 blocks
Visit one or more children	98	1/week	1/week to never	20 min.	<10 blocks	
Shopping other than grocery	70	1 or 2/month	never			
Church	67	1/week	1/week	12 min.	4–6 blocks	
Bank	64	1/month			4–6 blocks	4–10 blocks
Visit friends	61	2 or 3/week	never	7 min.	4–6 blocks	
Visit relatives other than children	57	several/year	never	35 min.		
Beauty/barber shop	40					1–3 blocks
Restaurant	31	several/year			>20 blocks	1–3 blocks
Park	30				1–3 blocks	
Clubs, meetings	29	1/month	never	15 min.	>20 blocks	
Entertainment	19	1/month	never	20 min.	>20 blocks	>11 blocks
Library	18					>11 blocks

[a] Data derived from estimates by Bourg (1975), Cantor (1975), Carp (1974, 1975c), Lawton and Nahemow (1975), and Nahemow and Kogan (1971) unless otherwise noted.

[b] Cantor (in press), New York City poverty-area residents.

[c] Newcomer (1976), public housing tenants.

From *Handbook of the Psychology of Aging*, edited by James E. Birren and K. Warner Schaie. © 1977 by Litton Educational Publishing, Inc. Reprinted by permission of Van Nostrand Reinhold Company.

Source: Lawton, Powell M. Environment and Aging. 1986, Table 2-6. p. 41.

supporting, life enriching and social resources used by the majority of independent older people. It can be seen that two-thirds or more shop at a grocery store, do regular shopping, visit children and attend church. Almost all visit a physician and over 40% never visit friends, but those who do, visit very frequently.

For most of these resources frequency of use was associated with distance. Since many elderly people may no longer own a car or can not drive one, walking is the easiest and least expensive means of transportation. Distance is therefore a critical factor. According to data provided by CMHC "Housing the Elderly" 1983, p.32 there is a scale of importance for community facilities and critical distances perceived by older people:

1. Grocery Store - 2-3 blocks (240-360 m)
2. Bus Stop - 1-2 blocks (120-240 m)
3. Church - 400-800 m
4. Drug Store - 3 blocks (360 m)
5. Clinic or Hospital - 400-800 m
6. Bank - 400 m
7. Social Center - 360 m
8. Library -1600 m

Studies have shown (Lawton 1988; CMHC 1988) that the best location for elderly living is a central urban site that is convenient to community services and amenities and also has a low level of traffic and city noise. The main factor in location of

housing for the elderly is proximity to "where the action is": shops, health and social services and areas of interest. Ideally, the elderly residents should live within two block walking distance of activity centers and public transportation. A good location features the further advantage of being accessible to visiting friends and relatives. Easy access to public transportation and downtown amenities allows residents to continue being active members of the community.

6.1.2 LOCATION (see Fig. 6-1)

The "Federal National Defence Lands" site comprises 51.47 acres of land and is located within the West Point Grey area and has an unique setting in Vancouver close to Jericho Beach. The site is bounded to the north by 4th Avenue; to the south by 8th Avenue; to the east by Highbury Street and to the west by Jericho Hill School. While zoned at present RS-1, the site is a subject of many ideas for potential future development. The Vancouver Planning Department, however, recommended this site as an ideal background for my thesis becouse it has a potential for an elderly facility which can maintain livability, privacy and a sense of community by:

1. reducing site coverage when an opportunity exists to provide more useable and visually interesting open space or to open up quality views from the CCC Community.
2. providing enclosure elements such as walls and planting for the portion of the subject site with lower site coverage

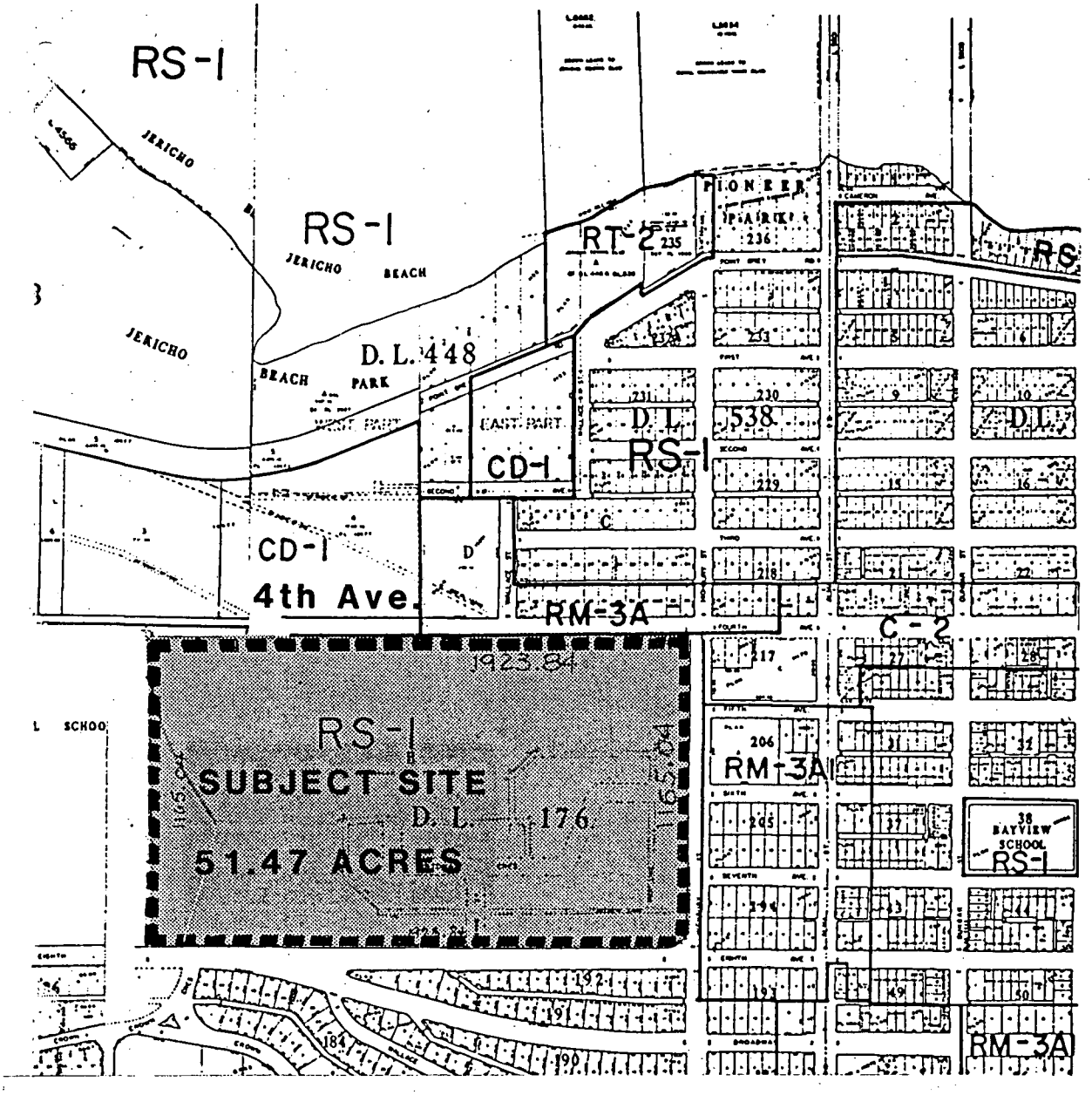


Fig. 6-1 Location and Size

where there is a need for continuous walls and street definition, for example along 8th Avenue.

3. emphasizing the main entrance to the Core Centre.
4. providing buildings in clusters, that are compatible with the overall neighbourhood character, maintain street rhythm and create useable open space.

Although there has been considerable discussions on a need to preserve Vancouver's single family neighbourhoods, there is a growing need for new forms of housing on the West Side of Vancouver, which would allow people to stay in their own neighbourhoods, when their single family houses are no longer suitable. Moreover, the population of this area is growing older and creates a new need for a supply of necessary health care services.

6.1.3 OPPORTUNITIES

The subject site would make a perfect place for the future development of multi-family housing as well as a facility for seniors. The Planning Department suggests F.S.R. = 1.00 and requires that new development be compatible with the surrounding area influenced basically by apartment developments and single family housing. This site offers several advantages such as location in the core of the Point Grey residential area, easy access to shopping and community services, walking distance to park and public recreational facilities as well as proximity to U.B.C.

6.1.4 CONSTRAINTS

Existing heavy traffic on 4th Avenue causes noise and pollution. Several measures may be recommended at this stage of program development in order to minimize the potential noise impact from 4th Avenue, as follows:

1. Locating residential part of CCC away from the noise source.
2. Using landscape treatment to help mitigate noise impacts- green buffer zone.
3. Using material construction methods that limit noise transmission such as laminated double glazing.
4. Locating areas not affected by noise such as corridors -"promenades" to create noise buffer.

6.1.5 CONCLUSION

The beautiful setting and vast land ensures that the CCC facility may maintain livability and privacy by providing a variety of space options from single family housing to the multiple-unit housing and commensurate sufficient, visually interesting open outdoor areas. The size of the site and type of development affect the site-planning pattern. In keeping with the recommendations of the City Planning Department, the CCC should be a low-rise development compatible with the surrounding neighbourhoods (see Fig. 6-1) (RS1 - on the South; RM - on the East and North).

EVALUATION #2: Land Use Context (see Fig. 6-2)

6.2.1 OPORTUNITIES

a. Available services

On the corner of 4th Avenue and Highbury Street, there is recently built commercial complex - Jericho Mall with large Grocery, Drug Mart and other retail and service outlets. Beside that, in close proximity, there are two shopping and services areas. The first: on 4th Avenue to the east of Alma Street which is comprised of the Bank of Montreal, restaurants, several boutiques and shops. The second: developed around the intersections of Alma Street and Broadway and 10th Avenue. It includes a new retail mall and a variety of retail outlets including the Bank of Nova Scotia and a post office. Near the corner of Broadway and Alma Street, there is the Canadian Legion Building which serves many of seniors currently living in that area.

b. Recreational Amenities

Further to the north, there is Jericho Beach Park and a variety of recreational amenities including Jericho Beach, the Jericho Tennis Club, the Royal Vancouver Yacht Club, Museum, and Brock House Seniors Centre, which serves the growing seniors' population within the Point Grey communities and those living in the Vancouver West Side.

6.2.2 CONSTRAINTS

Although the Facility Program provides for extensive, specially designed Outdoor Spaces within the subject site,

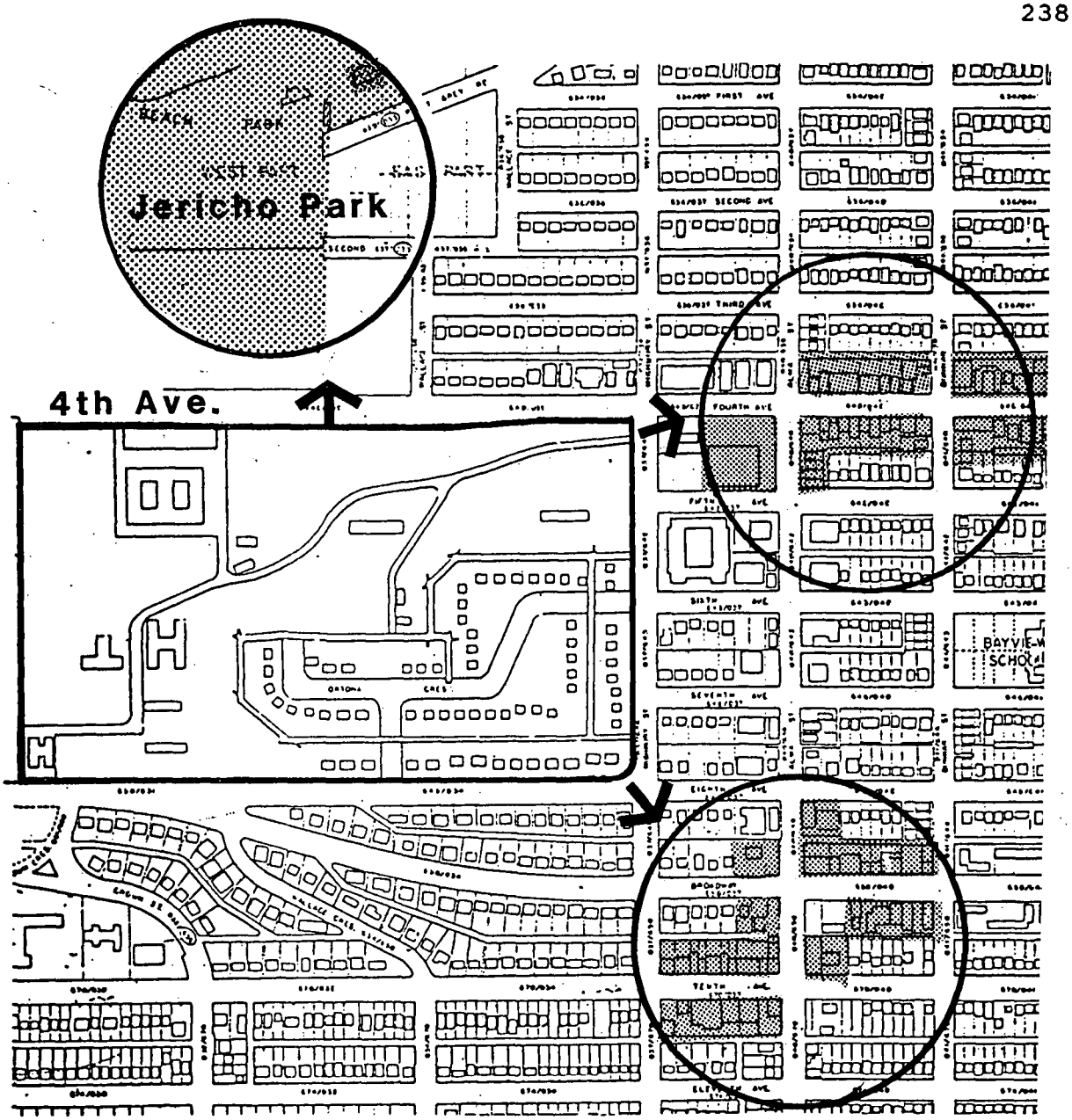


Fig. 6-2 Land Use Context

nevertheless the proximity of Jericho Beach Park and Jericho Beach would affect the physical and psychological need of the CCC residents. This is a very important feature, specially for the independently living seniors, able and willing to purchase their units. Therefore, a link should be provided between the new facility and the recreational area on Jericho Beach. This link could be a wide bridge only for pedestrians or a tunnel (both of course handicapped accessible).

Option #1: Wide bridge with landscaping

1. It most successfully extends the visual continuity of the CCC to Jericho Beach.
2. It appears, from the road, to be a substantial link to the two parts.
3. It allows for viewing the mountains on the North Shore.
4. It is a safe and convenient pedestrian connection.
5. Traffic volumes on 4th Avenue are unaffected.

Option #2: Tunnel

1. The tunnel could create a security problem.
2. There would be an interruption to traffic, while the tunnel was being constructed.
3. The feeling of connection between two parts would not be so apparent.
4. Viewing potentials while walking are eliminated.

The less expensive solution would be a pedestrian crossing, but

very inconvenient for the elderly in wheelchairs and handicapped persons.

6.2.3. CONCLUSION

Availability of several basic services within the walking distance and proximity to the recreational amenities on Jericho Beach will satisfy psychological and physical needs of the CCC residents living independently. Proximity to University Hospital UBC Site, acute care facility, will be an asset for the CCC long term care residents. Transfer to this facility by ambulance or other form of transportation will also be required for such services as radiological examinations and laboratory procedures as well as for patient admissions for acute medical, surgical or psychiatric conditions. The CCC facility location within walking distance to neighbourhood residential areas, specially to the surrounding housing oriented to the elderly, will encourage potential visitors to participate in the Core Centre programs and activities. The long term care facility, Day Care and Respite Care will be very convenient for the future residents, participants and their families.

EVALUATION #3: Public Transportation, Vehicular and Pedestrian Access.

6.3.1 OPPORTUNITIES

a. Public Transportation (see Fig. 6-3)

There are two easy accesses to public transportation, which

provide connection with the surrounding areas, Kitsilano, Dunbar, Kerrisdale, Downtown and UBC. The first is on 4th Avenue with a bus stop on the north boundary of the site. The second access is located further to the south, on Broadway Street.

b. Vehicular Access: (see Fig. 6-3)

The present vehicular access to the subject site is provided from Highbury Street (three entrances), from 8th Avenue (one entrance), and from 4th Avenue, in the western part of the site (two entrances).

c. Pedestrian Access: (see Fig. 6-4)

Pedestrian movement from the subject site will be in two directions: the first, to the 4th Avenue and service area, bus stops and Jericho recreational amenities and the second, to the Broadway shopping area and bus stops. Pedestrian access to the site should be provided from 4th Avenue (The Core Centre) and 8th Avenue. Since the existing vehicular traffic on 4th Avenue will obstruct pedestrian movement to Jericho Park a link (pedestrian overpass) between the new facility and the recreational area should be provided as indicated in Evaluation #2. Public access to the Core Centre should be easily identified from 4th Avenue.

6.3.2. CONSTRAINTS: HEAVY VEHICULAR TRAFFIC

The subject site is bounded by a major arterial route 4th Avenue with very heavy traffic and local distributors Highbury

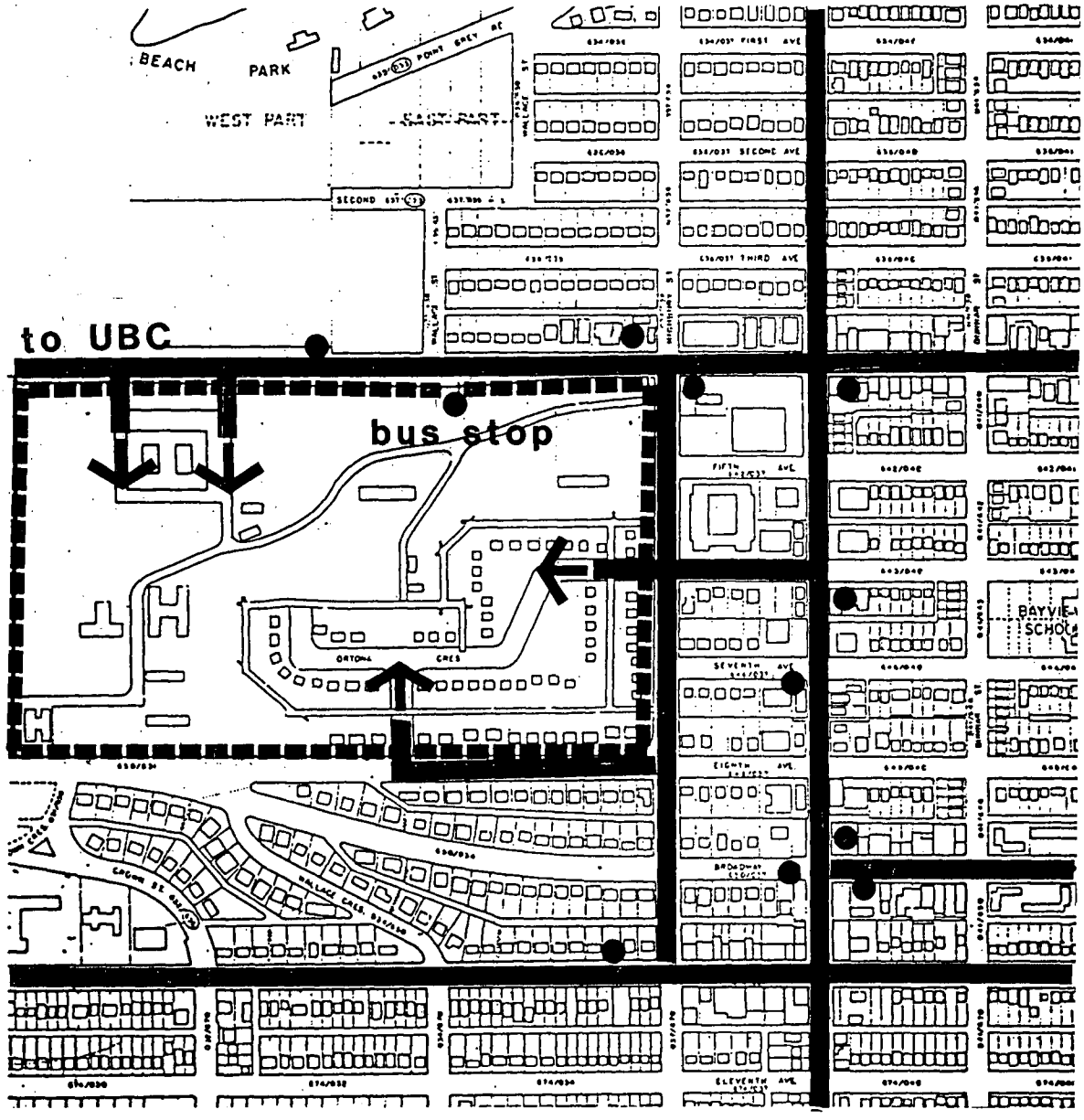


Fig. 6-3 Public Transportation and Vehicular Access

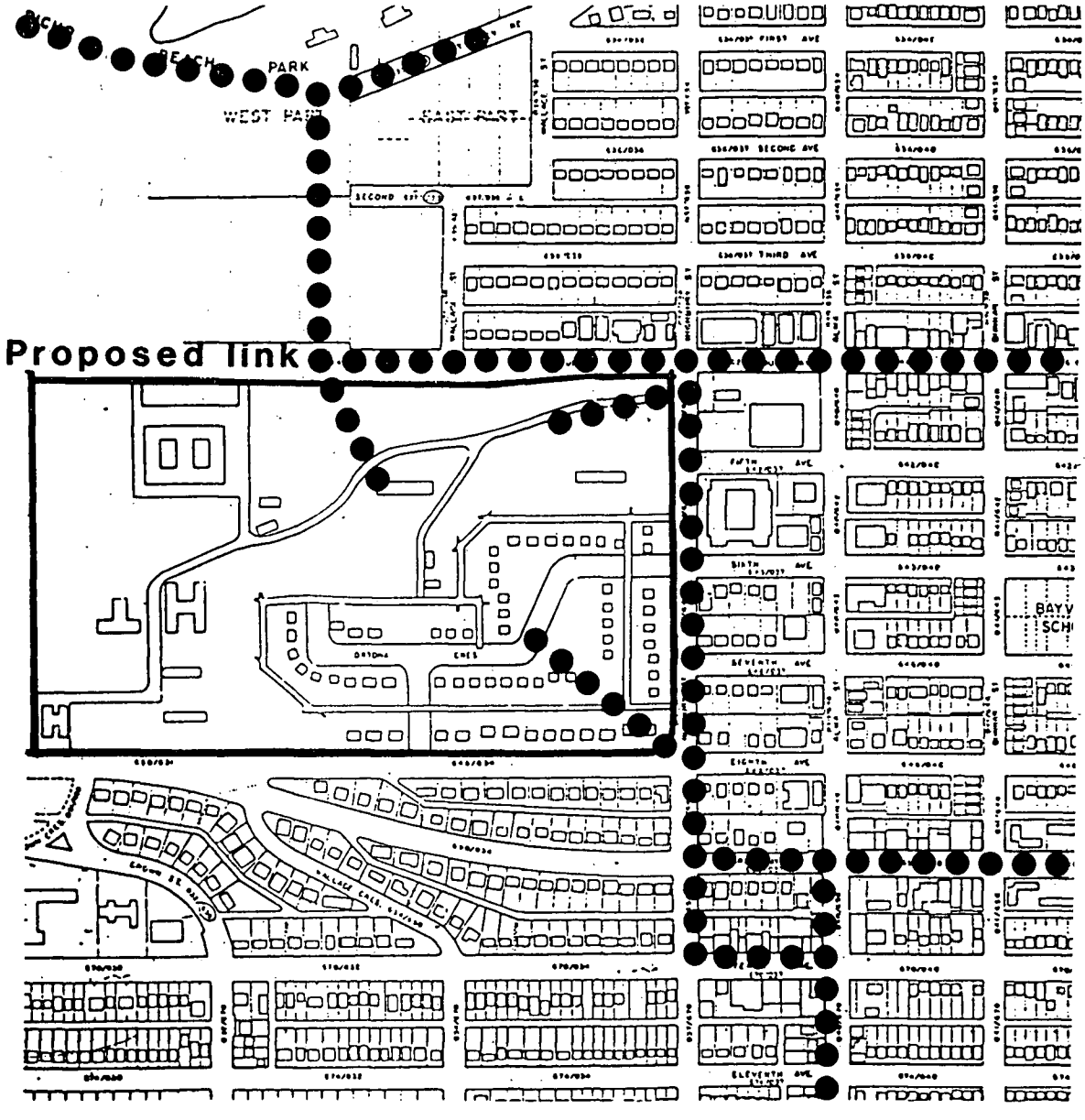


Fig. 6-4 Pedestrian Access

Street and 8th Avenue. The City Engineering Department does not have recent traffic data on 4th Avenue; however, the available 1981 and 1982 data indicated that the vehicular traffic has a great impact on the quality of life in the development along 4th Avenue. In the rush hours, for example, between 4 P.M. and 6 P.M. outbound volumes away from the city centre comprised 1000 vehicles and in the morning between 7 A.M. and 9 A.M. inbound volumes towards the city centre comprised 800 vehicles.

Other information from Automatic Traffic Counts: 1976-1985 (seasonally & daily adjusted data) provides even more dramatic data. For example, in rush hours between 7-9 A.M. outbound volumes away from the city centre towards UBC amounted to a maximum of 2095 vehicles, while in rush hours between 4-6 P.M only maximum 1045 vehicles. On the other hand, the inbound volumes towards the city centre between 7-9 A.M. amounted to a maximum of 808 vehicles, while in rush hours between 4-6 P.M. it amounted to maximum of 2380 vehicles. These data indicate tremendous traffic flow in the direction of UBC Campus. Other data from the City's Engineering Department indicate a serious problem with the number of left turns made from Alma Street to West 4th Avenue. This intersection is extremely congested (especially in summer time), because of its access to the beach as well as to the UBC. The problem with left turn can also appear on the intersection of 4th Avenue and Highbury Street.

In order to reduce the heavy traffic on 4th Avenue and provide easy access to the site the City has recommended an access to the subject site from Highbury Street through Sixth

Avenue. Moreover, ingress and egress to the parking area must balance the impact on arterial volumes and abutting residential properties. All existing parking in the neighbourhood occurs either on the streets, in the front yards, or garages located on the side, or rear yards. When considering seniors oriented housing, the issue of parking often arises.

6.3.3 CONCLUSION

Easy access to public transportation will allow the CCC residents to continue to take an active part in the community. Staff and seniors living in the community, but attending on-site program may be using public transporation, therefore an easy access to this service will be an asset. It is likely that visitors to the elderly residents will rely on public transportation as well.

Vehicular Access - Each major component of the CCC will have its own external access. In order to reduce the heavy traffic on 4th Avenue and avoid congestion of traffic on the intersection of 4th Avenue and Highbury (left turn), the main vehicular access to the site should be provided from Highbury Street through Six Avenue according to recommendation of the City Engineering Department.

This access should be provided as a service access to the Core Centre facilities in conjunction with parking for visitors. Parking should be situated close to the main entrance to preclude visitors from entering the facility through unauthorized

routes. Space provision should be provided for the future expansion of the parking area.

The CCC development should employ also existing vehicular access from 8th Avenue to the independent housing residential clusters. The existing access from 4th Avenue should remain as an access to the long term care facilities keeping in mind the easiest connection with the Hospital and the UBC Campus.

EVALUATION #4: Site Physical Characteristic.

6.4.1. OPPORTUNITIES: SITE NATURAL RESOURCES

a. Topography (see Fig. 6-5)

The site slopes from the southwest to the northeast. There is approximately a 120 foot change in elevation across the subject site. The elevation rises from 110 feet to 230 feet. However, the steepest part of the site is located in the southwest, where there is almost an 8% slope. The northeast part of the site is almost flat where the elevation rises approximately 20' and the slope doesn't exceed 2%.

b. Vegetation and Landscaping: (see Fig. 6-6)

The subject site is a vast, green area in Point Grey. In the western part of the site, there is a substantial quantity of deciduous trees, which provide a natural buffer zone from the adjacent Jericho Hill School and Justice Institute. Along 4th Avenue, there is an existing green buffer with deciduous trees that provides a barrier from the noisy 4th Avenue. Close to the intersection of 4th Avenue and Highbury Street, there is a beau

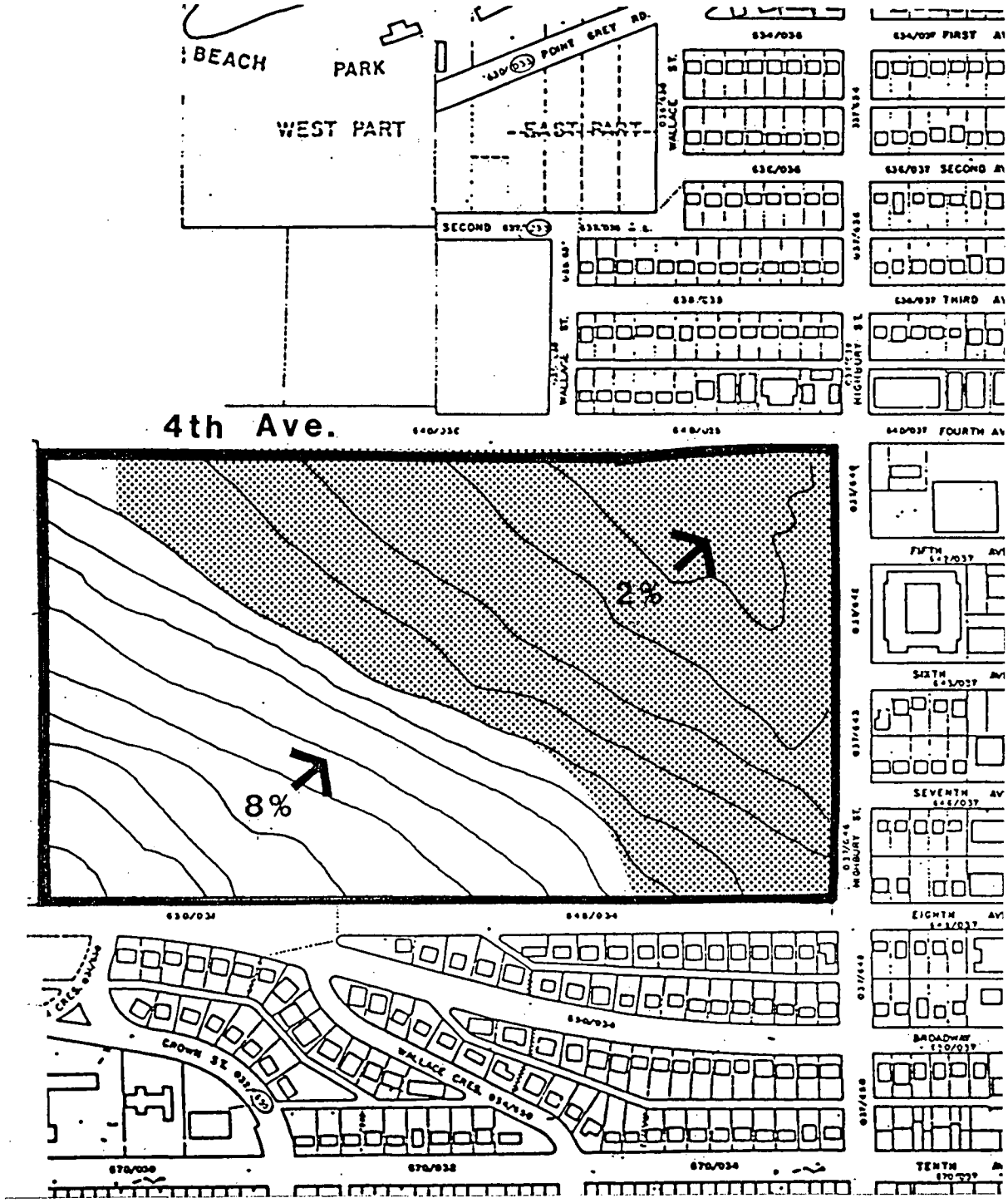


Fig. 6-5 Site Topography

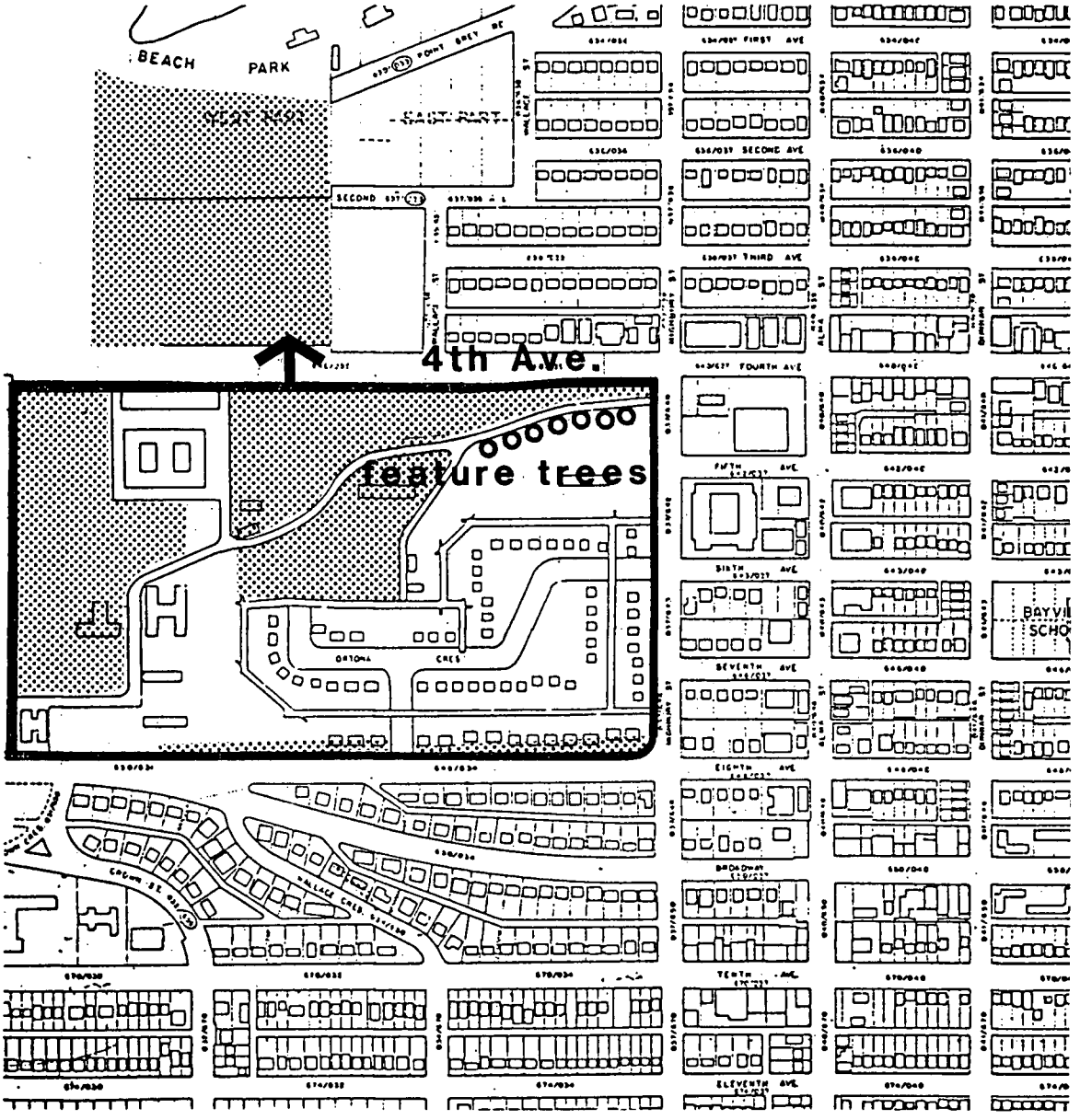


Fig. 6-6 Vegetation and Landscaping

tiful alley with many feature trees that cross the site diagonally on the east-west axis. The new CCC development has a potential to emphasize natural beauty of the site through landscaping that creates visual interest and identity. This can be achieved by:

1. Reinforcing and integrating with the pattern and character of the existing landscaping.
2. Provide landscaping with a variety of flowering shrubs, perennials and trees; to be attractive in all four seasons of the year.
3. Retaining existing mature trees especially in the alley at the intersection of 4th Avenue and Highbury Street.
4. Incorporating special open space features such as ponds, fountains, arches, arbours to create visual interest along the street edge.
5. Incorporating lighting into landscaping to create an attractive night-time appearance and illuminating all major walkways to allow safe use at night.

c. "Green Oasis" in the Point Grey Area

The Federal National Defence Lands site as can be seen now is a large green open space in the Community. The proposed CCC facility will transform the land into a medium density development but with an abundance of open spaces accessible to all: residents of the facility, the neighbourhood as a whole and the general public. The proposed open spaces shall contribute to the neighbourhood identity by:

1. Creating large continous open space rather than a series of smaller isolated spaces.
2. Linking the open spaces with Jericho Park.
3. Creating a gradual transition from the public realm of the street to the private realm of the individual unit.
4. Providing common (shared by residents) open space in the form of court yards.
5. Minimizing the use of high, solid fences along the street edge. Privacy fencing or landscaping screening should allow continuity of open spaces between clusters.
6. Private open spaces shall be directly accessible from each unit in the form of a patio or balcony. Ground level private open space shall be defined by screening or landscaping.
7. On the sloped part of the site along 8th Avenue open space should be terraced to complement existing topography and landscape.

6.4.2 CONSTRAINTS

The south-west portion of the site along 8th Avenue shows a very steep slope approx. 8%, which affects any residential, barrier-free design for the elderly. The CCC development should concentrate in the north eastern portion of the site to facilitate residents walking without hazards.

6.4.3 CONCLUSION

The site provides an opportunity to create a large contin

uous open space, which can be linked with Jericho Park. This central open space should be designed for the Country Club facilities and Park. The existing trees, especially in the alley, important feature of the site, should be preserved in the future development to create visual interest and enhance quality of the CCC private and common open space.

EVALUATION #5: Space Character and Views

6.5.1 OPPORTUNITIES

a. Massing Scale and Housing Character

In keeping with the recommendations of the City Planning Department, the CCC should be a low-rise development compatible with the surrounding neighbourhoods (RS-on the South; RM-on the east and north).

South of 8th Avenue and west of Highbury is the edge of the West Point Grey single family neighbourhood. To the east of Highbury Street, there is a multi-family housing zoned RM-3A1, which includes a new development of condominiums for older adults. On the corner of 4th Avenue and Highbury Street, there is an 11-storey residential building under construction (adult oriented). To the north, there is multi-family housing zoned RM-3A, which comprises also the rental housing for the elderly.

b. Public and Private Views: (see Fig. 6-7)

There are only limited public and private views in the area due to the topography and existing trees on the site. The private view on the subject site is only available in the

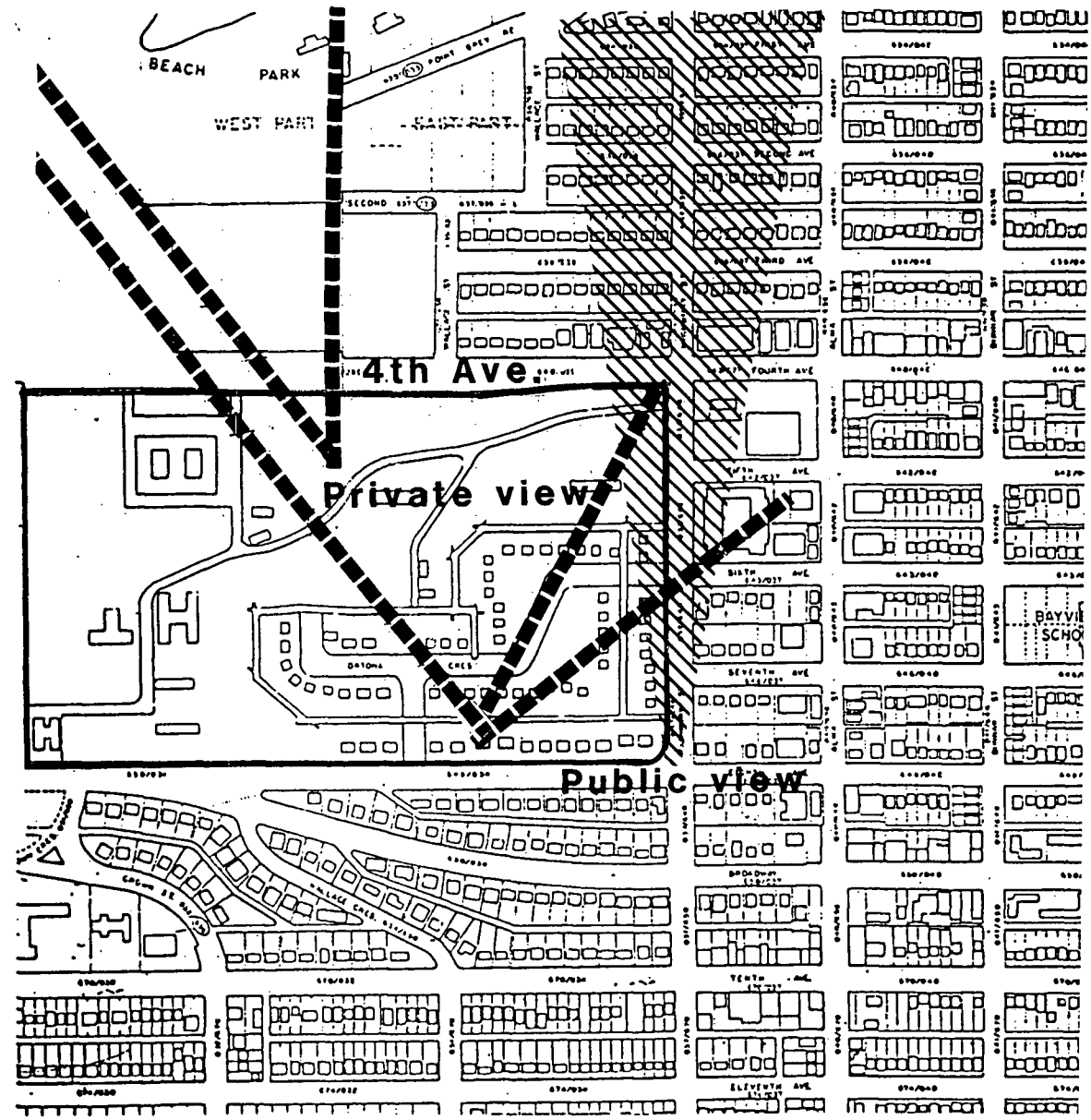


Fig. 6-7 Public and Private Views

the southern part of the site (the highest point) and in the northwest part of the site where is a view of the mountains and Jericho Park. The major public view corridor exists along Highbury Street, looking north. The CCC development should ensure that these views are preserved.

This can be achieved by:

1. Siting the building mass away from the potential view corridors.
2. Limiting building mass where it blocks significant views from adjacent buildings - especially in the south part of the site.
3. Linking open spaces to extend the new depth.
4. Locating landscaped open spaces close to windows in units with limited opportunities for distance views.

6.5.2 CONSTRAINTS: COMPATIBILITY WITH NEIGHBOURHOOD

The existing apartment buildings along 4th Avenue and Highbury Street are 3 storey buildings, which have no special architectural merit. Along 8th Avenue, there are one or two storey older houses built as single family homes.

6.5.3 CONCLUSION

In keeping with the community objective (Chapter 3), N.D.O. #2, the new development on the subject site should achieve visual compatibility with the surrounding housing. In terms of overall massing, a new development should provide massing options from single family homes to multiple-unit housing. The

following guidelines are recommended:

1. Single family housing forms in the area adjacent to one family detached houses, 1-2 storey high.
2. Apartment building forms along Highbury Street compatible with the new apartment buildings now under construction. While some flat roofs already exist in the apartment buildings, the new buildings should reinforce the "house-like" character by providing pitched roofs, dormers, chimneys and porches.
3. Emphasizing the continuity of the commercial character of Alma Street and the 4th Avenue corner.

The heights should vary from 3 storey buildings along Highbury Street and 4th Avenue to 2-1 storey buildings along 8th Avenue.

The CCC Independent Living rental (BCHMC) housing - apartment building, 3 storey height should be located along Highbury Street. One story height co-op and strata title townhouses should be located along 8th Avenue. In keeping with the objective N.D.O. #3, the Core Centre should be located on 4th Avenue close to Highbury Street in order to maintain a more urban streetscape character in the north east part of the site.

Consideration should be given to the views from the new development. In keeping with objective N.D.O. #4, the CCC development should place residential long term care cluster in the north-west part of the site to take advantage of a wonderful view of the North Shore Mountains and Jericho Beach. In the southern part of the site the Independent Living clusters should

permit building mass to preserve the private view.

EVALUATION #6: Housing Patterns (see Fig. 6-8, 6-9, 6-10, 6-11)

6.6.1 RATIONALE:

Patterns of Housing within the Continuum of Care Complex may be based on either separation of the on-site facilities for residents with different ability level or integration of such facilities. Both solutions have advantages and disadvantages. According to Carstens (1985) several points can be noted in favor of the separation pattern:

1. People tend naturally to group themselves. More able residents prefer not to mingle with the less competent.
2. Integration of care facilities with more independent living may promote an "institutional" image rather than "residential".
3. The social cost of separation may be reduced by management policies that encourage volunteer interaction.

In favor of integration pattern there are some supportive factors:

1. A financial rationale favors shared services and facilities.
2. Integration promotes sharing, mutual assistance, self-help and also provides a powerful opportunity for social learning.
3. Segregate facilities often require the eventual movement of residents and the separation of spouses and friends. Such a move can have a very negative effect upon the residents' health.

Therefore, the decision to create a separate or integrated care facility must be carefully weighed. Pattern options for housing arrangements (based on Carstens 1985) include the following:

Pattern No. 1: Separating living zones for independent, intermediate and dependent living - nursing care (see Fig. 6-8).

Pattern No. 2: Clustering intermediate and extended care facilities and also support services together while providing a separate zone for independent living residents (see Fig. 6-9).

Pattern No. 3: Shared meeting and common spaces, but separate residential areas and facilities suitable for each level of care (see Fig. 6-10).

Pattern No. 4: A radial arrangement with common facilities and social areas as the central core element. Services and facilities common to various levels of care create separate housing zones (see Fig. 6-11).

6.6.2 PATTERN No. 1: OBJECTIVES:

1. Separate identities and independent functioning for each level of care.
2. Complete separation of the extended care facility and its juxtaposition to Independent housing attempts to reduce psychological associations of physical proximity to more intensive care facilities associated with a personal nearness to death and dying.

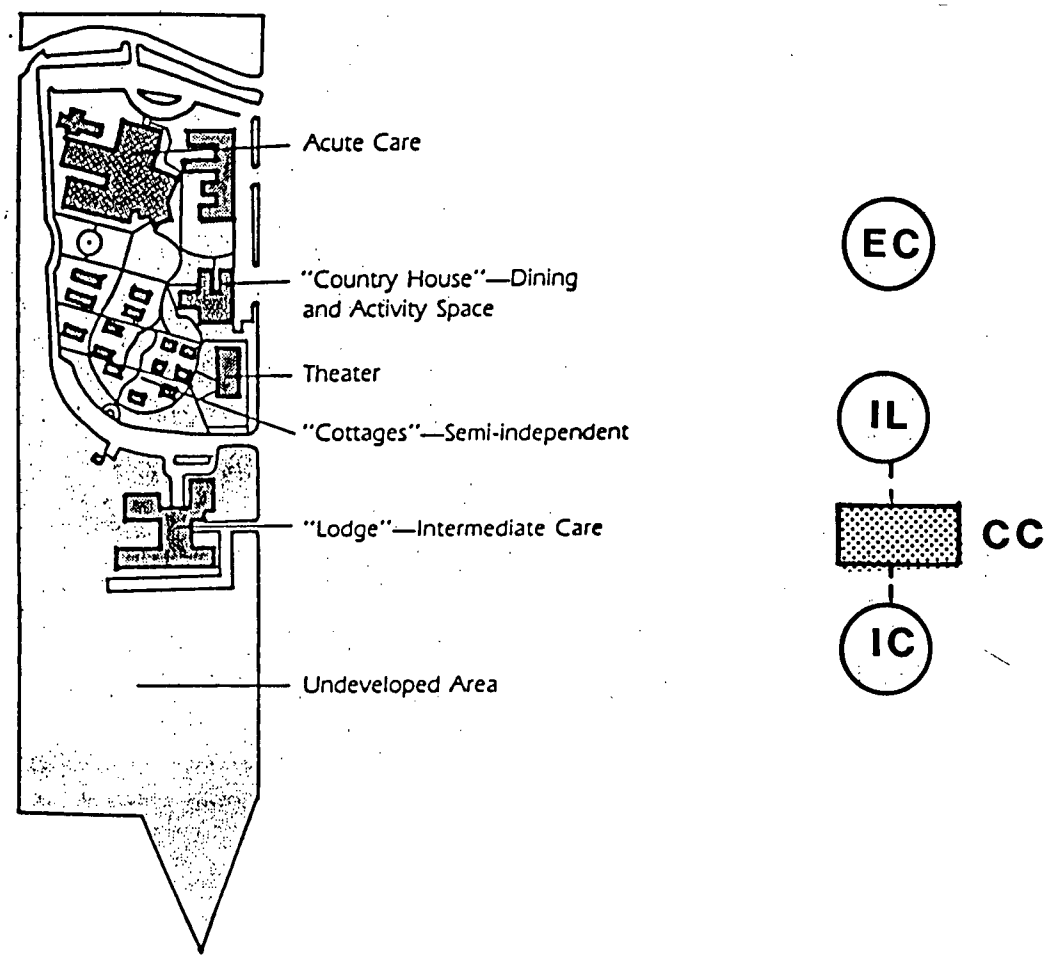
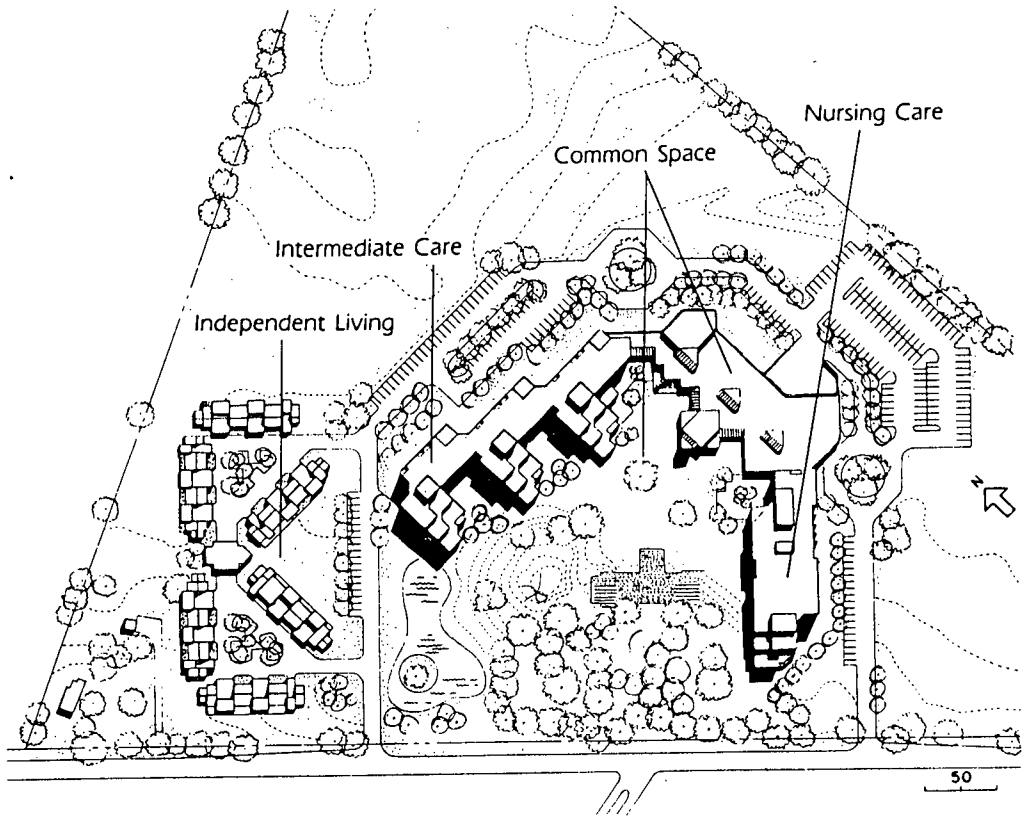


Fig. 6-8 Pattern No. 1

Example - Existing Site at the Motion Picture and Television Industry Fund Country House and Hospital, California.
Source: Carstens, D. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. 1985, p. 44.



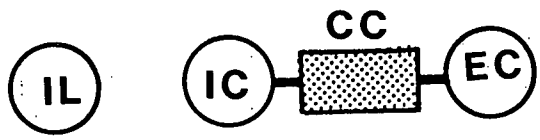
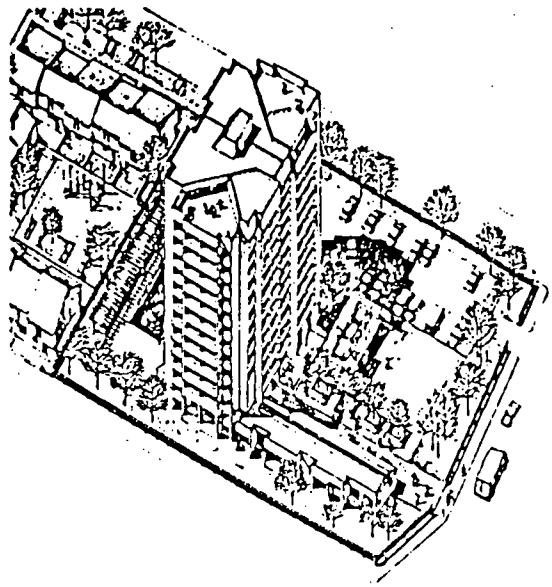
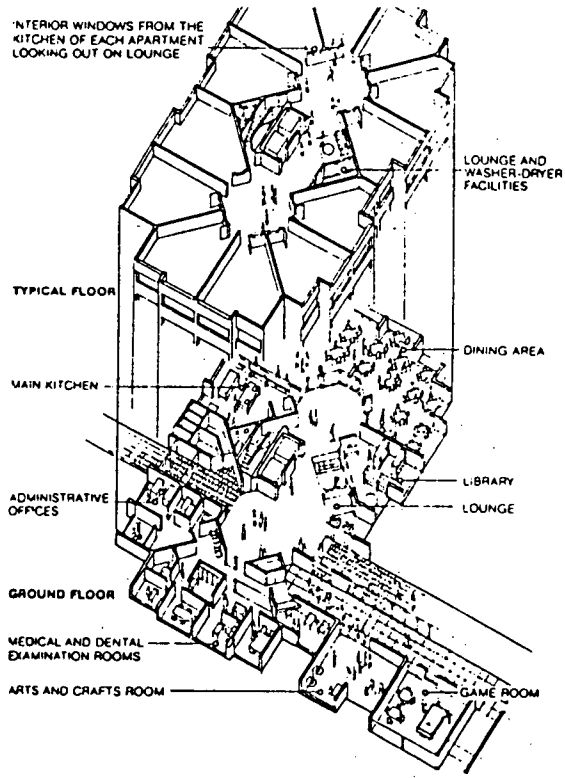


Fig. 6-9 Pattern No. 2

Example - Maple Knoll Village, Ohio. The Gruzen Partnership Architects and Planners, New York.
Source: Carstens, D. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. 1985, p. 38.





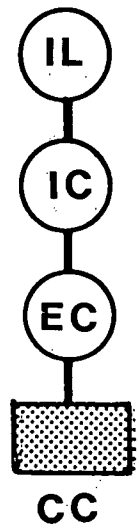
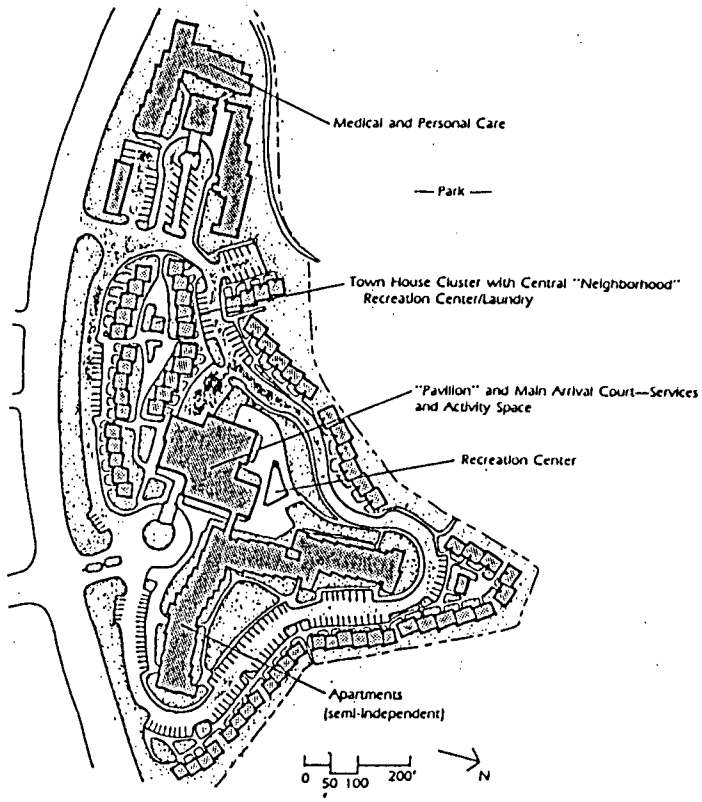


Fig. 6-10 Pattern No. 3

Example - Prototype of the Elderly Housing. Oskar Newman Architect/Planner, New York.

Source: Rush, R. The Age of the Aging. Progressive Architecture. 1981, No. 8, p. 60.



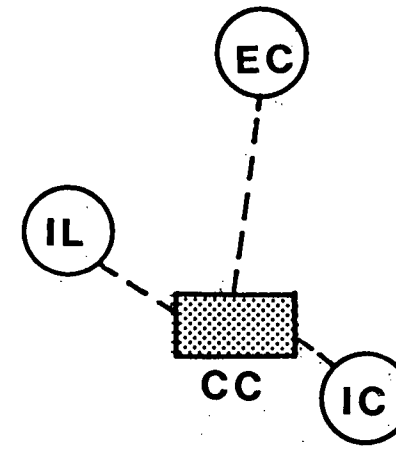


Fig. 6-11 Pattern No. 4

Example - Regents Point. Neptun and Thomas Associates Architects, Pasadena, California.
Source: Carstens, D. Site Planning and Design for Elderly - Issues, Guidelines and Alternatives. 1985, p. 48.

3. Shared activity space (the Core Centre) affords some interaction between intermediate and independent living.

This pattern was employed in the proposed master plan for the Motion Picture and Television Fund Country House and Hospital, Los Angeles in California (see Chapter 1).

6.6.3 PATTERN No. 2: OBJECTIVES

1. Promote the image of independent living in a separate complex of the Independent residential cluster.
2. Provide opportunities for interaction for the Intermediate and Extended Care residents with independent living residents in common shared space (the Core Centre).
3. Separate the Extended Care from the Intermediate Care by shared space - the Core Centre to reduce psychological association with nearness to death and dying in the Extended Care facility.

This pattern was employed in Maple Knoll Village, Ohio (Carstens 1985, p.38) and in St. Michael's Centre, Burnaby, B.C. As an alternative arrangement the Independent Living and Intermediate Care can be clustered together with the common shared spaces in the Core Centre, while Extended Care Cluster may remain as a separate entity. For example, Independent Living Housing and Intermediate Care Facility are clustered in Hollyburn House in North Vancouver B.C. and South Granville Park Lounge, Vancouver, B.C. (see Chapter 1).

6.6.4 PATTERN No. 3: OBJECTIVES

1. Integrate all levels of care and shared common space - The Core Centre - in one building together to promote direct access to services and a sense of security among residents.
2. Promote a sense of safety and security for more frail residents by locating independent living close to dependent living.
3. Reduce stress of relocation to separate zone on the site when one's health deteriorates. Within the same building services can move easily to the residents and while they can stay in their dwelling units.
4. Reduce stress of the separation of spouse and friends if movement would be necessary.

This pattern was employed in Seton Villa in Burnaby, B.C. (multi-level facility)(See Chapter 1). Different floors of this highrise differentiate level of care (seven top floors - Independent Living, next six floors - board residents, the bottom four floors accommodate PC-IC residents).

6.6.5 PATTERN No. 4: OBJECTIVES

1. Maximize access to the common facility from each level of care in residential areas.
2. Create a separate entity of each level of care in separate residential clusters to promote "mini community feeling".

This pattern was partially employed in the Regents Point continuum of care environment community (see Chapter 1). It can provide an alternative arrangement by lengthening for example

juxtaposition of the Extended Care facility in order to reduce physical proximity to more intensive care as well as by prolonging a distance form Independent Living units to promote image of independent living.

6.6.6 CONCLUSION

Housing Patterns have been presented in Evaluation #6 for the purpose of a general overview and comparison. If it was a real-life situation, it would be the moment when the major decisions regarding project development would have to be made. This would be a transitional phase from the facility program to the feasibility study usually undertaken by the Building Committee (in case of Non-Profit Society) or the Developer (in case of Market Housing) and then the Architect would be starting off with the Schematic Design and Design Development. Another issue, which would have to be resolved at that time, is the actual City of Vancouver zoning, probably CD-Comprehensive Development District, usually developed and approved after a long process of the city planners involvement and public hearings held in the subject neighbourhood.

For the purpose of this thesis, I would like to present my own personal point of view on how the housing patterns should be evaluated, which pattern I would prefer myself and also how I see the next step in terms of a design architect involvement three issues:

Issue #1 - Steps for housing patterns evaluation.

Issue #2 - Housing pattern selection, my own choice.

Issue #3 - Next steps to be taken by the Design Architect.

Issue #1: Steps for Housing Patterns Evaluation.

Pattern selection would be the most important decision in the entire future project development. It is my understanding that the evaluation process would have to be based on clearly structured methodology, aimed at the evaluating team representing all involved in the subject project: users of the facility (residents, staff, management); financing institutions; developers; city planners; governmental agencies (Long-Term Care) and also local Community Leaders. Evaluation should be based on rating so the final conclusion could be easily arrived at.

The development of citeria to be used in the evaluation process, has to be based on Chapter 3 of this thesis - the CCC Facilty Objectives (five groups).

It is not the intention of this thesis to develop detailed evaluation cirteria of housing patterns but only to indicate the process, which may be used by the evaluating team.

One of the most important citerion in the evaluation of CCC Facility Housing Patterns is the Quality Environment. I would recommend the following evaluation steps which would appraise the following critical issues:

Step #1: A Quality Environment in terms of:

1. Increased opportunities for individual choice in the CCC physical setting.

2. Improved comprehension and orientation in the new environment - wayfinding has been promoted.
3. Encouraged social interaction.
4. Provided opportunities for individual privacy.

Step #2: Safety and Security

1. Level to which outdoor common areas used by residents have been enclosed within clusters.
2. How successful a clear transition from neighbourhood public space to private space has been achieved.
3. How effective is the site planning in terms of clearly defined edge conditions such as fences.

Step #3: A Variety of Environments

A combination of different environments for the elderly should include:

1. A 'home-like' environment in the dwelling clusters at all levels of care.
2. A 'social community' environment in the amenity areas and outdoor activity centre.

Step #4: Social Needs

The potential of a pattern to create a strong community feeling by providing a physical environment which will facilitate social interaction.

Issue #2: Housing Pattern Selection - my own choice.

It is my personal belief, that Pattern #2 representing separation of the independent living quarters and integration of the Intermediate and Extended Care quarters, should be implemented in the proposed Continuum of Care Complex in Point Grey.

In making my own evaluation (note: this is only architect's point of view) I used the following criteria (C=Criterion) listed below as the critical issues:

C#1 This pattern has the greatest potential to create a quality environment by:

1. Increasing opportunities for individual choice in the CCC physical setting.

For example, a separate Independent Living zone would provide opportunities to create a choice in living arrangements such as townhouses or multiple dwelling units. The clustered Intermediate and Extended Care facility with the Core Centre would increase also opportunities for individual choice. Its residents would change very easily (a relatively short distance to the Core Centre) their "home-like" environment for a "social community" environment.

2. Improving comprehension and orientation (to promote wayfinding).

The separate Independent Living zone would allow to implement a cluster pattern which promotes a wayfinding. Similarly, the clustered long-term care facilities with the Core Centre

may significantly improve comrehension and orientation in the environment. A direct connection with the Core Centre would facilitate a wayfinding not only for long-term care facility residents, but also for Independent Living residents, as this pattern may clearly absorb a 'feeder system'-the CCC circulation network.

3. Encouraging social interaction between residents and visitors.

This housing option, by providing possiblity for residential cluster pattern, would promote social interaction between residents. It would also create an opportunity for designing outdoor common areas in close proximity to the residential zones and consequently provide further opportunities for social interaction.

4. Providing opportunities for individual privacy:

The cluster pattern would provide opporunities for individual privacy e.g. private outdoor spaces.

5. Providing safety and security.

The outdoor common areas used by residents would be enclosed within safe residential clusters. The main pedestrian walkways could be easily laid out to allow for visual surveillance by residents and staff (feeder system).

C#2 This pattern would easily achieve one of the major thesis objectives to create a strong community feeling.

1. The site plan implementing this housing pattern would foster community feeling. The proximity to the Core Centre from long-term care residential clusters, may provide older people with the feeling of belonging to the CCC community.
2. The clustered residential components may be easily designed to facilitate social interaction and also to diminish the stereotype of "old-folks home" institutional character.
3. The Core Centre with the Main Concourse component, could be designed as a very attractive architectural environment. A place which may be appealing for many residents from the Point Grey community.

C#3 This pattern may easily centralize all supportive services, but at the same time, maintain home-like environment in the entire CCC facility.

1. By clustering the long-term care facilities, and the Core Centre, a reduction in supportive services, staff, and services may be expected. This in turn, would lead to the operating cost reduction of the entire CCC facility.
2. This pattern would allow for easy access for the long-term care residents, as well as staff, to all centralized services in the Core Centre.

C#4 Neighbourhood Development Objectives as discussed in Chapter 3, of this thesis, could be achieved in the most satisfactory manner.

1. Pattern #2 would allow to maintain livability, privacy and a

sense of community. The Independent Living residential clusters, as well as the long-term care facilities, would provide high levels of livability. The long-term care facilities, combined with the Core Centre, would reinforce a sense of community.

2. This pattern would easily allow for creation of a cohesive neighbourhood character and achieve visual compatibility with the surrounding housing. The Independent Living zone, with one storey townhouses may be located along 8th Avenue to comply with single-family homes, while BCMHC rental housing may be located along Highbury Street, where multiple-unit housing is dominat. The clustered long-term care facility, with the Core Centre, would provide visual compatability with existing housing located along 4th Avenue.

3. This pattern would contribute better to streetscape character than others. The Core Centre which may be located at the corner of 4th Avenue and Highbury Street. would create an extension of an existing commercial shopping and service development, while long-term care facilities may create residential character further to the West, along 4th Avenue or on Highbury Street. The Independent Living would very easily provide building treatment that complements development on adjacent sites and would create visual rhythm.

4. This housing pattern would take the biggest advantage of the existing views. For example, the Independent Living clusters

located on the southern part of the site would have a private view of the mountains and Downtown while long-term care facility, as well as outdoor common spaces, located in the northern part of the site may have a view of the mountains and Jericho Beach Park.

5. This housing pattern would allow for development of the project in stages, as well as, would allow for an easy future extension. In addition, this pattern would allow for space flexibility within long-term care clusters and the Core Centre.

Issue #3: Next steps to be taken by the Design Architect.

The facility program developed in this thesis has been presented as a Hypothetical Model of a programming system. Although this Model has been developed in the real situation of the Point Grey Community, on a selected site, nevertheless, its purpose is theoretical. The major Part in any development process - The Client/Sponsor is missing. Therefore, in order to suggest any steps to be taken by the Design Architect, a number of assumptions have to be made. These assumptions are necessary, because it's not the Architect, but the Client, who makes the project reality.

Assumptions:

1. The Client's organization e.g.: "The CCC of Point Grey Society" has been established, by consisting of the Board of Directors, Building Committee, and Clients' Representative.

2. The Client has arranged for the financing of the entire project which includes purchase of property and arrangement for finances.
3. The Client has obtained the Housing Patterns Evaluating Team, made-up of diverse users and professionals (see Issue #1).
4. The Client has arranged for the feasibility study with the major objectives:
   - to determine and confirm the actual demand (at the time of a project construction and until the year 2000) and need for the specific range of facilities and services stipulated in the CCC facility program.
   - to identify clearly the target population, level of services and building forms for each type of elderly group.
   - to analyze options of a project delivery methods (phased construction; project or construction management and building forms).
   - to analyze the actual (at the time of a project construction) socio-economic and health care characteristics of elderly population and their preferences/needs regarding combination of tenure, building forms and on site services.
   - to consolidate actual demographic information on the size and growth of the target population of Point Grey, Vancouver and province wide.

- to identify and determine the size of the gap between independent living and long-term care facilities (see Chapter 1 - 1.2.1) with the target population.
- to provide a cost effectiveness analysis of the capital and operating costs of the proposed facilities and the housing patterns, comparing costs to the existing seniors' housing, BCHMC rental housing, and long-term institutional care.
- to compare staffing feasibility of each option.
- to make detailed recommendations for the Facility Program implementation, including funding arrangements.

5. The Housing Pattern has been selected and the Design Architect (or Architectural Firm) has been appointed.

Assuming that the above listed major organizational structures have been established, and major executive decisions reached, it would be proper at this time, for a Design Architect and his Consultants to start work in the following sequence:

Step 1 - Predesign Stage

Step 2 - Schematic Design

Step 3 - Design Development

Step 4 - Construction Documents: Working Drawings and Specifications.

Step 5 - Bidding or Negotiation

Step 6 - Contract Administration on behalf of the Client at the actual Construction

Step 7 - Post Construction Project Inspections

FINDINGS AND THESIS CONCLUSION

This thesis has been developed as a research cycle based on 3-phase scientific methodology of analysis, synthesis and evaluation (Introduction, p. 7).

Phase 1 of the Thesis - Analysis

Scope of Research:

Research at this phase was carried out in two distinctive directions. Firstly, an overview of the existing trends in contemporary facilities for the elderly with emphasis on the multilevel approach (General Background of the Thesis). Secondly, an analysis of elderly housing options and services in Vancouver West side in general and West Point Grey in particular (Specific Background of the Thesis).

Finding #A1:

"Time" becomes the paramount factor in the entire programming and design process for the elderly. Time means that everything in this process is dynamic, not static and the program should reflect this phenomenon. The Architect should plan and design not for a specific group of people, but for the elderly who will have a variety of needs difficult to classify at one point of time. Therefore, the "time" factor must be addressed on the principle of flexibility, adaptability and the continuum of care.

Finding #A2:

The notion of multi-level of care of the elderly continues to gain momentum. According to the Canadian Medical Association, the provision of a continuum of care, with the various elements blending together, should be the underlying principle in planning services for the elderly (Ch. 4, 4.2.).

Finding #A3:

There is a real need in West Point Grey area for a multi-level facility with graduation of care organized and delivered in one setting (Ch.2, 2.3.6).

Finding #A4:

Contemporary seniors expect more than their predecessors in terms of quality lifestyle. They are more educated, healthy and more sophisticated in their expectations. They are looking for an attractive, natural environment where they can enjoy: recreation, health protection, security, leisure and retreat, cultural activities and companionship (Ch.2, 2.1.5. Feature #4).

Finding #A5:

The major constraint resulting in moving the elderly person from his/her home to the facility is relocation stress. Moving is a traumatic experience and if done involuntarly, may have negative psychosocial consequences and decrease physical health (Ch.3, C.O. #1).

Finding #A6:

Seniors would be willing to move to the facility if such a facility could provide them with the possibility of continuation of their lifestyle in terms of residential quality, health care services and a social network of their choice (Ch.2, 2.2.2.).

The analysis part of this thesis concludes in Chapter 3 by developing the major objectives for the facility program. They have been based on findings and structured to the Hypothetical Model of the facility program. The CCC Facility Objectives have been consolidated into five groups:

Group 1 - Living Environment Objectives which address the issue of a safe and quality environment.

Group 2 - Residents' Objectives which concentrate on three basic issues: tenure choice, health care and social needs.

Group 3 - Facility Management Objectives which although emphasizing the importance of centralization of supportive services, nevertheless stress also the need for independence, personalization and varied physical environment.

Group 4 - Community Objectives explain a need for successful and smooth relationships between the CCC facility and the Point Grey Community.

Group 5 - Neighbourhood Development Objectives are very important for the architectural concept of the CCC

facility and have been presented in the form of design quidelines.

Research and findings in this Phase gave grounds to the following major conclusions:

Conclusion #A1:

In order to satisfy the elderly's unique needs the CCC facility has to create a quality environment which will:

1. Increase opportunities for individual choice in the CCC physical setting.
2. Minimize dependence and instead encourage personal independence in use of the CCC facility.
3. Reinforce the individual level of competency by providing environmental support.
4. Compensate for sensory and perceptual changes.
5. Foster comprehension and orientation in the new environment.
6. Encourage social interaction between residents (and visitors).
7. Stimulate participation in activities.
8. Provide opportunities for individual privacy.
9. Improve the public image of the elderly.

Conclusion #A2:

In terms of continuation of the elderly person's lifestyle, the residents have to be provided with choice to satisfy their needs: residential, health care and social.

Conclusion #A3:

The CCC facility has to be programmed as being a part of the Point Grey Community but not as an isolated island for its residents only.

Phase 2 of the Thesis - Synthesis

Scope of Facility Programming

In this phase I continued an "architectural investigation" which focused on "facility programming" for an innovative approach to a Continuum of Care Facility (Ch.4 & 5).

The approach I have assumed had two distinctive features:

Alternative Approach:

1. which means that the CCC provides progressive care:
   a. continuum of care system from Independent Living to Extended Care,
   b. continuum of living environment ("home like").
2. provide an opportunity for a choice in terms of:
   a. living arrangements - tenure, physical environment
   b. personal services - the Core Centre
   c. social services - the Core Centre
   d. health care services - the Core Centre
3. sensitive design i.e.: living units in the Long Term Care Clusters, issues: wayfinding, community feeling.

Innovative Approach:

A new methodology has been introduced into the programming process:

1. space flexibility: a dynamic not static model in the Intermediate and Extended Care portion by assuming a cluster arrangement.
2. the Core Centre with its program components can be easily changed according to the actual needs of the elderly, i.e.: Arts & Crafts (different activities), Auditorium and Programs or Clinic may be expanded.
3. the Long Term Care Facility may be expanded by providing a new cluster for additional patients or by providing special Care for Alzheimer's patients.

Conclusion #S1:

The CCC facility may create a quality environment through four major functional components: residential, long-term care, community-services and outdoor activity spaces.

Conclusion #S2:

The underlying principle in planning housing and services for the contemporary elderly has to be based on the continuum of care including the following features:

1. Residential cluster pattern (Ch.5, 5.1.2.).
2. Cluster identity (Ch.5, 5.1.2.2.).
3. Sense of security (Ch.5, 5.1.2.3.).

4. Opportunities for social interaction (Ch.5, 5.1.2.3.).
5. Accessibility to all facilities.
6. Privacy (Ch.5, 5.1.4.3.).
7. Home-like atmposphere in all types of facilities:
   - Independent Living (Ch.4, Introduction).
   - Intermediate Care (Ch.5, 5.2.2.)
   - Extended Care (Ch.5, 5.3.2., Issue #3).
8. Sense of residency (Ch.5, 5.2.2., Issue #1).
9. Space Flexibility (Ch.5, 5.2.2., Issue #2).
10. Wayfinding (Ch.5, 5.1.2.3., 5.2.2., Issue #3).

The above noted underlying principle for housing the elderly can be summarized briefly: to provide a quality environment for the elderly which will be a continuation of the environment they were living in so far and which will provide all necessary supportive facilities in terms of social, emotional and health care need.

Conclusion #S3:

The Core Centre with its services becomes the paramount functional component in creation of the quality environment for the elderly and also an important and necessary link with the rest of the community. It is the Core Centre, which plays the significant role in the creation of a cheerful, pleasant, secure and friendly atmosphere in the CCC environment. Also, it is Core Centre which has to serve the residents of the CCC and the

entire community: Rehabilitation Centre, Clinic, Pharmacy, Main Concourse, Food Services, Food Fair, Arts and Crafts, Library, Auditorium and Indoor Recreation Programs.

The Core Centre comprised of 15 major functional components, each of them including several activity centres, has to respond effectively to elderly's needs by creating specific ambiance. Some of the program features specially important to achieve this objective are:

1. Winter Garden - Conservatory (5.4.1.2.a)
2. Location of Mail Boxes (5.4.1.2.b)
3. Food Fair - Dining (5.4.2)
4. Rehabilitation Centre with Swimming Pool, Sauna, Whirpool, Bar, Fitness & Dancing Club (5.4.4)
5. Arts and Crafts (5.4.5)
6. Auditorium and Special Programs (5.4.5)
7. Library (5.9.10)

Conclusion #S4:

The specially designed Facility Common Outdoor Space brings a significant contribution to the well-being of the elderly. This program component provides stimulation, enhances residents' self-esteem and creates an opportunity for social interaction and integration with the Point Grey Community. It provides for a "therapeutic park" designed to meet the needs of the physically frail and garden plots for those interested in horticulture.

Phase 3 of the Thesis - Evaluation

Scope of Investigation

In the last and final phase I have investigated how successfully the Program can be implementated on the test site and what opportunities and constraints exists. Furthermore, I have elaborated Design Guidelines and Recommendations on how the Program Objective could be met in a given real situation. I have concluded by providing alternative Housing Development Options in four patterns. Findings refer to the Site Analysis. Conclusions refer to the feasibility of Program implementation.

Finding #E1:

The "Federal National Defence Lands", the test site, provides a number of opportunities for successful program implementation:

1. Complies with the area plan policy of the Vancouver Planning Department.
2. Ensures a beautiful setting and vast land.
3. Is located close to commercial outlets: 4th Avenue, Alma & Broadway.
4. Is located close to recreational amenities: Jericho Beach, Jericho Tennis Club, Royal Vancouver Yacht Club.
5. Is in proximity to the University Hospital, UBC Site.
6. Is close to public bus transportation.
7. Has a varied topography providing magnificent views.

8. Is a "green oasis" in the Point Grey Area with substantial quantities of trees and shrubs.

Finding #E2:

The test site poses some constraints which have to be overcome in order to implement the program successfully:

1. Heavy traffic and noise from 4th Avenue.
2. Steep slope of the site in the southwest area.
3. Need for a pedestrian overpass to Jericho Beach Park.

Conclusion #E1:

The subject site would make a perfect place for the future development of a facility for seniors. This site offers several advantages such as a location in the core of the Point Grey residential area, easy access to shopping and community services, walking distance to park and public recreational facilities as well as proximity to U.B.C.

Conclusion #E2:

The site area (51.47 acres) is an excellent place for successful program implementation now and for the future expansion.

Conclusion #E3:

The site and its location has a great potential for easy to achieve architectural character compatible with the surrounding neighbourhood.

General Thesis Conclusion

This Thesis has developed a hypothetical model of the Continuum of Care Complex in terms of a facility program in the real situation of the Point Grey Community on the selected test site. A "Continuum of Care" environment for the elderly has been defined in terms of a program of housing as well as personal, social and health care services available on one site. That environment, which could be successfully developed and implemented on the subject site, may satisfy a broad range of needs for the elderly: physical, physiological and sociopsychological.

REFERENCES

A Gentle Echo. Architectural Record. 1980, Nov., p.120.

Advance Planning and Research for Architecture, APRA. 1982. Facilities Program for the George Derby Long Term Care Society. Vancouver, B.C.

Aging Population Increases Housing Pressure. The Courier. Vancouver: April 2, 1989.

Alexander, Christopher et al. 1977. A Pattern Language. New York: Oxford University Press.

B.C. Hospital Program. 1988. Extended Care Design Guidelines. Victoria, B.C..

B.C. Regulation 536/80. 1980. Community Care Facility Act.

Berger, E., R. Godin, and A.C. Harvey. 1986. Older Canadians: Housing Market Characteristics and Demand. In G.M. Gutman and N.K. Blackie ed. Aging in Place - Housing Adaptations and Options for Remaining in the Community. Burnaby, B.C. Gerontology Research Centre. Simon Fraser University, pp. 49-69.

Burris-Mayer, Harold and E. Cole.1975. Theatres and Auditor iums. New York: Robert E. Krieger Publishing Co.

Bustat, Leo K. 1980. Animals, Aging, and Aged. Minneapolis: University of Minnesota Press.

Canada Mortgage and Housing Corporation. Housing Choices for Older Canadians, NHA 6009.

Canada Mortgage and Housing Corporation. 1983. A Home Selection Guide. NHA 5179 83/11

Canada Mortgage and Housing Corporation. 1979. Nursing Homes and Hostels with Care Services for the Elderly: Design Guidlines. NHA 5267.

Canadian Medical Association. 1987. Health Care for the Elderly: Today's Challenges, Tomorrow's Options. Department of Communications and Government Relations, Canadian Medical Association.

Carp, Frances. 1987. The Impact of Planned Housing. In Regnier, V. and J. Pynoos. ed. Housing the Aged: Design Directives and Policy Considerations. Elsvier Science Publishing Co.,Inc. pp. 57-79.

Carstens, Diane Y. 1985. Site Planning and Design for the Elderly - Issues, Guidelines and Alternatives. New York: Van Nostrand Reinhold Co.

Centre for Continuing Education. 1986. Housing Information for those Approaching Retirement. Vancouver, U.B.C.

Champagne J.R., and S. Brink. 1985. Building Practice Note: Designing Homes for the Aged. National Research Council, Canada.

City Planning Department. 1979. Understanding Vancouver's Housing, Part IV(a): "Affordable Housing" Who Requires Assistance? Vancouver City Hall.

CJP Architects Calberg Jackson Partners. 1987. St. Vincent's Extended Care Hospital - Space Program.

Cluff, Pamela. 1978. Housing for the Elderly. In Carter Novia ed. Aging in Canada. Eaton Hall, King Seneca College, Ontario, Oct.

De Chiara, J. and J. Callander. 1980. Time Saver Standards for Building Types. New York: McGrow-Hill.

De Chiara J. and Lee Koppelman. 1978. Site Planning Standards. New York: McGrow-Hill.

Ernst & Whinney. 1987. Continuing Care Retirement Communities: An Industry in Action. Washington, DC: AAHA Publications.

Gardiner Thornton Partnership, The. 1975. St. Michael's Centre Functional and Space Program.

_____. 1970. Burnaby General Hospital Program for Expansion.

Gaskie, Margaret. 1988. A little Help: Housing for the Aging. Architectural Record, April: pp. 98-106.

Green, Isaac et al. 1974. Housing for the Elderly Development Process. The Michigan State Housing Development Authority.

Green, Kevin W. 1985. Desing for Aging. Architectural Technology. pp.34-37.

Gruffydd, Bodfan. 1967. Landscape Architecture for New Hospitals. King Edward's Hospital Fund for London.

Gutman, Gloria M. 1976. Senior Citizen's Housing Study Report No.2: After the Move - A Study of Reaction to Multi and Uni-Level Accommodation for Seniors. Vancouver, B.C.: University of British Columbia.

_____. 1983. The Long Term Impact of Multi-level, Multi-service Accommodation for Seniors. SFU: Gerontology Centre.

_____. 1988. Continuum of Care Retirement Communities in the Canadian Context: a Note of Caution. Paper presented at the CMHC National Conference "Options: Housing for Older Canadians" Halifax, October 17-20

_____. 1988. Focus Group Study of Seniors' Reactions to New Vista's Community Concept. SFU: Gerontology Research Centre.

_____, ed. 1982. Canada's Changing Age Struc-ture: Implication for the Future. Burnaby, B.C.: Simon Fraser University.

Gutman, Gloria M. and Norman K. Blackie ed. 1986. Aging in Place, Housing Adaptations and Options for Remaining in the Community. Burnaby, BC: Gerentology Research Centre, Simon Fraser University.

Gutman, G., S. Milstein, and V. Doyle. 1987. Attitudes of Seniors to Special Retirement Housing, Life Tenancy Arrangements and Other Housing Options. Canada Mortgage and Housing Corporation, November.

GVRHD, Extended Care Subcommittee. June 1987. Regional Geriatric Care Planning Model for the Greater Vancouver Regional Hospital District.

Hausjarvi Health Centre and Old People's Home Design Competition. Arkkitehtuurikilpailuja. 1987, 2, pp. 17-18.

Hogland, David J. 1985. Housing for the Elderly: Privacy and Independence in Environments for the Aging. New York: Van Nostrand Reinhold Co.

Jordan, Joe. 1978. Senior Center Design. Washington D.C.: The National Council on the Aging.

Katchner, Aaron H. 1982. Are Companion Animals Good for Your Health. Aging, (Sept.-Oct.), Nos 331--332, 2-8.

Koncelik, Joseph A. 1976. Designing the Open Nursing Home. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross Inc.

Kotilainen, Heli. 1987. More Human Health Facilities. Results of an Architectural Competition. World Hospitals, vol. XXIII, Nos. 3 & 4, October.

Lawton, Powell M. 1986. Environment and Aging. Albany, New York: Center for the Study of Aging.

McAfee A., and L. Donegani. 1985. Elderly Homeowners and Family Housing. Quarterely Review (12,4), October, pp.6-8.

Mecca Ventures International Ltd. 1988-1989. Community Resource Directory for Seniors. Westbound Publishing House Ltd.

Murray, Charlotte. 1989. Supportive Housing for Seniors: the Elements and Issues for a Canadian Model. Research Division Canada Mortgage and Housing Corporation.

Northwood Multi-Purpose Centre, Physical Facilities Data List. Halifax, Nova Scotia.

Palmer, Mickey. 1981. The Architects' Guide to Facility Programming. The American Institute of Architecture, New York.

Pastalan, Leon A. 1984, ed. Retirement Communities: An American Original. New York: The Haworth Press.

Patric, Thomas. 1971. Selected Rehabilitation Facilities in the United States. Washington D.C.: U.S. Department of Health, Education and Welfare.

Priest, Gordon E. 1985. Living Arrangements of Canada's Elderly: Changing Demographic and Economic Factors. Burnaby, B.C.: Gerentology Research Centre, Simon Fraser University.

Putsep, Ervin. 1979. Modern Hospital - International Planning Practices. London: Lloyd-Luke Ltd.

Rebalski, Nick. 1988. Zoning fight sparks fear of seniors' housing shortage. The Vancouver Sun, September 17.

Regional Geriatric Care Planning Model for the Greater Vancouver Regional Hospital District. 1987. Extended Care Subcommittee of the GVRHD, June.

Regnier Victor and Jon Pynoos. 1987. Housing the Aged: Design Directives and Policy Considerations. New York: Elservier Science Publishing Co.

Reizenstein Carpman, Janet et al. 1986. Design that Cares. American Hospital Association.

Rogers, Maureen H. 1987. Northwood Incorporated A Case Study in Community Development. Research Paper -Education 7974B. Dalhousie University, March.

Rush, Richard. The Age of the Aging. Progressive Architecture, No. 8, 1981, pp. 59-63.

Seaton, Richard W. and Mirunlini Rajan. 1987. Review of age - sex - specific characteristics of the Canadian population. Unpublished draft.

Shack, Joel and G. Friedman. 1977. Residential Open Space Design Manual. Prepared for the City of Toronto Housing Department, November.

Tate, Jeremy. 1987. Long Term Care Facilities Overview and Trends. Prepared for Retirement Housing Course Held October 29,1987. The University of British Columbia, Centre for Continuing Education.

Taylor, Sylvia. ed. 1978. Horticulture as Therapy. Technical Biuletyn No. 9, October. The Botanical Garden: The University of British Columbia.

Unger, Harlow. 1988. University towns show building boom. Canadian Building, January-February, p.3.

Welch, Polly, V. Parker and J. Zeisel. 1984. Independence Through Interdependence Congregate Living for Older People. Boston: Department of Elder Affairs.

Vancouver Health Department, Continuing Care Divison. 1986. Annual Report. Vancouver City Hall.

Zeisel, John. 1977. Low Rise Housing For Older People. Washington D.C.: U.S. Government Printing Office.

Zelver, Alvin. 1976. Model for Planning a Special Neighbour hood. In Lawton, Powell ed. Community Planning for an Aging Society. Pennsylvania: Dowden, Hutchinson & Ross Inc. pp. 200-220.

APPENDIX #0-1

Province of British Columbia,
Ministry of Health
Continuing Care Division
Long-Term Care Program

Care Level Definitions

Levels of Care

The classification system used by the Long-Term Care program to describe individuals with similar types of health care needs consists of three major groupings - Personal Care, Intermediate Care, and Extended Care. Within these groupings, Intermediate Care has been further divided into levels I, II, and III. These care levels move in a progression from lighter care requirements of Personal Care, through the Intermediate Care levels to the heavier care requirements of Extended Care. Briefly summarized, the care levels are:

Personal Care

This level of care recognize the individual who is independently mobile, with or without mechanical aids, and whose primary need is for minimal non-professional supervision and /or assistance with the activities of daily living for the purpose of achieving or maintaining maximum personal independence in everyday activities.

Intermediate Care

The three Intermediate Care levels build on the Personal Care level and recognize a need for care planning and supervision under the direction of a health care professional by introducing a combination of professional and non-professional (lay) supervision. This professional supervision is required on a daily rather than a twenty-four hour basis. Individuals at the Intermediate Care levels are ambulant with or without mechanical aids.

Intermediate Care I

This level of care recognizes the individual who is independently mobile with or without mechanical aids, requires moderate assistance with the activities of daily living, and who requires daily professional care and/or supervision.

Intermediate Care II

This level of care recognizes heavier care and/or supervision requiring additional care time.

Intermediate Care III

This level of care primarily recognize the individual who exhibits severe behavioural disturbances on a continuing basis

and who presents a significant mangement problem.
This level also recognize the individual who has very heavy care requirements which reqire significant staff time to manage. In both instances, this level of care requires considerable supervision and/or assistance under the direction of a health care professional.

Extended Care
This level of care recognize the person with a severe chronic disability which has usually produced a functional deficit which requires twenty-four hour a day professional nursing services and continuing medical supervision, but does not require all the resources of an acute care hospital. Most persons at this level of care have a limited potential for rehabilitation and often require institutional care on a permanent basis.

APPENDIX #0-2

Analysis of the existing facilities for the elderly with different levels of dependency.

The facilities are:

1. PARKWOOD MANOR - Congregate House (Hotel Type) - Personal Care, Coquitlam, B.C. - case study.

2. HOLLYBURN HOUSE - Personal Care and Intermediate Care Facility, North Vancovuer, B.C. - case study.

3. EXTENDED CARE UNIT OF UNIVERSITY HOSPITAL, UBC SITE, Vancouver, B.C. - case study.

4. SOUTH GRANVILLE PARK LODGE, Vancouver, B.C. - Personal and Intermediate Care Facility - case study.

5. MOTION PICTURE AND TELEVISION COUNTRY HOUSE AND HOSPITAL in Woodland Hills, California - Multilevel Care Facility.

6. REGENTS POINT, Southern California Presbyterian Homes - Multilevel Care Facilities.

7. SAN RAPHAEL COMMONS, San Raphael, California - the Independent Living Housing.

8. ST. MICHAEL'S CENTRE, Burnaby, B.C. - Intermediate and Extended Care Facilities.

9. NORTHWOOD MULTI-PURPOSE COMPLEX, Halifax, Nova Scotia.

10. KOPERNIK LODGE - Personal and Intermediate Care, Vancouver, B.C.

11. SETON VILLA, North Burnaby, B.C. - Independent Living and Personal Care.

12. SUNNY MANOR, White Rock, B.C. - Independent Living and Intermediate Care.

APPENDIX #0-3

List of people Interviewed on the subject of my thesis:

1. City of Vancouver, Vancouver Health Department:
   Mrs. Barbara Parson, Rehabilitation Consultant Continuing Care Division.

2. City of Vancouver, Planning Department:
   Mr. Keri Huhtala, Senior Planner
   Mr. John Winsor, Senior Planner.

3. City of Vancouver, Transportation Branch, Engineering Dept.:
   Mr. Ron Slett,

4. International Care Corporation-Intercare
   Mr. Walter Steininger, Vice President.

5. BC Long Term Care Association:
   Mrs. Lilian Moreton, Executive Director.

6. Vancouver West Side Health Department:
   Ms. Leslie Tylor, Coordinator.

7. West End Health Service Centre:
   Ms. Bev Marshall, Nurse in residential care facility (Sunset Towers, 1655 Barclay Street).

8. South Granville Park Lodge - PC and IC FAcility in Vancovuer:
   Mr. Ed Zinkevich, Administrator.

9. St. Michael's Centre - IC and EC Facility in Burnaby:
   Mr. Gerald Herkel, Executive Director.
   Mr. Michael Garrett, Architect - Gardiner Thornton Architects.

10. Brock House Society - Day-time Activity Centre for Seniors in Point Grey:
    Mrs. Irene Ovenden, Executive Coordinator.

11. Hollyburn House - PC and IC Facility in North Vancouver:
    Mr. Alex Coruth - Laing Property Ltd.,
    Mr. J.Doll, Architect - Neale, Staniszkis, Doll Architects
    Mr. Kim Perry, Landscape Architect.

12. Parkwood Manor - Congregate House in Coquitlam:
    Mr. Stu Lyon, Architect - Waisman Dewar Grout Carter Architects.
    Mr. Randall Sharp, Landscape Architect.

13. Kopernik Lodge:
    Ms. Irena Donlon, Administrator.
    Mrs. Hanna Freyman, Resident.

APPENDIX #0-3

14. University Hospital, UBC Site, Extended Care Unit:
    Ms. Rose Murakami, Assistant Administrator and Chief Nursing Officer.
    Ms. June Nakamoto, Director Nursing Services.
    Mrs. Karen Vagelatos, Landscape Architect.

15. Seton Villa - PC and IL Facility in North Burnaby:
    Mrs. Donna Kerr, Administrator.

16. Sunnyside Manor - IC and IL Facility White Rock:
    Mr. J. White, Owner.

17. Mr. & Mrs. Leon and Diane Kowalczyk - senior residents in the Point Grey area and several senior citizens in Vancouver.

18. British Columbia Housing Management Commission
    Mrs. Donna McRirick, Coordinator.

APPENDIX #0-4

Existing Legislation and Guidelines:

1. B.C. Reg. 536/80 Community Care Facility Act.

2. Hospital for Extended Care: A Program and Design Guide, Hospital Programs, Ministry of Health, Victoria, B.C., 1989

3. Occupational Environment Regulations, Workers' Compensation Board of British Columbia, Richmond, B.C. 1974.

4. Housing the Elderly, Canada Mortgage and Housing Corporation, 1983.

5. Nursing Homes and Hostels with Care Services for the Elderly - Design guidelines, Canada Mortgage and Housing Corporation, 1979.

6. Housing an Aging Population, Government of Canada, National Advisory Council on Aging, 1987.

7. Housing for Elderly People, Canada Mortgage and Housing Corporation, 1987.

8. BCMHC Design Guidelines for Family and Senior Housing Appendix 2.

APPENDIX #2-1

1. HOUSING CONDITIONS

The statistical data reported below is based on the research paper "Review of age - sex - specific characteristic of the Canadian population" R.W. Seaton and M.Rajan, 1987 (unpublished draft).

CANADA (1982)

A. Senior Canadians are homeowners:

65% of the households heads aged 65 and over own their homes
75% of all men aged 65 and over own their homes
50% of all women aged 65 and over own their homes

As the age increases past 65 homeownership drops:

56% of seniors aged 80 and over own their homes

But a mortgage declines as age advances:

95% of heads aged 80 and over had paid off their mortgages.

B. Dwelling Types:

75% of all homeowners have a single family detached home.
60% of all seniors live in such above noted homes
12% of the elderly live in apartments (5 storeys and more)
25% of the elderly live in multiple dwellings
3% as above in mobile homes

C. Collective Housing: (1981)

20% of women aged 75 and over: single women the largest group
13% of the men as above
Past the age 65:
79% of women and 73% of men living in collective dwellings lived in nursing homes
Past the age 75:
80% of both sexes living in collective dwellings lived in nursing homes

BRITISH COLUMBIA: (1981)

A. Home Ownership:

66% of the elderly owned their homes

As the age increases past 65 - home ownership drops but even then 56.5% of seniors 75 and over own their homes.

B. Dwelling Types:

56% of household headed by person aged 65 and over have a single family detached dwelling
22% as above live in apartment bldg (less than 5 storey)
11% as above live in apartment bldg (high rise)
5.5% as above: in multiple housing
5.5% as above: in mobile homes

Note: in the period 1971 to 1981: the % of BC elderly population 65 and over living in single detached dwellings decreased from 64.6% to 56.2%. One of the reasons was the increase in the stock of multiple and attached dwellings (condominiums).

2. INCOME LEVELS

CANADA (1980)

A. Variation of income levels between males and females:

. 65-69 age group: the median income for males was more than twice that for females

70 and over: medium income for males: $ 3,792
as above for females: $ 2,659

However, considering the flow of non-cash benefits per person (e.g. housing) it is much greater to females than males.

Result: money income alone do not provide an adequate basis for comparison.

B. Family Incomes: (1981)

50% of families headed by person aged 65 and over had income under $ 15,000 (median income for this group) Non-cash benefits, such as senior citizen disconts and subsidized housing and health care, contribute to the economic well-being of many senior citizens, however older unattached individuals (those living alone) are especially in difficult financial position:

57%of them had income less than $ 7,000.

BRITISH COLUMBIA: (1980)

54% of families headed by person aged 65 and over had incomes under $ 15,000

69.3% of older unattached persons had incomes less than $ 8,000

75% of above group are females

3. RESOURCES AND SERVICES AVAILABLE TO THE SENIORS.

In order to depict the full picture of the contemporary elderly, it is necessry to review briefly the available resources and services as a suplement to the previously described: Housing conditions and income levels. As an example, I have selected the existing senior programs, available to those living in West Side Vancouver (Community Resource Directory for Seniors, Summer 1988-1989).

A. Health Resources and Health Assistance:

1. Medical Services Plan of BC: covers most medical, surgical and diagnostic services
2. Hospital Care: in-patient, out-patient, day and emergency treatment
3. Pharmacare: seniors pay 75% of dispensing fees; Pharmacare card is used to obtain: prescription drugs, ostomy supplies, insulin, permanent prosthetic appliances
4. - Long-Term Care Program: provides for care in:
   - own home
   - intermediate care unit
   - adult day care centre
   - extended care unit

   service include:

   Homemaker Service: in senior's own home (assistance with daily activities)

   Respite Care: relief service for care giver

   Adult day Care:supervision of health needs

   residential Care Services: care facilities

5. Home Care:
   Nursing Services - professional nursing care
   Physiotherapy Services: due to chronic health condition
   Other e.g. : Speech Therapy
6. Home Support Services:
   Meals-on-wheels
7. Short Stay Assessment and Treatment Centres
8. Veterans Independent Program

B. Housing Resources:

1. Social Housing resources: (average rents less than 30% of gross household income)
   Affordable Housing Advisory Association
   B.C. Housing Foundation
   B.C. Housing Management Commission
   Canada Mortgage and Housing Corporation
2. Co-operative Housing: members owing share of total project not individual units
   Access Building Association
   Affordable Housing Advisory Association
   Canada Mortgage and Housing Corporation
   Columbia Housing Advisory Association
   Inner City Housing Society
3. Lowermainland Community Housing Registry Society - non-profit society helping people find reasonable accomodation
4. Residential Tenancy Branch - Provincial agency housing provincial jurisdiction over rented residential premises in B.C.
5. Shelter Aid for Elderly Renters - to assist eligible seniors with high rents
6. Programs helping seniorts to stay in their own homes:
   a. Home Equity Plans: homeowners can receive monthly income based on assessed value of their house
   b. Property Tax Deferral: until property is transferred or sold
   c. RRAP (Residential Rehabilitation Assistance): grants or loans to low income seniors requiring residential repairs
   d. Home Support Services
7. Senior Citizen's Repair Services: Low-cost minor home repairs

C. Federal Government Income Resources:

1. Old Age Security Pension: all Canadians over 65
2. Guaranteed Income Supplement: in addition to (1).
3. Spouse's Allowance to Old Age Security Pension
4. Canada Pension Plan: for those who contributed to the Plan.
5. Unemployment Insurance.
   Government of BC:
6. G.A.I.N. - Guarnateed Available Income for Need: age benefits to seniors living in BC (age 60 & over).
7. S.A.F.E.R. - Shelter Aid for Elderly Renters (see 13.5).

D. Organizations for Seniors:

1. B.C. Seniors' Games: organizing the seniors' games on an annual basis.

2. B.C. Old Age Pensioners Organization: political and social activities.
3. British Pensioners Association (Canada): British pensioners resident in Canada.
4. Council of Senior Citizen Organizations (COSCO).
5. Senior Citizens Association of B.C.: social & business.
6. Royal Canadian Legion: active in the welfare of its senior members.

E. Senior Centres:

1. 411 Senior's Centre Society; 411 Dunsmuir St.
2. The Brock House Society: 3875 Point Grey Rd.
3. DERA Senior Citizen Club: 9 E. Hastings St.
4. The Elders' Network: #105-2182 W. 12th Ave.
5. Kitsilano Neighbourhood House: 2325 W. 7th Ave.
6. South Granville Seniors Friendsip Centre Society: 1420 W. 12th Ave.
7. West Point Grey Community Centre at Aberthan: 4397 W. 2nd Ave.

APPENDIX #5-1

Table 5-1A
Independent Living Housing -- Comperative Analysis
Type of Units

NAME OF HOUSING	No. OF UNIT TOTAL	UNIT TYPES,NUMBER AND MIX PER CENTAGE			
		BACHELOR	1 BED	1 BED+DEN	2 BED
Group 1:					
AVONDALE CO-OP /SURREY/	70	--	--	18 (25%)	52(75%)
CEDAR CO-OP /SURREY/	84	--	--	34 (405)	50(60%)
Group 2:					
REGENT POINT /CALIFORNIA/	136	--	36(26%) a 58(43%) b	--	42(31%)
HOLLYBURN HOUSE /WEST VANCOUVER/	66	8(12.2%)	42(63.6%)	8(12.2%)	--
SUNNYSIDE MANOR /WHITE ROCK/	74	--	31(41.9%)	27(36.5%)a 16(21.6%)b	-- --
PARKWOOD MANOR /COQUITLAM/	123	--	115(93%)	--	8(7%)
SAN RAFAEL COMMONS /CALIF./	81	36(44.4%)	45(55.6%)	--	--
SETON VILLA /BURNABY/	77	14(18%)a 28(36%)b 7(10%)c	14(18%)a 14(18%)b		
Group 3:					
MAYFAIR HOUSE CONDO /P.GREY AREA/	81	--	35(44%)	--	46(56%)
THE CUMBERLAND CONDO /P.GREY AREA/	50	--	--	--	50(100%)

APPENDIX #5-1

Table 5-1B
Independent Living Housing -- Comparative Analysis
Size of Units

	SIZE OF UNITS			
NAME OF HOUSING	BACHELOR m2	1 BED m2	1 BED+DEN m2	2 BED m2
Group 1				
AVONDALE CO-OP	--	--	84	87
CEDAR CO-OP	--	--	83	84
Group 2				
REGENT POINT	--	48 a 57 b	--	86
HOLLYBURN HOUSE	49	58	62	80
SUNNYSIDE MANOR	--	45	64 a 60 b	--
PARKWOOD MANOR	--	57 a 58 b 55 c	--	61
SAN RAFAEL	46.5	54 a 60 b	--	--
SETON VILLA	33 a 36 b 44.5 c	50 a 63 b	--	--
Group 3				
MAYFAIR HOUSE	--	71	--	106 a 144 b
THE CUMBERLAND	--	--	--	108 a 133 b 156 c

APPENDIX #5-2

The Extended Care Unit of UBC Health Science Hospital

Architect - Paul Smith Associates
Landscape Architect - Torrence/Vagelatos Ltd. and
Paul Smith Associates.

1. Site context

The Extended Care Unit is located in the group of medical buildings in the central part of the UBC Campus. The medical facilities are bounded from East by Westbroook Mall and from North by the main entrance route - University Boulevard. The facility is located in the southern part of the complex and to the north there is an adjacent Acute Care Unit, to the East there is a neighboring Psychiatric Unit. To the South the facility looks to a huge open space while to the West there is a Health Science Mall.

2. General Space Concept

The five storey building comprises three ward wings and the central part with the main common space including nursing station, lounges, and the auxiliary facilities. On the Ground floor level there are lounges and a space for physiotherapy which overlook a small but a very pleasant garden to the South.
Between Extended Care and Acute Care buildings there is a 1.3 acre park which was originally created for the patients of both facilities by two different architectural and landscape architectural firms. The Patient Park was designed by Landscape Architect Karen Vagelatos while the small South Garden -patio was designed by Architects Paul Smith Associates.

South Garden - Patio

3. Design Decision and Objectives

a. provide a small but attractive outdoor open space for patients (wheelchair accessible)

b. provide special features for the activities of the elderly such as raised planters, sunny group activities area - checkerboard and shuffleboard

c. create garden on a slope rich in plant material

4. Analysis of Findings

The Architect has created on aprox 16000 s.f. area a very pleasant open space - patio for the patients from Extended Care Unit.

In spite of a difficult lot configuration and a cliff- -like steep slope, the architect has provided a patio - garden which is an extention of the building's ground floor area. The southern exposure and syncline character of the slope create a microclimate which helps to provide outdoor activities for the patients even during the winter. The space is small, bounded by two foot high wood retaining walls which at the same time serve as raised planters.

The patio area is finished with 12" x 12" concrete patio pavers. In the central part of the patio, there is a checkerboard. Close to the entrance, there are several small raised wood planters. Each of them is two foot high and 4'x 6' in size. However, the recommended width is 3'4" in order for people to reach the center of the bed.

The architects' idea was to provide a pleasant environment as well as outdoor activities for the elderly. Unfortunatelly, there is not much space for shuffleboard but a number of the elderly patients who are confined to wheelchairs can participate in a horticulture therapy program. Besides the raised beds, the patio has been recently enriched by a circular greenhouse, specially designed for the wheelchair patients.

The plant material on the slope is designed for the four-season cycle; however, the most attractive plants are annuals planted by the residents themselves.

The Patient Park

5. Design Decision and Objectives

a. create outdoor open space for patients of the Extended Care Unit and Acute Care Unit

b. provide many semi-private spaces connected to the common open space

c. create a water feature as visual interest

d. provide a loop around the waterfall

e. utilize an area of the park intensely

f. provide barrier-free design throughout

g. reduce impact of vehicular traffic on Health Science Mall

h. connect the Park area with the Extended Care Unit and Acute Care Unit

i. provide planters with raised beds

6. Analysis of Findings

The Patient Park is located on 1.3 acres adjacent to the west elevation of the Acute Care Unit and the north part of the Extended Care facility.

To the west, the park is bounded by Health Science Road. The landscape architects' objectives have been implemented, except for the loop around the waterfall. Patient Park is one of the most pleasant places to enjoy outdoor environment at the U.B.C. Campus.

The task for the landscape architect was challenging because of the small area, sloped grounds and variety of users. The result is impressive, since the park is a wonderful retreat, not only for the patients and their visitors, but also for the staff and passerby. The whole open area stretches along the North--South axis with the water fall on the closure of the long vista.

The general idea of the landscape architect was to create maximum opportunities for social interaction as well as for privacy within a salutary environment. Therefore, the landscape architect has created a park which serves both: as a common space for patient-resident group activities and as semi-private spaces for intimate gathering with friends and families.

However, the principal theme of a whole composition was a water feature. The landscape architect has provided a movement to enliven static elements of the design and thus provide stimulation for the patients. By the same token she has created a symbolic place where a water feature symbolizes "life". The waterfall, designed as a sculptured wall which glitters in sunlight, provides a visual magnet as well as tranquility to the park and relates harmoniously with the total space. Above the waterfall there is a small plateau with evergreen shrubs which also symbolize continuity of life.

The open space comprises four small semi-private enclaves with sunny exposure which are surrounded by trees, raised planters and a central plaza. The floor of the open space is paved with exposed aggregate. The aised bed planters are also in concrete. During the summer time there is white garden furniture which provides a very recreational character to the place. Above the waterfall as well as around the whole plaza, there are planted slopes with (four season) evergreen trees and shrubs. In the southern part of the park, there is a cul-de sac for the Extended Care Unit patients for pick up and drop off which is very gently emphasized by the arrangement of trees.

The connection between the park and two health care facilities, a difficult problem, was solved by providing a covered, paved walkway and hedges of similar plant material. Since the

park is ajacent to Health Science Road, the landscape architect reduced the impact of noise by creating a planted mound and putting a row of trees along the road. The raised planters are very important features for the elderly and are utilized fully by a horticulture therapy program.

Summary

Both outdoor open spaces, the Patient Park and the South Patio, provide attractive and useful environments for the elderly patients. The orginal ideas of the architects and landscape architect have been almost fully implemented and have emphasized the function of the spaces in which certain activities can take place comfortably and efficiently. Moreover, the Patient Park fulfills a strong need for beauty and aesthetic experience by providing scenic, beautiful landscape with the waterfall as a main feature.

PARKWOOD MANOR - Congregate House

Architect: Waisman, Dewar, Grout, Carter Architects

Landscape Architect: Randall Sharp

1.Site Context

The site of Parkwood Manor is located in heart of Coquitlam on 5 acres of the beautifully landscaped grounds adjacent to a well-preserved natural park. The facility is easily accessible from all parts of the Lower Mainland and the Fraser Valley by the Barnet and Lougheed Highways. The Coquitlam Shopping Centre is only one block away. Churches, medical, library, and other community services are also in close proximity to the site.

2. General Space Concept

The building is situated in Coquitlam on the cul-de-sac of Pacard Avenue, parallel to Dufferin Street. The three-storey building comprises four residential wings and a central part with the main social space. The main entrance, with ceremonial driveway and two adjoing parking lots with separete service access to the kitchen facilities, face Dufferin Street. On the ground floor level, in the core of the building, there are: dining room overlooking the front yard, lounge and social activities area overlooking formal garden. The lounge area is connected with the garden by a huge terrace. The ground floor level dwelling units in each of the four residential wings have direct exit to the grounds.

3. Design Decision and Objectives

a. Create a walkway loop around the whole facility with a retreat place close to Holy Creek area.
b. Create a formal garden on the rear yard
c. Provide barrier-free access
d. Create flat game areas on grass such as croquet, pad for shuffle-board
e. Provide special feature for the activities for the elderly such as raised planters - horticulture therapy, sunny group activities area - B.B.Q.
f. Provide screened patio for each unit on the ground level, wheelchair accessible from perimeter walk
g. Provide orientation - signage along path for the visually impaired residents

4. Analysis of Findings

The Landscape architect has created an attractive environment for the elderly residents of Parkwood Manor by providing spaces for social interaction, sensory stimulation as well as safety and security.

Although not all his ideas were implemented, the main concept of a looped walkway around the whole facility was carried out. The developer rejected the orginal idea to connect the main walkway with the Holy Creek area which could have been an attractive retreat destination for residents. Moreover, the local rest areas along the walkway with benches (thought to serve as social outdoor spaces) were also deleted. Orginally, the formal garden was designed as two different terraces: the upper one with smooth terracotta paving overlooked a lower grass terrace. Along the bank, at the end of the upper terrace a balustrade was planned and below it benches overlooking rose beds flanked the grass mall. Far behind there supposed to be a gazebo within a ring of cherries buffered by existing hemlocks. Unfortunatelly, the whole idea was given up and now there is only a plain upper terrace with benches on it and huge grass space with some rose beds. There are neither raised planters screening the private part of the open space, nor the gazebo. All attractive and very important feature such as activities areas with special game constructions: chess/checkers tables, sand of horseshoes, paved painted shuffboard, lawn's area for croquette, baci ball and others which could encourage casual participation were abandoned also.

However, the existing terrace plays an important role as an indoor-outdoor transition area which offer beautiful garden view, comfortable seating, easy and direct access and sense of human scale. Moreover, this area allows visual surveillance by residents and staff.

Although the designed outdoor spaces promote security and safety, as well as negotiability, the privacy issue is still critical one. The private patios were not carried out as planned. The wooden decks has been eleminated and only small concrete pads adjacent to patio doors were provided. The lack of fencing or the other barrier i.e. shrubs and patio-decks on ground floor yards have diminished privacy and excluded the possibility that residents could create their own private territories and use them as such. In fact, these places become useless. Moreover, lack of shrubs has created monotony of extensive area of grass surface in front of the building.

Horticulture therapy is another important aspect of appropriate landscape for the elderly. Altough the southern part of the garden was the potential space for garden plots or raised planters for horticulture therapy the developer rejected this idea. There are many proofs that gardening plays beneficial

role in therapy for the elderly. Moreover, a greater level of detailing in outdoor spaces may be prefered by many older people to open spaces lacking detail. Raised garden planters for use by people in wheelchairs or garden plots could have diversified the activities for the elderly by creating additional space for social interaction as well as creating variety in type and location of garden areas. Unfortunatelly, even the BBQ area has not been approved by the developer.

Parkwood Manor is specifically designed for the elderly. Therefore, any solution to provide attractive and useful environment in terms of a landscape is very desirable. The orginal design solutions presented by the Landscape architect could have enhanced the lives of the elderly at the Parkwood Manor facility if they were fully implemented.

HOLLYBURN HOUSE -Intermediate Care and Personal Care Facility

Architect: Neale, Staniszkis, Doll Architects

Landscape Architect: Kim Perry

1. Site Context

The site of Hollyburn House is located in an upper-middle class neighbourhood in West Vancouver on a sloped 53,777 s.f. lot. Hollyburn House is perfectly located as it complies with all requirements for siting a facility for the elderly. The site borders the major public thoroughfare of Marine Drive and two local residential streets, 21st and 20th. The public bus stop is in front of the building. Across the street there is a Public Library. Close to the site, to the West, there is a Seniors' Activity Centre and Recreational Centre with Aquatic facilities, Ice Arena and tennis courts. To the East, there is a Memorial Park with the Lawn Bowling Green. To the North, the lane separates the Hollyburn House and Anglican Church. The shopping centre at Ambleside is within 2 blocks; however, across the street the new shopping complex is under constraction at present. To the South, within 2 blocks, there is a Centennial Seawalk and recreational area.

2. General Space Concept

The building is divided into two functional parts: Part one comprises Personal Care with 66 self-contained units on the second and third floors and Reception- Administration area as well as social and dining spaces on the Ground floor level. Part Two - Intermediate Care I and II is located on the Ground floor level and comprises 36 single units with a social and dining space. The kitchen and staff facilities are located in the core of the main floor level and serve these two parts simutaneusly.

3. Design Decision and Objectives

a. Create accessible ground floor level in spite of a sloped site
b. Provide as many outdoor spaces as possible
c. Utilize small spaces intensively.
d. Reduce impact of the proximity to lane and church
e. Provide West Vancouver vernacular
f. Provide barrier-free design throughout
g. Reduce impact of vehicular traffic on Marina Drive
h. Create Active Garden
i. Create Visual Garden
j. Implement four-season planting material

4. Analysis of Findings

The task for the Landscape Architect was extremely difficult because of limitations: small area and sloped grounds. Nevertheless, the result is impressive because all open spaces support social interaction, provide sensory stimulation, promote security and safety, utilze small spaces intensively and are compatible with Hollyburn House architecture as well as with the whole neighbourhood.

To reduce the impact of vehicular traffic on Marina Drive a sloped green zone with trees and shrubs was created to protect the residents from noise and pollution.

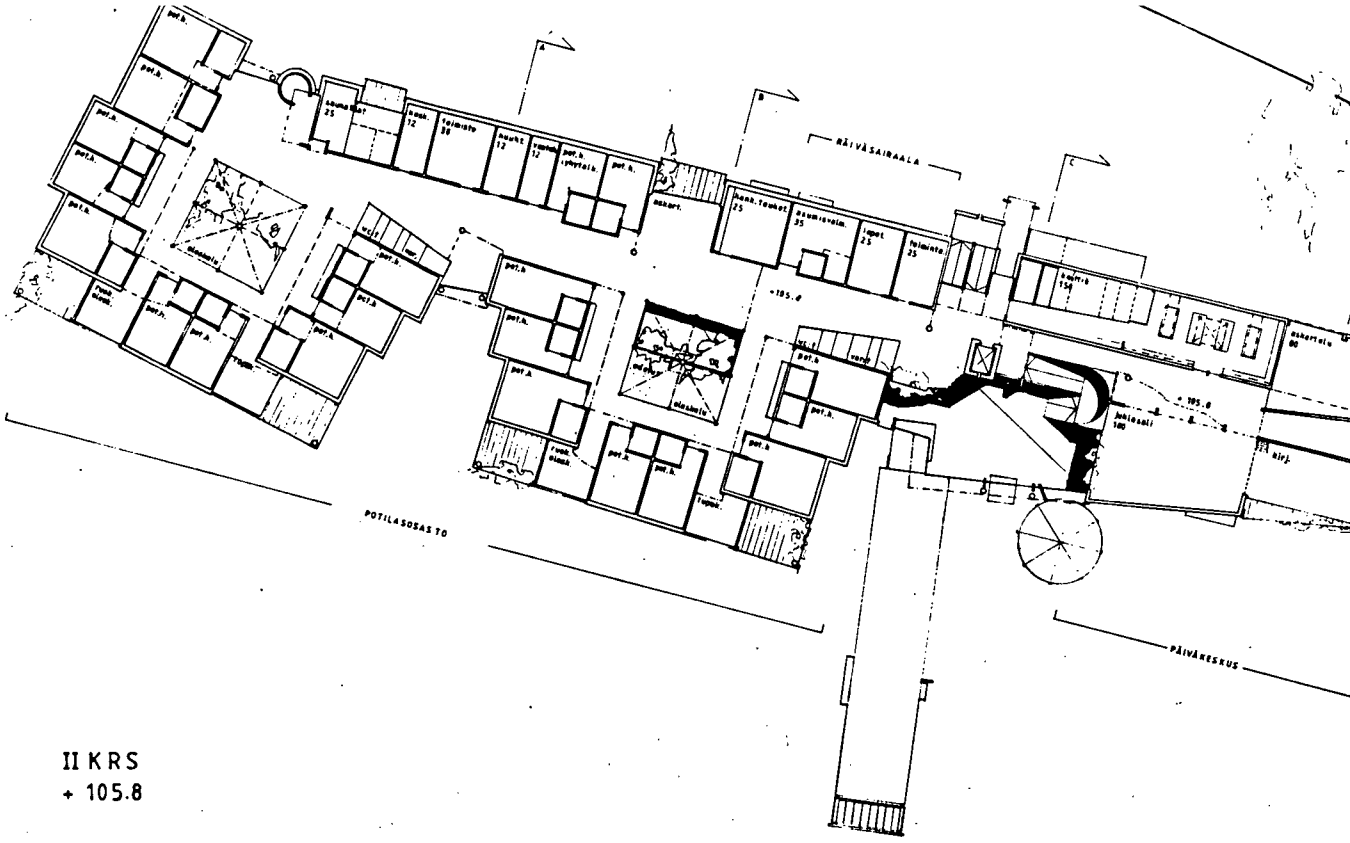
Two separate entrances to Part One and Part Two are designed as entry courts with shrub hedges, trees and planters with annuals and perennials. There are three main patio-gardens which are incorporated into the main functions of the facility at a Ground floor level.To the West, (Part One) there is a Patio-Garden adjacent to the lobby, lounge and dining area. This patio was created as a paved plateau surrounded by stone walls as an "embankment" with trees and shrub hedges along the walls. The entrance to the lounge is emphasized spatially by the round shape of the garden. The main objective of this patio was to create an open space as an extention of a social space in the facility and at the same time to provide a summer dining or outdoor room for the residents of Personal Care level. To the West, of the patio, there is a visual feature designed as a water feature surronded by annual flower beds, cherry trees and shrubs. The water feature includes a water jet and water fall, all done in a stone wall, the same pattern which embraces the whole site. This feature is visible from the entrance area because it is situated on the axis of a circulation area on the main floor of the facility. To the North of the building, there is an unobtrusive access to the parking area in the basement and loading area accessible from the lane.

The second Part of facility - Intermediate Care has a separate entrance with an entry court at the 20th street. There are two large open spaces-patios which are adjacent to a dining room and lounge. The northern patio is designed as a Visual Garden. Since it is adjacent to the lane, the landscape architect reduced the impact of unpleasant surrounding by providing an arbor with climbing plants as a separation and a fountain as a focus point. The floor is paved with exposed aggregate concrete finish and surrounded by native plant material. Although the patio is situated on the north side of the building there is a very pleasant "home like" atmosphere created by small human scale, wooden furniture, visual features - a fountain, an arbor and plants. This Visual-Patio encourages residents to use it as an outdoor dining area.

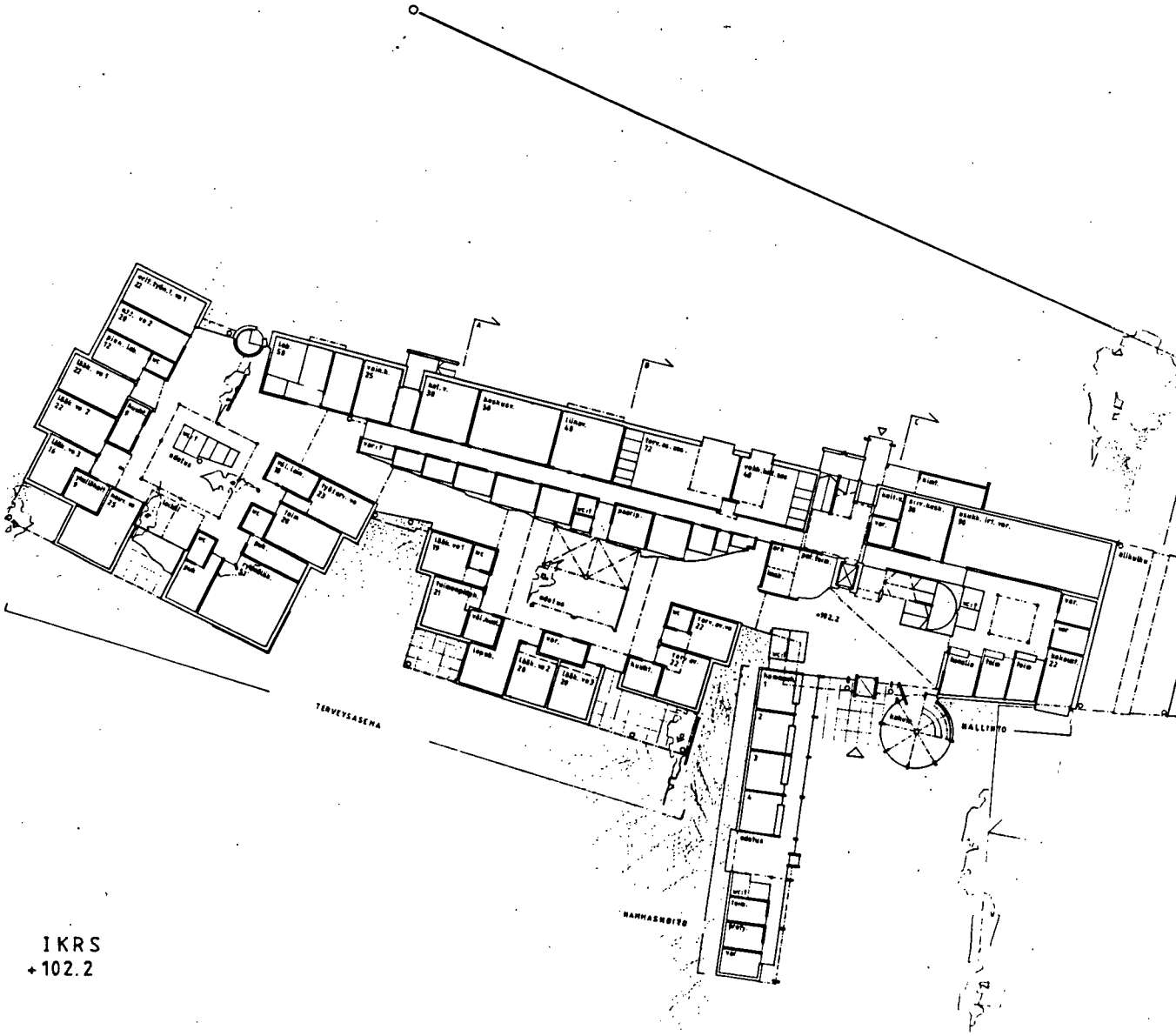
The second patio on the south side of the facility is called the Active Garden. There is a lawn with a gazebo. The landscape architect's idea was to create an active space for the elderly with shuffle-board on a lawn as well as raised beds for cultivating eating plants. However, the developer decided on a casual landscape, easy to maintain by the administration of the facility. As a result, there is only one feature - a gazebo which plays a role as an covered outdoor space for meeting purposes.

All three patio-gardens are barrier-free; unfortunately, there is no physical connection between them. The elderly, therefore, can not walk around and penetrate their territory. Lack of relationship between two parts of facility negate the whole idea of multilevel care facility. Moreover, there is no access from Intermediate Care units to the open space which could serve as semi-private areas of the dwelling unit which is one of the most desirable feature in the elderly housing.

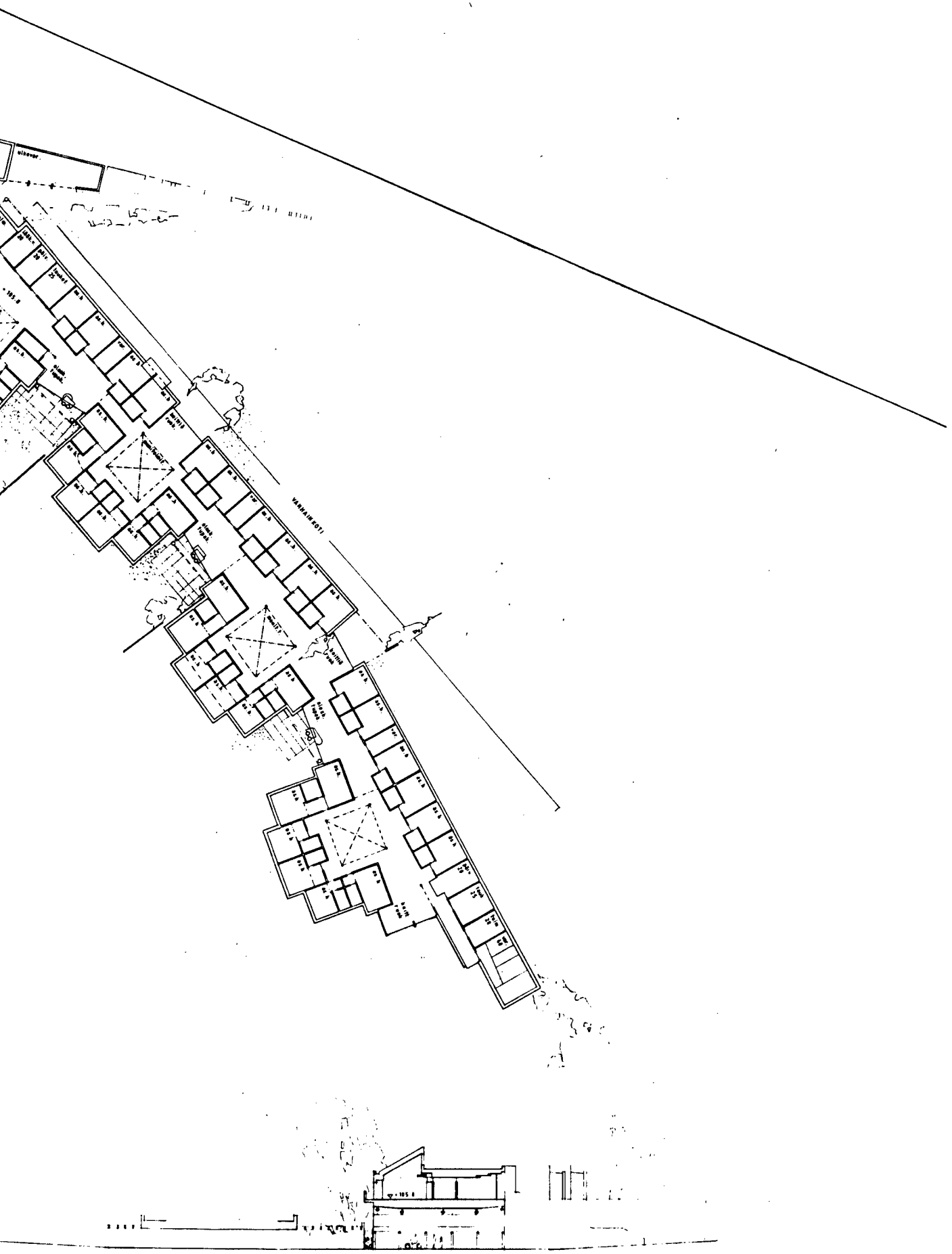
Generally, Hollyburn House Landscape is a good example of a site continuity and compatibility with the neighbourhood. By sensitive design the landscape architect has created three valuable patios for the elderly residents. The idea of providing special garden features for the elderly such as raising beds, shuffle-boards and implement horticulture as therapy in the facility was an innovative solution and of great value.



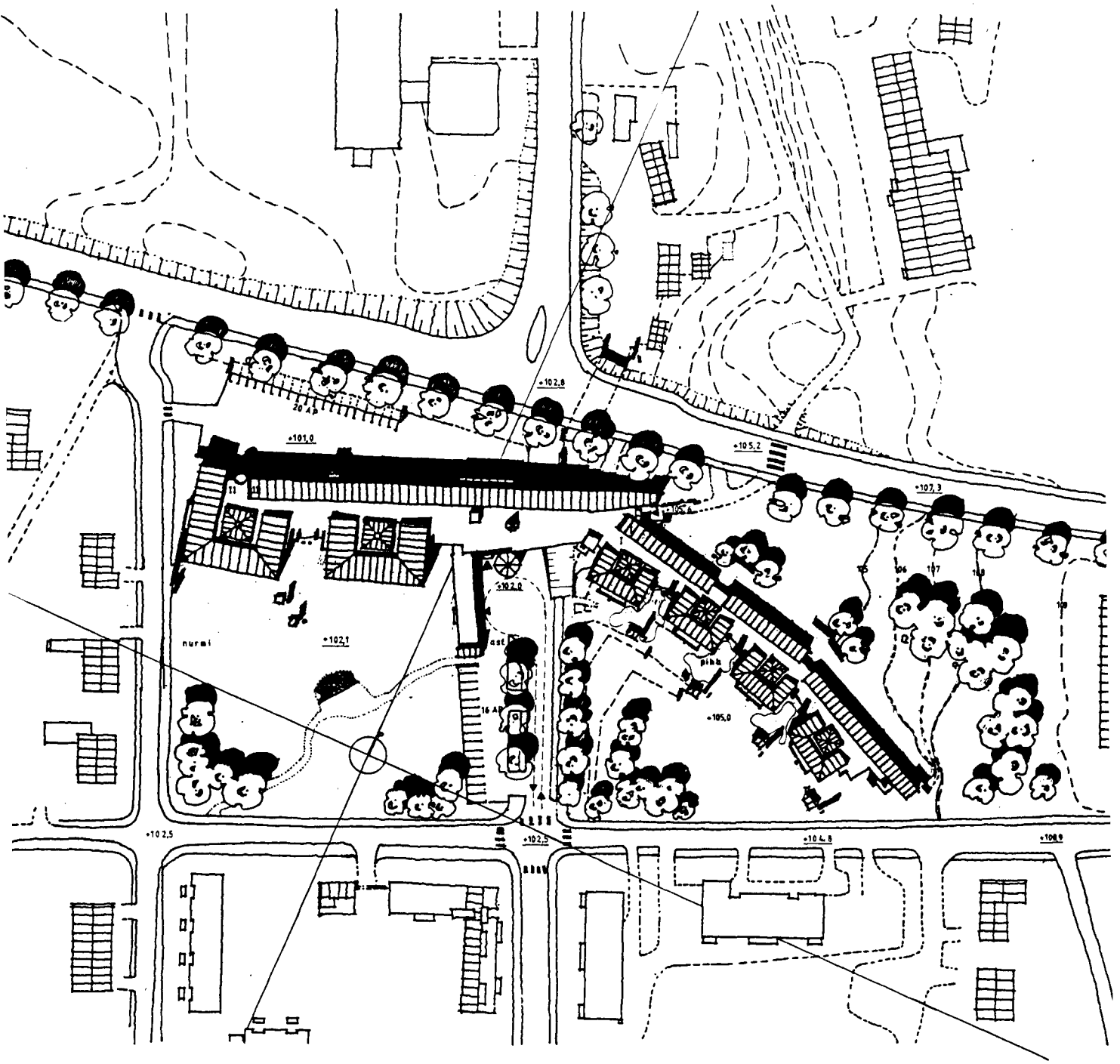
II KRS
+ 105.8



I KRS
+ 102.2



US D-D



A S E M A P I I R R O S 1/500

Selostus

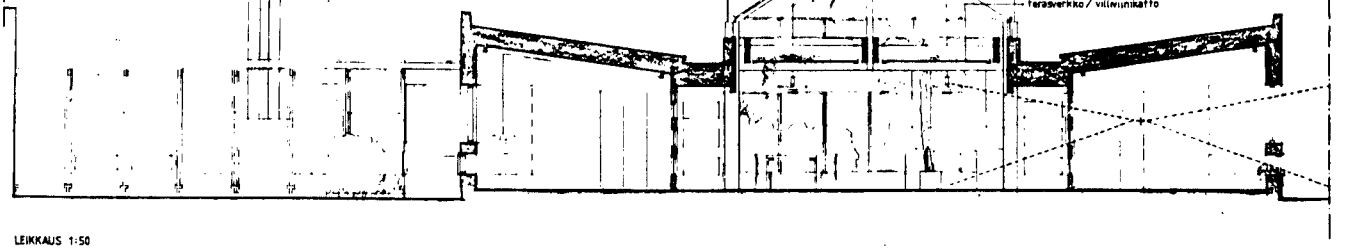
Rakennuksen yleisluonteen muotoutumiseen on vaikuttanut olennaisesti uusiutuva käsitys hoitotyön luonteesta ja pääsääntöisti. Avohoito ja ennaltaehkäisevä hoito edellyttävät terveyskeskukselta avoimuutta ja luonteuutta. Terveydenhoito on ode ihmisen normaalisti tarvitsemia palveluita, eikä näitä palveluita tarjoava laitosta pidä eristää muusta yhdyskunnasta, vaan sen tulee sekä sisäilöllisesti että arkkitehtonisesti ilmaisunsa kautta toimia ympäristönsä positiivisena lisänä.

Hausjärven terveyskeskus on ohjelmaltaan suuri suhteessa ympäristönsä rakennuskantaan. Tämä on johtanut massaltaan hajoitettuun ratkaisuun, joka mittakaavaltaan ja muotokieleltään hakee muistumia perinteisestä kylämiljööstä. Toisaalta sen tehtävä on palvella laajempaa aluetta, mikä kohottaa sen merkityksellisän lähiympäristönsä kokoavaksi dominantiksi ohi Oitin kylän eläkeläisen kiveärkian. Myös tämän tekijän on annettu toimia: rakennuksen ilme on yväkällinen, mutta myös arvokas. Klassisoivat piirteet viittaavat lähetyksteen pitkään akateemisen perinteeseen, inhimillinen eloisuus kertoo modernin hoitotyön luonteesta.

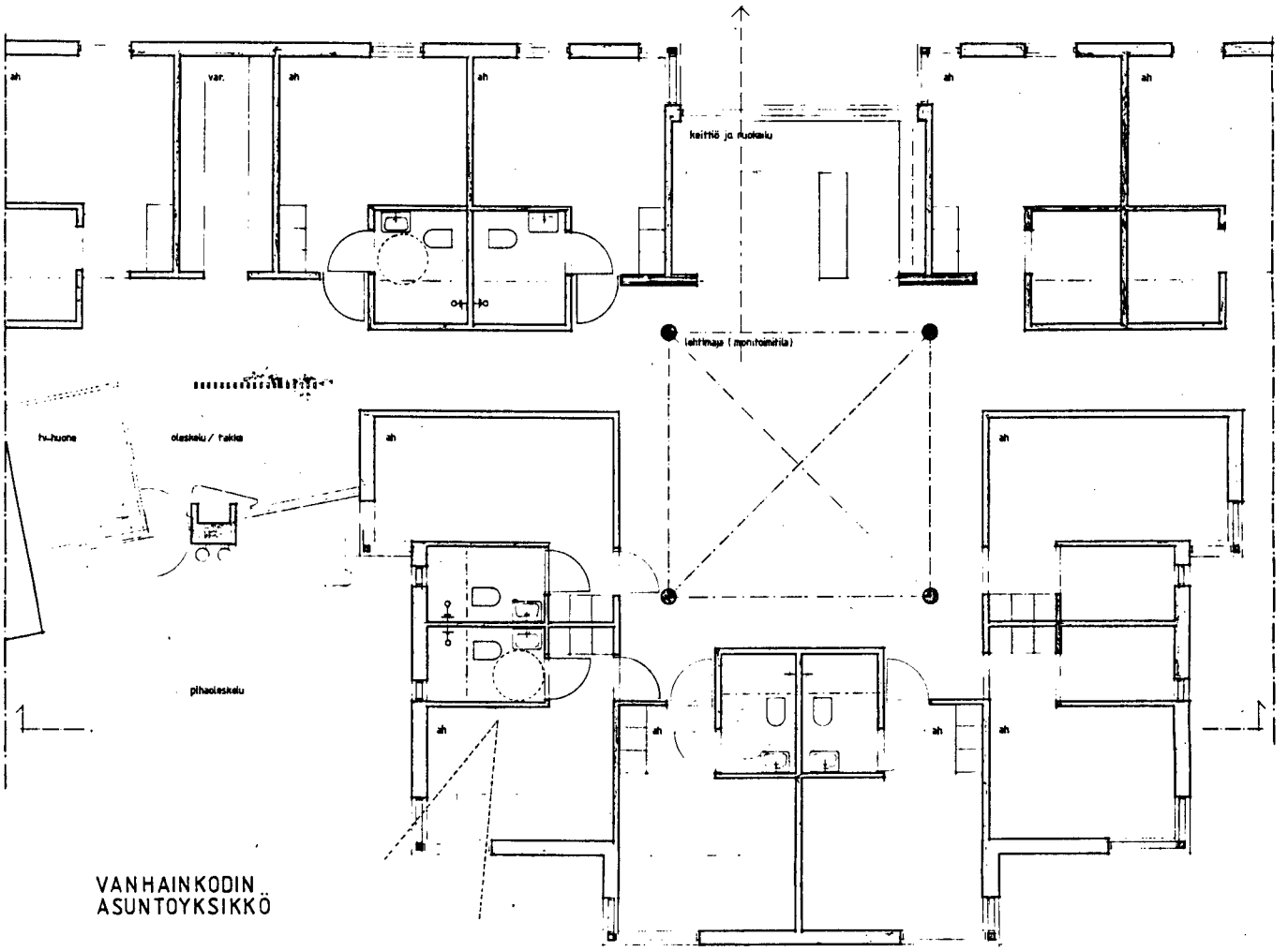
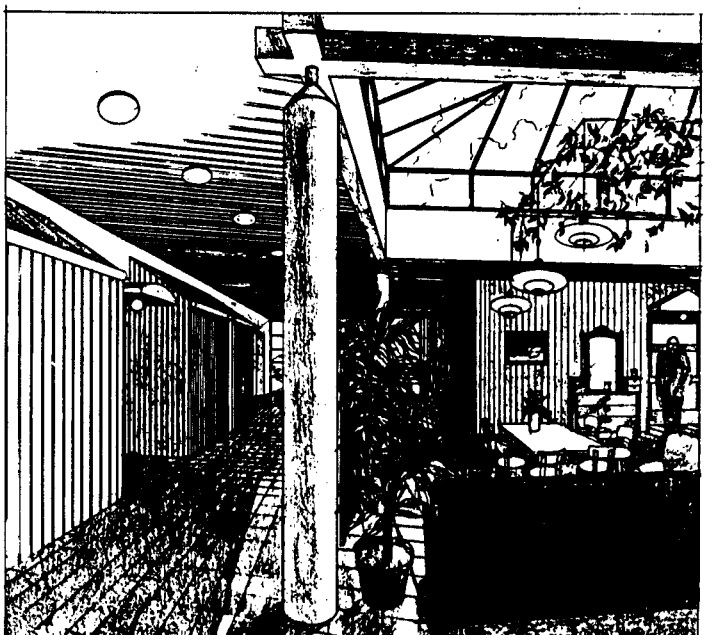
Rakennuksen kolmesta pääosasta vanhainkoti on sijoitettu tontin itäpäähän, ja se hakeutuu kohti ilta-aurinkoa. Yleisten palvelusten osa ja terveyskeskuksen vuodeosasto työntyvät tontin pohjoisraunsen jättäen eteläpuolelle laajan vapaa-alueen. Rakennuksen eli sen keskivaiheilta kulkee yleinen kevyen liikenteen väylä, joka liittää terveyskeskuksen ja Oitin kylän arkielämän toisiinsa. Se pyrkii suojautumaan ajoneuvoliikenteen haitoilta, mutta kevyen liikenteen terkkailun se ottaa rikastuttamaan hoidokkienne kokemuspiiriä.

Sisätilojen ratkaisut luovat kodikasta ja mielenkiintoista ilmapiiriä. Vanhainkodin oleskelutiloja valaisevat suuret kattolyhdyt, terveyskeskuksen puolella ne tuovat valoa myös alemman kerroksen odotustiloihin. Käytävä-, oleskelu- ja odotustiloista avautuu näkymiä vuoroin itään ja eteläänn, ja niitä rajaavat pinnat on käsitelty pienimittakaavaisen katutilan tavoin. Potilashuoneissa toistuu sama teema: aukotus avnnyttää vaihtelavia näkymäsuuntia myös vuoteessa oleville, nurkkaikkunat avaavat maisemaa panoraamana.

Ehdotus korostaa terveyden- ja vanhustenhoidon läheistä suhdetta ympäröivään elämään; arkielämä ympäröi rakennusta ja jatkuu luonteveesti sen sisälle, samoin kuin luonto jatkaa kasvamistaan sen lasisissa sydämissä, lehtimajoissa.



LEIKKAUS 1:50



VANHAINKODIN
ASUNTOYKSIKKÖ