

BURLINGTON
An Urban Study

A Thesis
Presented to
The Department of Geography
McMaster University

In Partial Fulfilment
of the Requirements for the Degree of
Bachelor of Arts

Received and passed by the
Department, May, 1957.
by
John Hall McCallum
May 1957.

L. G. Reeds.

(i)

"The town of Burlington nestling within a fertile valley between Lake Ontario and the Niagara Escarpment has become a thriving municipality, rural enough to retain its natural beauty, and urban enough to provide those things of commerce and trade which supply the comforts of life. It is a suburban settlement of beautiful homes and gardens. The adjoining farm lands are now in a transition period of subdivision. Surveys are mushrooming into real estate developments, while the finger of residential, commercial and industrial planning is pointing straight to a bright future".

The Hamilton Spectator

March 17, 1951.



(11)

An aerial photograph of Burlington, looking north-east,
showing some of the rich agricultural land soon to be absorbed by
residential subdivisions.
_____ Present boundary of Burlington (1957).

ACKNOWLEDGMENTS

The author wishes to express his sincere appreciation to all those who have made the writing of this thesis possible. Special gratitude must be offered to Dr. H. R. Thompson of McMaster University, whose advice, helpful criticism and patience, were all very much appreciated; and to Mr. D. Farmer, Assistant Clerk and Treasurer, Town of Burlington, for the time and information which he contributed to this work.

Special mention should also be made of Mr. R. E. P. Serena, Director of Planning, Town of Burlington, Mr. Elgin Harris, former owner-publisher of the "Burlington Gazette", Mrs. D. H. Angus, Head Librarian, Burlington Public Library, Mr. E. Davis, Director of Recreation, Town of Burlington, Mr. W. K. Sims, Nelson Township Clerk, the representatives of Burlington and district industries and commercial establishments, and the people of Burlington, all of whom were only too willing to be of help and assistance.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS.....	(iii)
TABLE OF CONTENTS.....	(iv)
LIST OF FIGURES.....	(vi)
LIST OF PHOTOGRAPHS.....	(vii)
 CHAPTER 1 <u>INTRODUCTION</u>	 1
 CHAPTER 11 <u>THE PHYSICAL SETTING</u>	 7
Physiography and Geology.....	7
Climate.....	17
Soils.....	20
Vegetation.....	21
Summary.....	22
 CHAPTER 111 <u>THE HISTORICAL DEVELOPMENT OF BURLINGTON</u>	 24
Early Settlement: until 1810.....	24
Burlington as a Grain Mart and Commercial Port:	
1810 - 1856	25
"Lumber Fever": 1856 - 1870.....	28
Burlington, "The Garden of Canada": 1870 - 1930	29
Burlington Since 1930: an example of urban growth	34
Summary.....	35
 CHAPTER 1V <u>THE RESIDENCES, COMMERCIAL ESTABLISHMENTS AND</u> <u>INDUSTRIES OF BURLINGTON, THE REGIONAL NODE</u>	 37 37 46 54 67 69 69
Residences.....	37
Commercial Establishments.....	46
Industries.....	54
The Other Ways in Which Burlington's Land is Used..	67
Burlington's Zoning Policy.....	69
Summary.....	69
 CHAPTER V <u>CULTURAL GEOGRAPHY</u>	 72
Population Trends and Characteristics.....	72
Burlington's Institutions and Important Public	
Buildings	76
Recreational Facilities.....	81
Services.....	83
Summary.....	86
 CHAPTER VI <u>THE HAMILTON-BURLINGTON RELATIONSHIP</u>	 87
Summary.....	91
 CHAPTER VII <u>THE UMLAND COMPONENT OF THE BURLINGTON</u> <u>GEOGRAPHICAL REGION</u>	 93
Lower Nelson.....	95
Aldershot.....	99
Summary.....	105

TABLE OF CONTENTS - Cont'd.

	Page
CHAPTER VIII	
<u>THE UPPER NELSON TRANSITION AREA AND</u>	
<u>THE BEACH STRIP TRANSITION AREA.....</u>	107
The Upper Nelson Transition Area.....	107
The Beach Strip Transition Area.....	111
Summary.....	114
CHAPTER IX	
<u>SUMMARY AND CONCLUSIONS.....</u>	116
APPENDIX A.....	121
APPENDIX B.....	124
APPENDIX C.....	127
APPENDIX D.....	132
APPENDIX E.....	133
APPENDIX F.....	136
BIBLIOGRAPHY.....	138

LIST OF FIGURES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1.	Burlington's Location in Southern Ontario.....	2
2.	Burlington in the Toronto-Hamilton-Niagara Falls Region.....	4
3.	Burlington and its Setting.....	8
4.	The First Split in the Wisconsin Glacier.....	10
5.	The Time of Lakes Iroquois and Algonquin.....	10
6.	A Physiographic Map of the Burlington Area.....	12
7.	The Iroquois Plain: A Transportation Corridor, Past and Present.....	16
8.	Temperature Graph for Hamilton.....	18
9.	Average Monthly Total Precipitation Including Snow as Water - Equivalent for Hamilton.....	18
10.	The Village of Wellington Square, 1867.....	26
11.	The Village of Burlington, 1877.....	32
12.	The Present Land Use of Burlington, 1956.....	on back cover
13.	Burlington's Retail Trade Pattern.....	53
14.	Burlington Industry.....	58
15.	Plan "A" Zoning By-Law, 1416, Town of Burlington.....	68
16.	A Chart Showing the Growth of Population in Burlington 1871 - 1956.....	73
17.	A Graph Comparing Burlington's Population Growth with those of Dundas and Oakville: 1871 - 1956.....	73
18.	Institutions and Public Buildings.....	on back cover
19.	The Burlington Geographical Region and Transitional Appendages.....	94
20.	The Extent of Burlington After Annexation.....	94

LIST OF PHOTOGRAPHS

	Page
An Aerial Photograph of Burlington.....	(ii)
An old Iroquois beach.....;	13
A shorecliff exposed.....	13
A lafe front mansion.....	41
An A type home.....	41
Typical B ¹ homes.....	42
A small compact B ² home.....	42
Typical C ¹ homes.....	44
A C ² home.....	44
One of Burlington's modern apartment buildings.....	45
A D type home.....	45
A view of the Central Business District.....	49
The Burlington Plaza.....	49
The A. S. Nicholson and Son, Limited.....	60
The Frank Tool and Die Company.....	60
The Niagara Brand Spray Company, Limited.....	63
The Burlington Brick Company.....	63
The Burlington High School.....	78
The new St. John's Roman Catholic Church.....	78
The Burlington Arena.....	82
The Burlington Golf and Country Club.....	82
The busy Burlington Depot.....	84A
Burlington's modern Police Station.....	84A
The J. Cooke Concrete Block Company, Limited, Aldershot.....	100
The Butler Manufacturing Company (Canada) Limited.....	100
A well kept vine and fruit farm.....	104
The Queensway Survey.....	104
A typical Upper Nelson farm.....	109
The Burlington Beach Skyway.....	113
Depressed cottage settlement of the Burlington Bar.....	113

CHAPTER 1

INTRODUCTION

The town of Burlington, located at the southwestern corner of Lake Ontario (see Figure 1), has for the past fifteen years been growing at a startling rate. Startling, for in this brief period of time the population has roughly tripled. Noted just a few years ago for its farms and orchards, the town has in recent years become a beehive of residential, commercial and industrial activity. What factors have been responsible for this transition? How has it taken place? How have these factors affected the pattern of man's life in Burlington? It is the purpose of the following chapters to examine and to answer these questions.

In Chapter 11, the physical setting of Burlington is analyzed. An attempt is made to describe the various elements of the natural environment which have made it possible for both agricultural and urban interests to thrive in the town. In recent years, because of changing economic forces, it has become more profitable to use land for residential, industrial and commercial development than for agriculture.

The process of evolution, which has brought about this transition from ruralism to urbanism in Burlington, is traced in an account of the historical development of the community. At first, grain growing was an important aspect of the town's economic activity. This was followed by lumbering and dairying and, in more recent times, by fruit and truck farming. Under these influences Burlington's growth and expansion were limited. After 1900, however, the rapid industrialization of Southern Ontario threatened the existence of agriculture in some places. For a

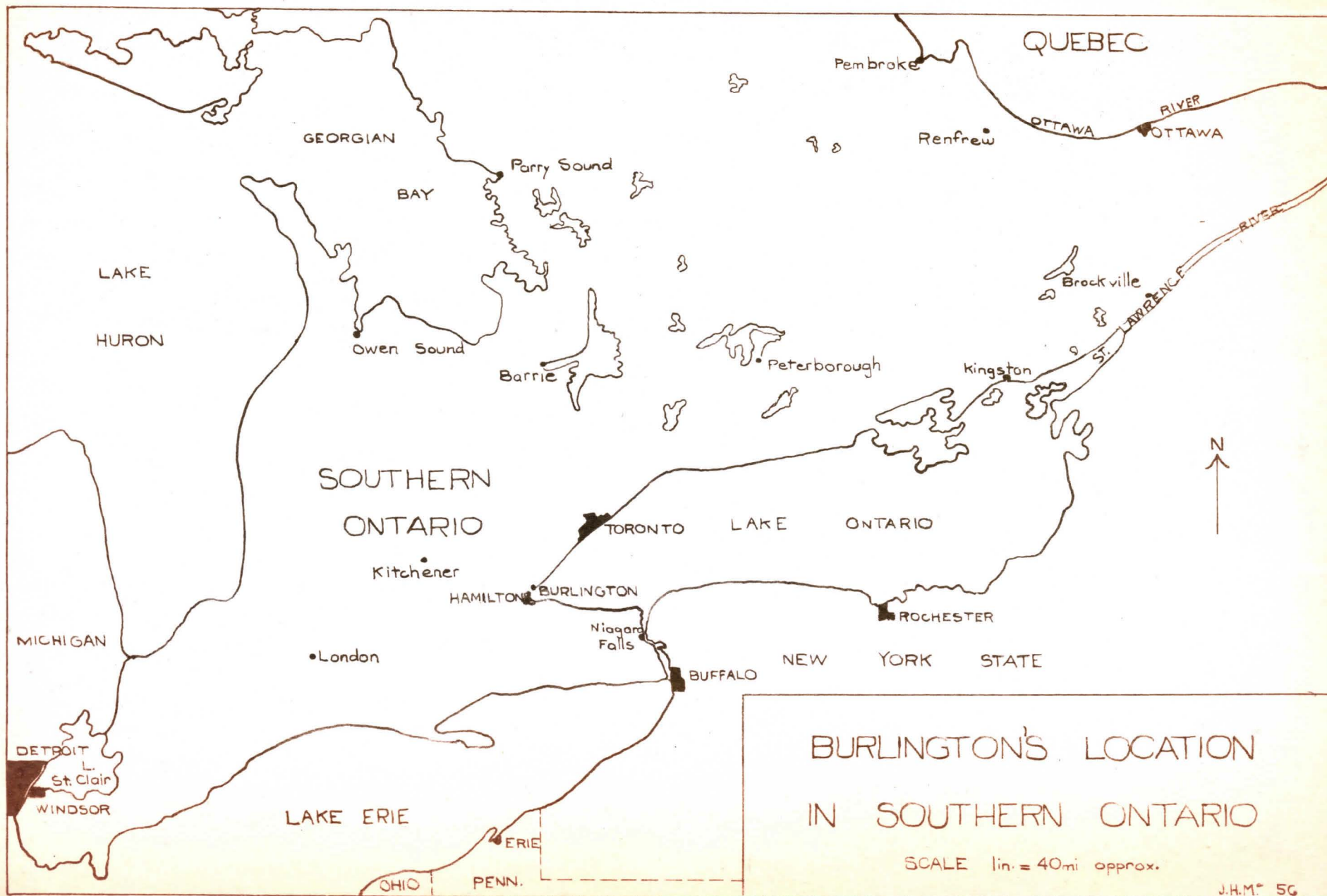


FIGURE 1.

time, Burlington farm interests were able to cope with this outside interference and even benefited from its existence by selling large quantities of fruit and vegetables to growing industrial cities, such as Hamilton and Toronto.

In Chapter IV, on land use and functions, emphasis is placed upon the extensive residential, commercial and industrial development of Burlington. Since 1920, the Burlington area has been rapidly urbanized and agriculture has been almost completely expelled from the town. This transition has had a marked effect upon the structure of the Burlington economy. In the face of widespread residential development, the commercial facilities of the town have been greatly extended in order to provide more diversification. Industrial expansion has been one of the most pronounced features of this transition. Located on the major rail and road routes of the Toronto-Niagara industrial corridor, and serving as an important transportational hub for southwestern Ontario, Burlington provides a good setting for industrial location. (See Figure 2.)

Burlington's cultural geography has also been affected by recent growth. The rapid increase of Burlington's population has placed a great strain upon the existing institutional and public facilities of the town. Fortunately, the community is autonomous, supplying its own utilities, and has been able to cope with the increased demands. Everywhere water, sewerage and road facilities have been improved and extended. New schools and churches have been built and old ones enlarged with an eye to meeting not only today's demands, but those of the future also.

Chapter VI is devoted to a study of the Hamilton-Burlington

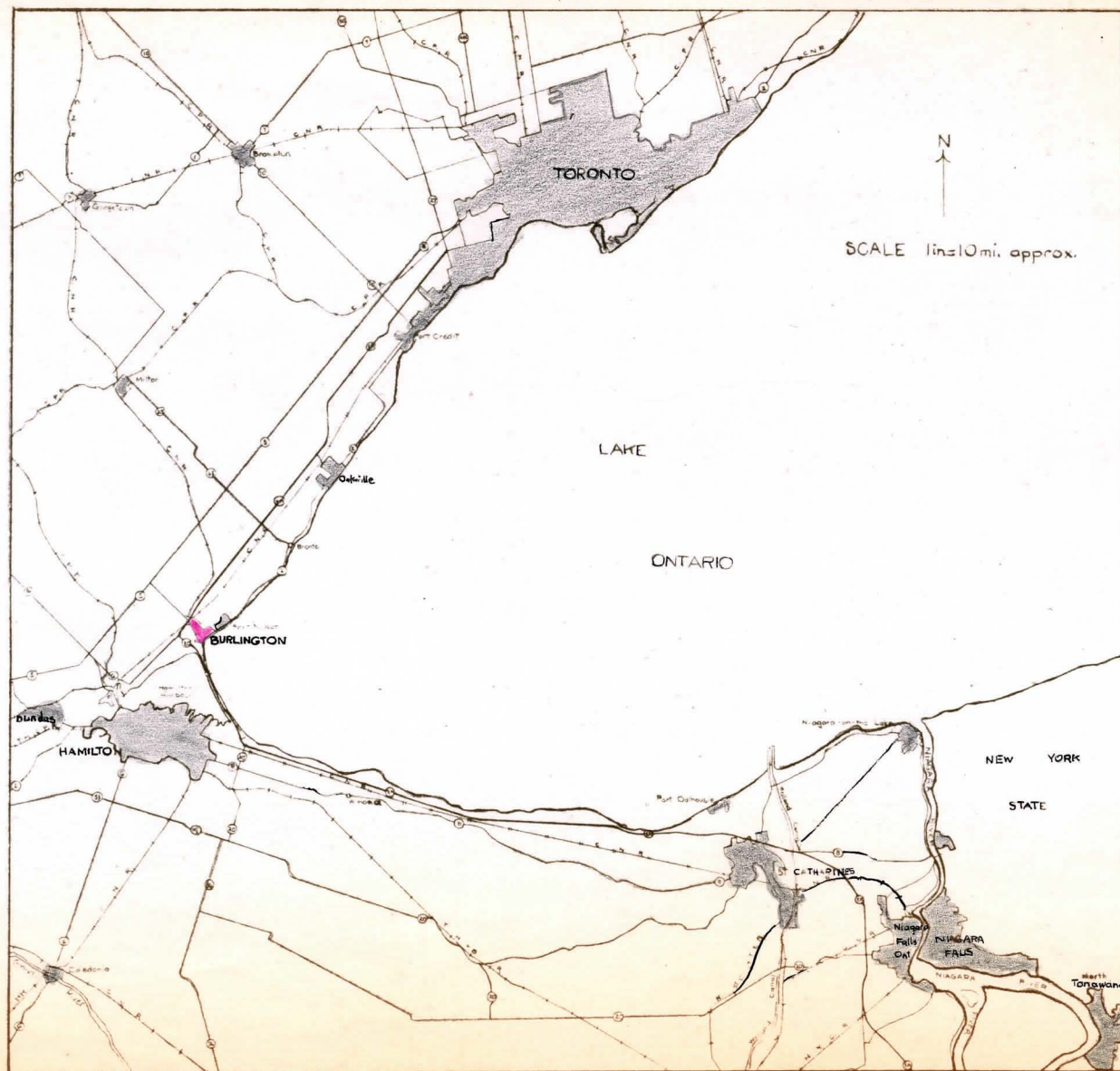


FIGURE 2

BURLINGTON IN THE TORONTO - HAMILTON - NIAGARA FALLS REGION

relationship. Many of the changes which have taken place in Burlington in recent years, have stemmed directly from the association which has for long years existed between the two communities. The rapid growth of residential development in Burlington has been largely the result of an influx of Hamilton workers seeking suburban living conditions. Extensive competition from Hamilton stores has been one of the major reasons for the modernization and increased diversification of Burlington's commercial district. Many industries have located in Burlington because of the proximity to Hamilton. The city provides not only an important market for Burlington's manufactured goods but also an abundant supply of labour for the town's industries.

Chapters VII and VIII are devoted to a study of the Burlington Geographical Region and two transitional areas closely associated with it. Burlington lies in a nodal region¹, identified in terms of economic geography, consisting of a node¹, Burlington, and the surrounding area, called an umland². A careful study of Figures 19 and 20, on page 94, will show that the node of this geographical region coincides fairly

1. A nodal region is a tract of territory having a distinctive commercial and transportation structure, in that it consists of an urban focus or node, upon which the trade and traffic of a tributary area converge. A nodal region is therefore identified primarily on the basis of circulation". (From personal communication with H. R. Thompson, See also P. E. James, American Geography: Inventory & Prospect, pp. 40, 41, Syracuse University, 1954.)

2. The umland of a town, according to Griffith Taylor, (Urban Geography, London, 1949), is "that portion of the surrounding country which is linked culturally with the town as a centre. There are, of course, many such links, and in general the larger the town the more diverse the links". While C. Harris has defined twelve such links in his study of Salt Lake City (Salt Lake City, A Regional Capital, University of Chicago, 1940), no attempt has been made in this study to be so precise.

The writer is aware that the term umland is both ugly and controversial but it meets the present need closely and will be used carefully.

closely with the January 1, 1957 administrative boundaries of Burlington. The unland coincides fairly closely with the area to be annexed by Burlington on January 1, 1958 with the exception that the northern part of Nelson Township, to be annexed at the same time, lies outside the geographical region of Burlington. (See Figures 19 and 20.) Although a section of Chapter VIII is devoted to a study of northern Nelson Township, much less attention will be paid to this territory than to that which lies within the geographical region proper. It may be noticed that the Burlington Geographical Region extends only westwards, northwards and eastwards of the town. To the south there lies the City of Hamilton, which abruptly truncates Burlington's influence in that direction. There is, however, a narrow strip of land, namely the Burlington Bar (commonly referred to as Burlington Beach or the Beach Strip), in which the economic pulls of Hamilton and Burlington overlap. This area will be referred to as the Beach Strip Transition Area. In contrast to the term "Burlington Region", the terms "Burlington area" and "Burlington district", which recur frequently throughout the following pages, are not intended to have any definite territorial significance.

This then is the study of an urban community in transition. It entails an investigation of the physical geography of the community; of the past and present economic, social and cultural conditions within the community; of the relationship between the community and a large neighbouring industrial city; and of a geographical region and two adjacent areas which will be referred to as its appendages.

CHAPTER 11

THE PHYSICAL SETTING

The town of Burlington is situated on a sandy lake plain just northeast of the mouth of the old preglacial Dundas Valley, in the extreme southwestern corner of Nelson Township, northeast of Hamilton. On even terrain, backed by the Niagara Escarpment, to the northwest, and fronted by Lake Ontario, to the southeast (see Figure 3) the town enjoys a site which in the past proved favourable for agriculture and which today is proving favourable for urban development. From the standpoint of situation, the town is strategically located at the point of convergence of the Niagara Escarpment, the Burlington Beach Strip and the Iroquois Plain -- natural features which strongly influence the transportational pattern of Southern Ontario. The significance of these latter statements becomes more evident when one studies the physiography and geology, the climate, the soils and the vegetation of the Burlington area. Let us, therefore, turn our attention to a study of these aspects of the physical environment.

PHYSIOGRAPHY AND GEOLOGY

The physical features of the Burlington area have resulted from glaciation, especially that phase of glacial history associated with the Wisconsin Glacier and its recession. A brief study of this recession will help to explain the origin of the natural landscape of the Burlington area.

The Wisconsin Glacier covered all of Ontario in Pleistocene time, and extended well into southern Ohio. Not until it had melted back about 150 miles, uncovering nearly all of Ohio, was the first land

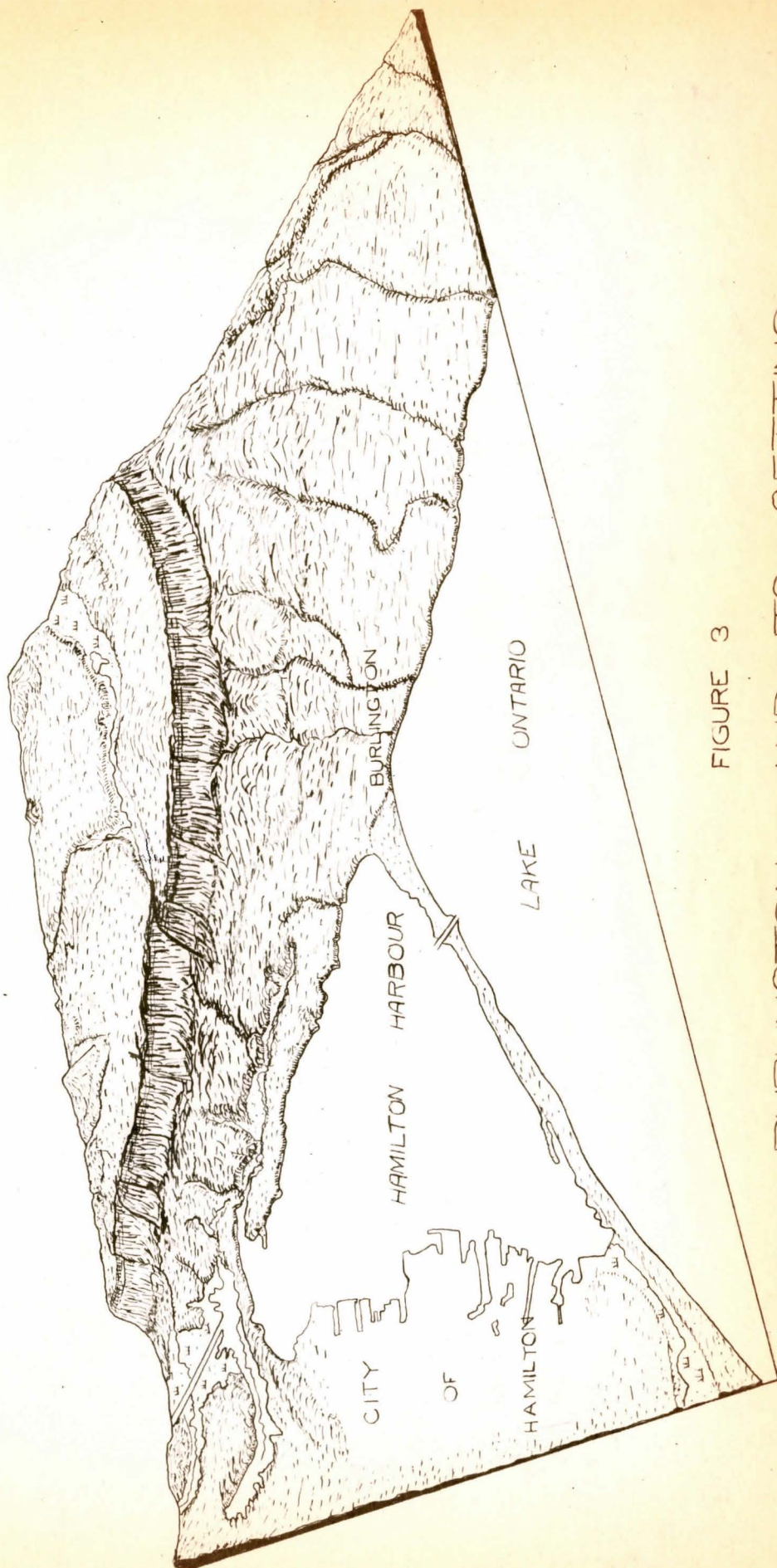


FIGURE 3

BURLINGTON · AND ITS SETTING

in Southern Ontario uncovered. The Wisconsin ice sheet split into two distinct lobes. (See Figure 4.) To the northwest there was the Huron-Georgian Bay - Kawartha ice lobe and, to the southeast, the Ontario-Erie ice lobe¹. At first these two lobes met just south of London. (See Figure 4). Both lobes began to retreat slowly, laying bare more and more of Southern Ontario. As the recession continued the artistry of the ice shaped the topography of Southern Ontario. In some areas moraines were uncovered while in others, drumlins were shaped and left to stand as mute testimony of the imposing glacial processes. Spillways, kames, eskers and other surface features were formed by melt water action, associated with the retreat of the ice sheet. As the ice melted, inland lakes such as Lake Maumee, Lake Whittlesey and Lake Warren formed, their existence dependent upon the melt water of the two lobes. When the Ontario-Erie ice lobe withdrew to the eastern end of the present day Lake Ontario basin, uncovering the Mohawk Valley at Rome, New York, the great glacial Lake Iroquois was created. (See Figure 5). Lake Algonquin, occupying the present basins of Lake Huron and Georgian Bay, was also formed at this time. These two were much the longest lived of the glacial lakes as is evident by their strongly developed beaches and bluffs². The lowland bordering Lake Ontario (including the Burlington district) was inundated by the water of Lake Iroquois. When the great dam in the St. Lawrence Valley withdrew, the water of Lake Iroquois escaped to the ocean through the Hudson valley. As the water level dropped Lake Iroquois gave way to

1. Chapman & Putnam, The Physiography of Southern Ontario, p.25, Toronto
2. Ibid., p.33. 1951.

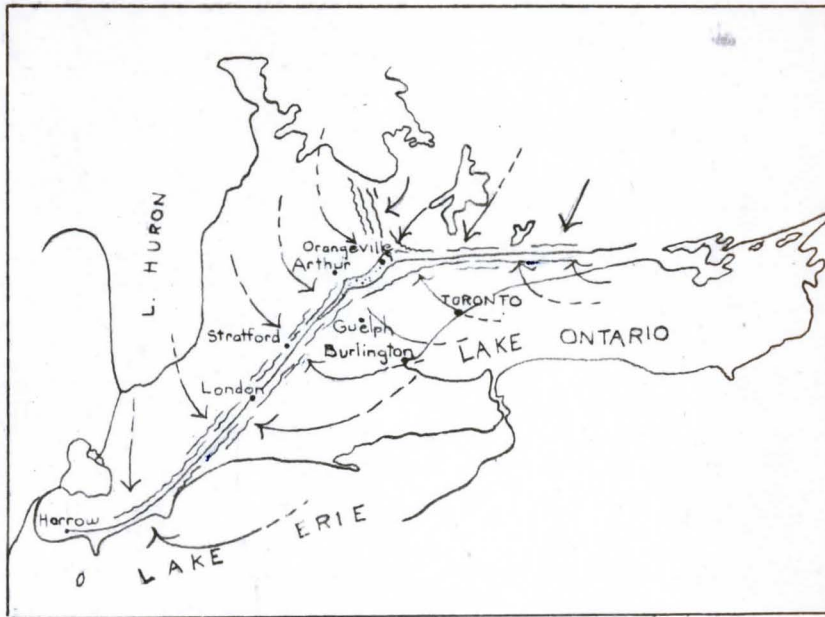


FIGURE 4
THE FIRST SPLIT OF THE WISCONSIN GLACIER
IN ONTARIO

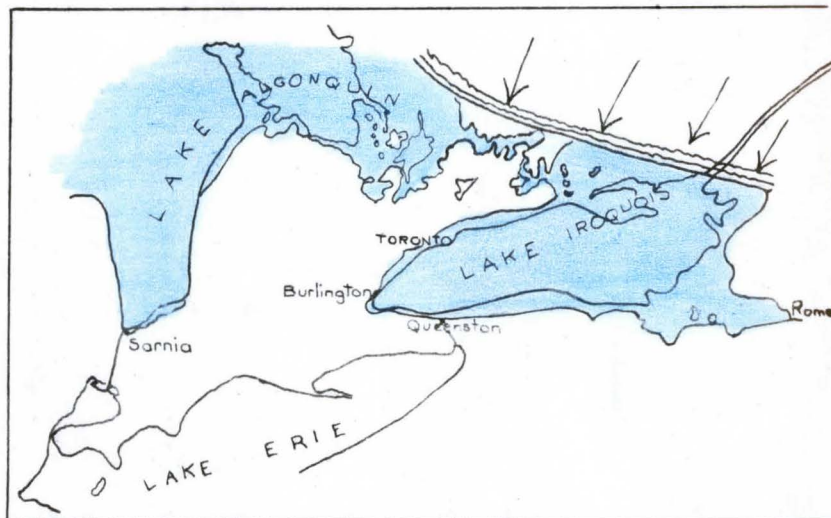


FIGURE 5
THE TIME OF LAKES IROQUOIS & ALGONQUIN

AFTER CHAPMAN & PUTNAM

Lake Ontario. The old Lake Iroquois had occupied the basin of the present lake although on a much more extensive scale and at the peak of its existence had been fully 115 feet above the present lake level.

Basically, the present day surface skin of the Burlington area owes its existence to Lake Iroquois. (See Appendix A-1.) Chapman and Putnam in their book, The Physiography of Southern Ontario, define the narrow belt of land along the shore of Lake Ontario, formerly covered by Lake Iroquois water, as the Iroquois Plain. The Iroquois Plain extends around the western part of Lake Ontario, from the Niagara River to the Trent River, a distance of ninety miles, its width varying from a few hundred yards to about eight miles¹. The town of Burlington is located near the southwestern end of the Hamilton-Toronto section of the Plain. The old shoreline of Lake Iroquois is represented by a great gravel bar- the Iroquois Bar-which separates Cootes Paradise from Hamilton Harbour and which more or less parallels the Hamilton Harbour and Lake Ontario shorelines, just north of Highway No. 2 and the Queen Elizabeth Way. (See Figure 6.)

In the vicinity of Burlington, several physiographic regions are apparent. (See Figure 6.) The wave action of Lake Ontario has cut back into the soft red Queenston shale bed rock, forming low shorecliffs. These shorecliffs are quite outstanding physical features of the Burlington shoreline of Lake Ontario. (See Appendix A-2.) It seems strangely ironical that the same wave action which helped to create the very

1. Chapman and Putnam, The Physiography of Southern Ontario, p. 234
Toronto, 1951.

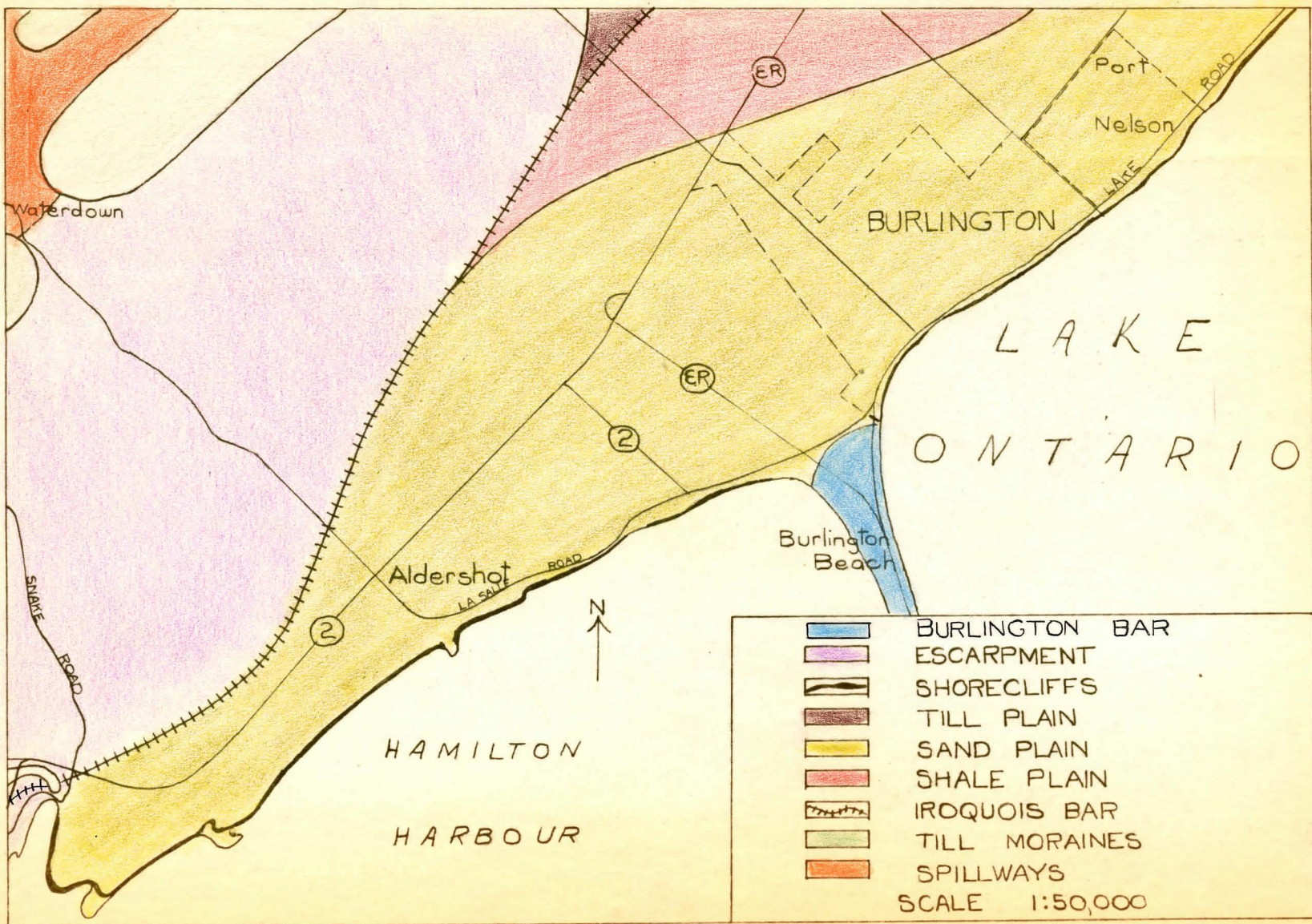


FIGURE 6

AFTER CHAPMAN & PUTNAM

A PHYSIOGRAPHIC MAP OF THE BURLINGTON AREA



An old Iroquois beach located just southwest
of the Brant Inn, below the Brant Museum.
(see Appendix A-2)



A shorecliff exposed at the foot of
Burlington Court.
(see Appendix A-1)

important Burlington Bar should also be responsible for the destruction of the Burlington shore. Wave erosion has been checked, however, through the introduction of concrete and boulder breakwaters along the shoreline. The keen observer will be able to note several wave cut benches along the Hamilton Harbour and Lake Ontario shorelines also. (See Appendix A-3.)

Between the lake and the Iroquois gravel ridge lies a well drained, gently sloping sand plain which varies in width from a half a mile, in the Willow Cove district, to just under two miles in the vicinity of Burlington. The sands are of locustrine origin. They have been worked and reworked by the water of Lake Iroquois and are thus fine and medium textured.

North of Burlington, between the sand plain and the Iroquois gravel ridge, we find a narrow shale plain. Here the shale bedrock is very close to the surface and the soil cover is extremely thin. The water of Lake Iroquois washed most of the glacial till back into the lake forming lake clays.

To the northeast of this shale plain and occupying only a minor segment of the immediate Burlington area, may be found a drumlinized till plain. Here one may find various sized rock fragments, ranging from fine clay to large boulders. The till plain in the Burlington area is covered with fine sands and silts, providing the basis for a fertile sandy loam soil.

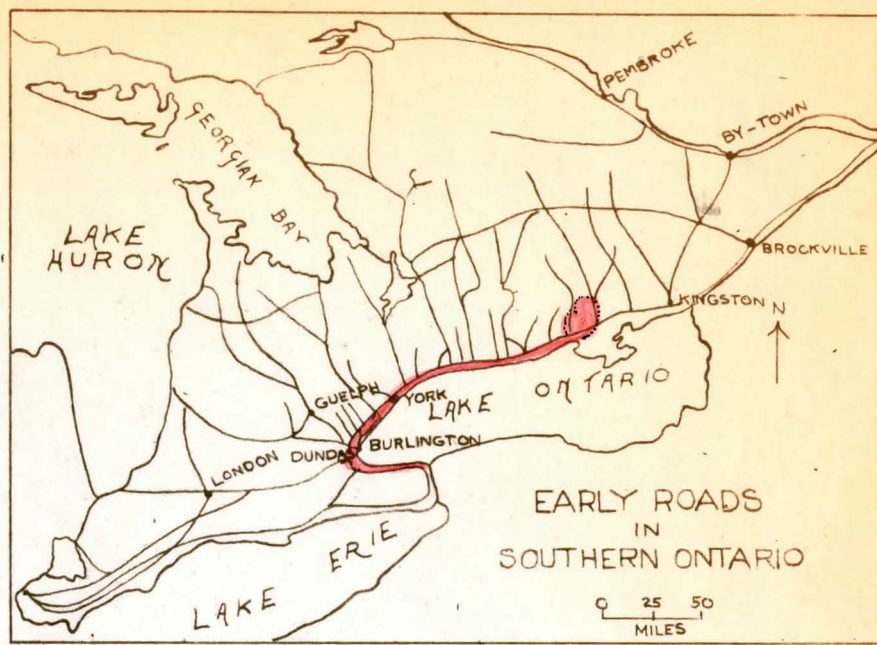
Back of the Iroquois gravel ridge, the land rises quite steeply in the form of the famous Niagara Escarpment. The face of the Escarpment is marked by differentially eroded outcrops of Lockport Dolomite and shale. It stands roughly 400 feet above the Iroquois Plain at Aldershot.


Just northwest of Burlington, the Escarpment alters from its general east-west direction and assumes a more north-south trend. Immediately above the Escarpment are found the moraines and spillways of the Waterdown area.

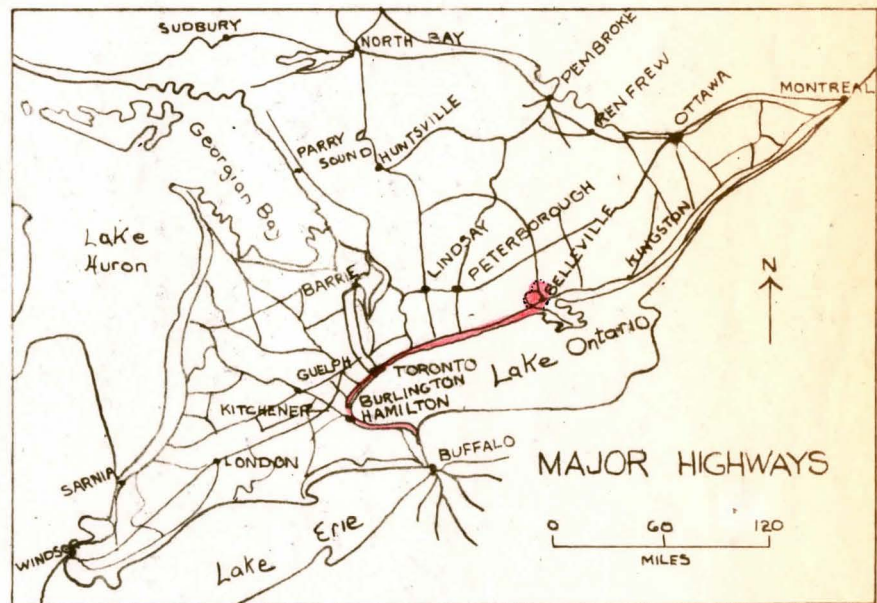
There are no streams of major importance in the vicinity of Burlington and the drainage pattern consists of a number of sub-parallel streams running down the slopes of the Escarpment, across the Iroquois Plain, eventually emptying into Hamilton Harbour or Lake Ontario. The only stream of any size is the Grindstone Creek, which flows down the Escarpment, through the Waterdown cut, and thence through the Hendrie Valley into Hamilton Harbour. The spillway of this stream is very picturesque and provides a wonderful setting for the Royal Botanical Gardens. At one time, however, it did provide an obstacle to travel between Hamilton and Burlington. Two small streams pass through the town proper and empty into Lake Ontario. They are Allen Creek, the more westerly of the two, and Rambo Creek. Most of the stream valleys in the Burlington area are deep indicating that the process of down-cutting has been going on since Lake Iroquois began to shrink.

The Iroquois Plain is of great geographical significance. Due to its gentle slopes, it has always been an important transportation corridor. (See Figure 7.) The Iroquois Bar, separating Cootes Paradise from Hamilton Harbour, provides a natural bridge for rail and road transport. The Burlington Bar (commonly called the Burlington Beach Strip) has for many years offered a natural by-pass for traffic wishing to avoid the congestion of downtown Hamilton, and has also provided an important recreational playground for district citizens. The Iroquois gravel ridge is a source of road and building materials, and the shale

FIGURE 7



 IROQUOIS PLAIN



AFTER "CANADIAN REGIONS"

THE IROQUOIS PLAIN
A TRANSPORTATION CORRIDOR
PAST AND PRESENT

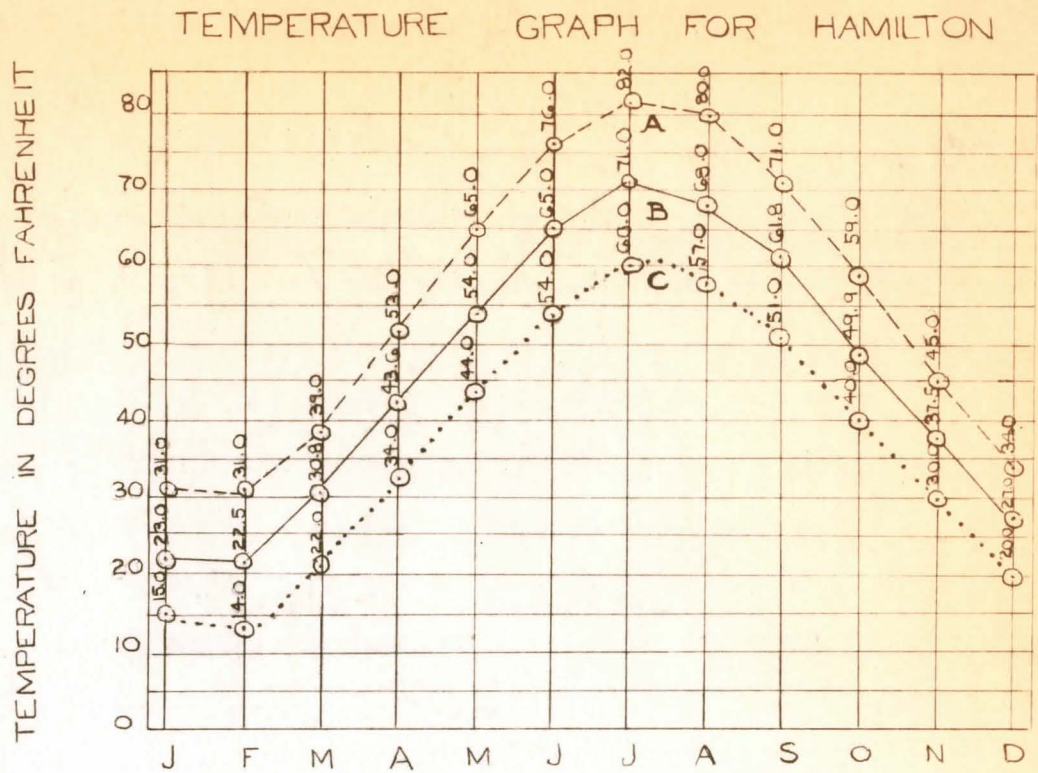
bedrock has provided the basis for tile making in the area. The even sandy terrain has made it possible to instal and extend urban subdivisions, water and sewerage facilities as well as roads. Burlington's proximity to the lake provides both a beautiful setting for residential development and an abundance of water for domestic and industrial purposes. The protection offered by the Escarpment has been of great importance in making Burlington so rich from an agricultural standpoint. In all these ways Burlington's setting is most favourable.

CLIMATE

(See Appendix A-4)

The climate of the Burlington area is temperate. The coldest month is February, with a mean temperature of 22.5°F., and the warmest month is July, with a mean temperature of 71.0°F. (See Figure 8.) The growing season is 203 days in length. The whole area belongs to the humid continental climate having cool summers with abundant rainfall in all seasons¹. Figure 9 indicates that the distribution of precipitation is remarkably uniform throughout the year. There is no summer maximum as is found at many "continental" stations. The average annual rainfall is 30.93 inches and the months of June, July and August receive an average total rainfall of 8.05 inches. (See Figure 9.) The average annual snowfall totals 58.2 inches representing only 5-6 inches of water. As far as wind direction is concerned, there is a strong predominance of west and south-west winds especially in winter, which is partly matched by a "tertiary maximum" from the northeast. The only wind direction of negligible

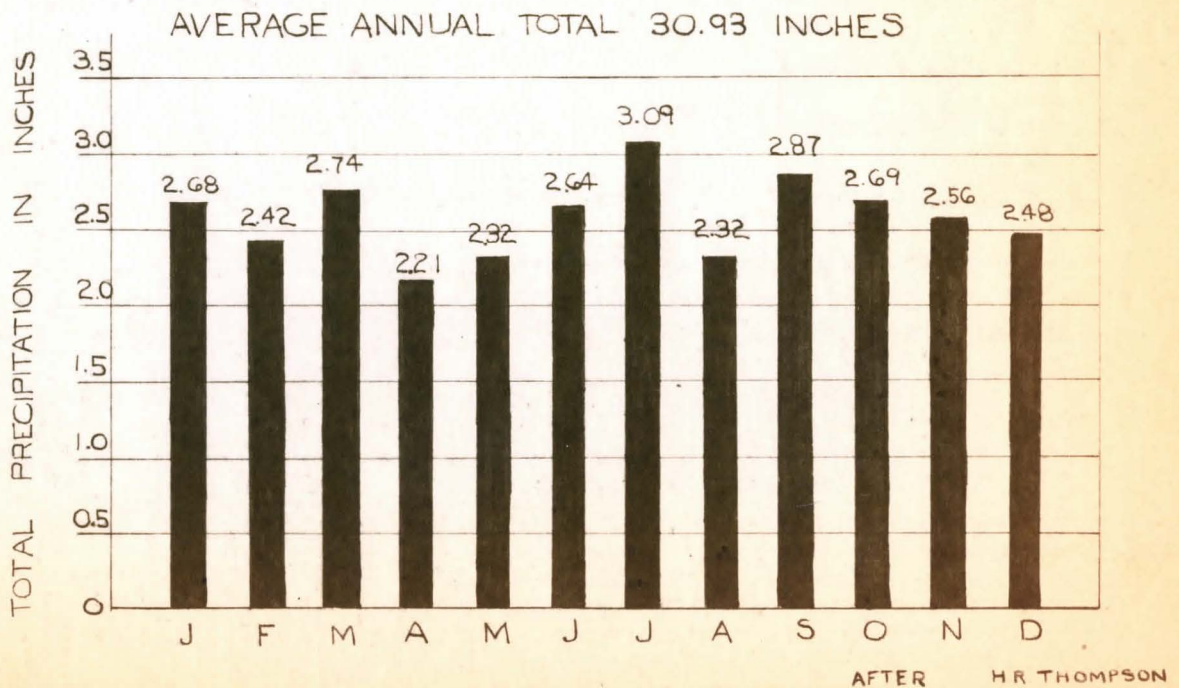
1. D. F. Putnam, The Climate of Southern Ontario: (Scientific Agriculture), pp. 401 - 446, Ottawa, 1938.



CURVE A - AVERAGE DAILY MAXIMUM TEMPERATURE FOR EACH MONTH
 CURVE B - AVERAGE DAILY MEAN TEMPERATURE FOR EACH MONTH
 CURVE C - AVERAGE DAILY MINIMUM TEMPERATURE FOR EACH MONTH

FIGURE 9

AVERAGE MONTHLY TOTAL PRECIPITATION INCLUDING SNOW
 AS WATER-EQUIVALENT FOR HAMILTON



importance is the southeast¹.

In the study of climate it should always be remembered that there are many climatic controls such as physiography, water bodies, latitude, altitude, prevailing winds, air masses, fronts and storms. The Niagara Escarpment for example, has a great influence on the climate of Burlington. "It tends to deflect winds, to cause temperature contrasts between its crest and foot, to induce condensation when humid air is forced to rise over it, and hence to cause the development of clouds, fog and precipitation. Conversely, air moving down over the Escarpment tends to be warmed adiabatically, leading to evaporation rather than condensation"². Lake Ontario tends to exert an ameliorating influence in summer and winter and the frost free period extends from early May often to late October, an average of 153 days³. Burlington's climate is also influenced by cyclonic storms which are more pronounced in the winter and which induce great changeability and variability in the weather.

Of all the reasons responsible for the success of agriculture in the Burlington area, perhaps none is more important than climate. Agriculture has benefited from the long growing season, the plentiful supply of moisture⁴, the gentle winds, the protection from late frost

-
1. H. R. Thompson, The Climate of Hamilton, Ontario, p. 11, Hamilton 1956.
 2. Ibid. p. 2, 3.
 3. D. F. Putnam, The Climate of Southern Ontario: (Scientific Agriculture), pp. 401 - 446, Ottawa, 1938.
 4. Though there is a moisture deficiency in summer, irrigation is widely practised compensating for the deficiency.

in the spring and from early frost in the fall, and the abundance of sunshine in the growing season. The warm summers and invigorating winters place relatively few hardships upon the inhabitants of the area, making all seasons pleasant for working and playing.

SOILS

The soils of the Burlington area were mapped many years ago and placed in the Fox Sandy Loan Series. (See Appendix A-5.) The soils of this series in the Burlington area lie between the Iroquois gravel ridge and the shorelines of Hamilton Harbour and Lake Ontario. They are sandy and well drained, being derived from a parent material consisting of fine sandy locustrine deposits overlying till. In studying a typical profile of this series, one sees a light brown and yellow sandy loam over a reddish brown clay sand. Underlying this one finds stratified sand and silt. The soil is relatively stone free and the profile is fairly deep - the bottom of the B horizon is about thirty inches down.

The soils on the gravel ridge and on the steeper slopes of the Escarpment, as one might suspect, are very thin. The upper horizons of the soil are low in organic matter. This factor combined with low inherent fertility, makes utilization of the soil difficult. A great deal of time must be spent in looking after the soil in order to maintain fertility and prevent what pedologists call the "burning out" of the soil. Due to the open structure of the sandy soil, the percolation of water is very rapid and the soils dry out quickly. If the Burlington district farmer is to acquire maximum yields then irrigation must be practised.

The soils of the Burlington area have through hard and continuous work been made exceptionally productive. The widespread use of manures, fertilizers and green crops along with the use of extensive irrigation schemes

have made the Burlington area an excellent truck farming and fruit growing district.

From a cultural point of view, the sandy soils have made it relatively easy to excavate foundations, build roads and instal pipe lines. The soils because of their open structure, dry out rapidly in the spring time and it is an established fact that Burlington residents are amongst the first in the Hamilton area to get out and rehabilitate their lawns and gardens at the conclusion of winter. The Burlington Golf Club has perhaps the longest season of any of the local golf clubs, because of the well drained sandy soils which make possible an early spring start and a late fall finish.

VEGETATION

At one time the Burlington area was covered with a dense deciduous forest growth. The associations of this deciduous forest were dominated by broad leaved trees such as blue ash, black walnut and white oak. Coniferous species were poorly represented with white pine being the most dominant. Hemlocks were scattered throughout the district and red juniper was commonly found on the poorer gravelly sites¹.

As the area is now closely settled, the forest cover has been greatly reduced and tree growth is found only on surfaces unsuitable for agriculture or urban development, or in residential areas where the shade, beauty and protection of a woodland cover is desired.

Vegetation in the Burlington district is greatly influenced by soil and relief. On the heavier clay soils, large stands of white oak and

1. W.E.D. Halliday, A Forest Classification For Canada, p. 28, Ottawa, 1937.

red oak are found. Flowering dogwood and sumac are very common on the gravel ridges. White ash are found in the drier soils while black ash, elms and silver maples tend to congregate in the stream valleys where there is an abundance of moisture. There tends to be a general scarcity of all varieties of the maple tree and the number of beech trees is also relatively small. The white pine, which was attacked in the middle 1800's by the town's lumber interests, is another tree which can be found only in limited numbers.

While the forest cover has been largely taken off, the remaining trees are still important to the life and beauty of the Burlington community. The woodland growth of the Hendrie Valley provides the natural framework around which the idea of the Royal Botanical Gardens was conceived and developed. The beautiful homes in the newer subdivisions are made even more beautiful and valuable if surrounded by a wooded environment. A picturesque backdrop is provided for the town by the forested slopes of the Escarpment which, in the fall of the year, are ablaze with colour.

SUMMARY

In summary the following may be said about Burlington's physical setting. From the standpoint of the physiography and geology of the area, the Iroquois Plain, through its even terrain has proven to be adaptable for agricultural and urban uses. It serves as an excellent corridor for rail and road routes and provides many raw materials, such as sand, gravel and clay, for local industry.

Climatically speaking, Burlington enjoys the benefits of a temperate climate. Blessed with a long growing season, warm summer days, an abundance of sunshine, and freedom from late frosts in the spring and early frosts in the fall, agriculture has prospered in the area. While there is

a moisture deficiency in July, irrigation, practised by most farmers, ensures an abundance of moisture for crop growth.

The sandy soils, though having a low inherent fertility and though being rather easily "burnt out", have been made extremely productive through the use of artificial fertilizers, manures and green crops. From the standpoint of urban development, the sandy soils facilitate excavation of foundations, the instalation of pipe lines and the building of roads.

The original forest cover, once very important to the economy of the town, is today greatly reduced in extent. It serves merely as a decorative feature of the Burlington landscape.

It can be seen, therefore, that the physical setting offers few limitations and many benefits to human settlement and activity in the Burlington area.

CHAPTER 111

THE HISTORICAL DEVELOPMENT OF BURLINGTON

The modern and progressive municipality of Burlington, as we know it today is a far cry from the small community of Indian tepees which huddled together on the present site of the town just over 179 years ago. There is even little resemblance between the Burlington of 1957 and the Burlington of 1900 or even of 1920 for that matter. Gone are the flour and lumber mills, the large farmsteads and the old wharves. Gone are the days of muddy roads and steamship travel between Hamilton and Burlington. A new Burlington has evolved. The evolution was at first slow but in recent years it has been most rapid. A study of this evolution reveals many factors associated with setting, economic activity and transportation which have been largely responsible for the changes which have taken place in Burlington. Let us, therefore, briefly trace this process of evolution which has transformed Burlington from a rural agricultural garden region into a rapidly expanding urban community of residential, commercial and industrial functions.

EARLY SETTLEMENT: UNTIL 1810

The first people in this part of the country, as elsewhere on the continent, were of course the Indians. Certain tribes of the Mississauga moved back and forth across the Burlington Bar according to the direction in which they were driven by famine or foes.

In 1778 the British Government bestowed a large tract of land consisting of 3,000 acres at the western end of Lake Ontario upon the great Indian leader Chief Thayendanegea, better known as Captain Joseph Brant, as a reward for his services in the British cause. The land was selected by

the Indian chieftain himself and on the present site of Burlington, the village of Wellington Square was established. For many years Brant's people occupied the lands. In 1805 a portion of the land was settled by pioneers from among the United Empire Loyalists - chiefly from North Carolina - who crossed the Niagara frontier to build homes in the area. (See Appendix B-1.)

In 1810 the first regular survey of the village was made by Mr. James Gage, who in that year had purchased from the trustees of the Brant estate $338\frac{1}{2}$ acres in the "northeast angle of Brant's Block"¹. It was noted by Mr. Gage that the site of his purchase was exceptionally suitable for agriculture; and under his guidance the small hamlet of Wellington Square (in the Brant period a mere assemblage of tepees), was rejuvenated and extended.

BURLINGTON AS A GRAIN MART AND COMMERCIAL PORT: 1810-1856

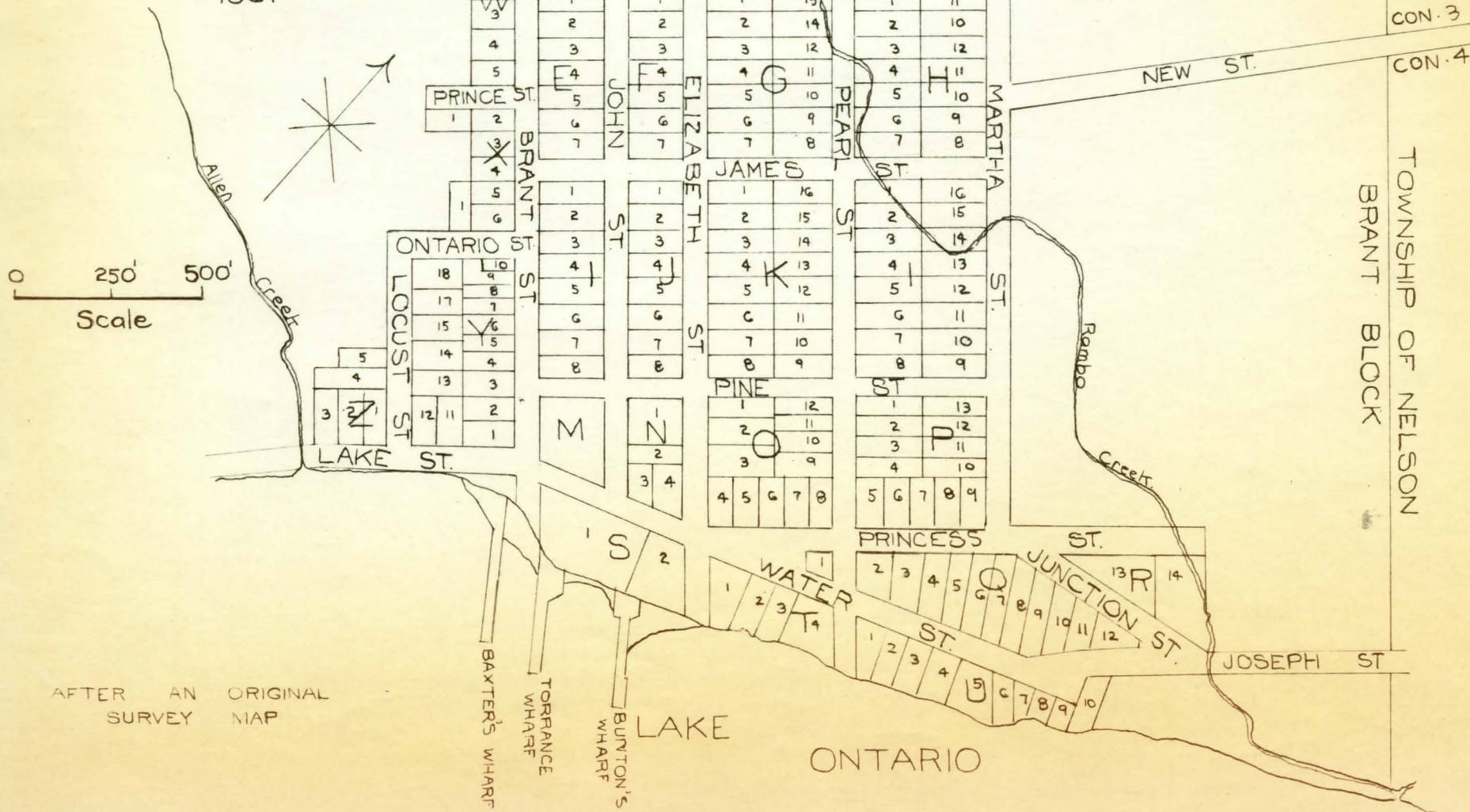
During the Gage regime the village increased in territorial size and population. From 1810 until 1856 the village enjoyed considerable prosperity as a grain market. One of the first steam driven flour mills in Upper Canada was established in Wellington Square during this period and several wharves soon sprang up along the lake front. (See Figure 10.) More and more land was cleared for the specific purpose of growing cereals, primarily wheat, oats and barley. This was true of the whole lake plain from Burlington Plain (Aldershot) to Bronte. The cereal business became so great in the Wellington Square district that all property, save that which had been sold off in village lots, passed into the hands of Messrs. Torrance and Company, merchants of Montreal. The Torrance Company set about to organize

1. Atlas of the County of Halton, p. 82, (Walker & Miles), Toronto, 1877.

FIGURE 10

THE VILLAGE OF WELLINGTON SQUARE

1867



the grain business in the area. Grain travelled from Wellington Square to the communities of Niagara-on-the-Lake and York (Toronto).

During the summer months, the wharves and warehouses of Wellington Square, Port Nelson and Bronte were kept busy receiving the grain from lines and lines of wagons. It was a frequent occurrence to see "upwards of 200 teams in a single day delivering their gold producing cargoes"¹, to the warehouses at Wellington Square.

The Burlington district played a very significant role in the War of 1812, because of its strategic geographical position. During the War it was common to see British gunboats escaping from the larger American vessels by sailing through the natural channel, of the beach strip, between Lake Ontario and Hamilton Harbour. The village served as a very important supply base for General Brock's British and Canadian troops during the War.

This early period of Burlington's history was a period in which the village was renowned as one of the major ports in the southwestern end of Lake Ontario. A road had been built in 1808 linking York with Wellington Square but, though modern by early nineteenth century standards, it made for nonetheless, a long and difficult journey between the two communities. It proved more economical to ship the bulky grain by water transport and thus very little was carried for any distance by road transport. The village was for a short period of time an even more important port than Hamilton. In 1825 the Burlington Canal was begun and completed in 1832 replacing the natural opening alluded to in the above paragraph. The year 1832 marks the end of Wellington Square as a major commercial port, for after this date, vessels found it more convenient to sail to Hamilton with their cargoes.

1. Atlas of the County of Halton, p. 82, (Walker & Miles), Toronto 1877.

"LUMBER FEVER": 1856-1870

After the close of the Crimean War (1856) and consequent decline in the price of wheat, business in grain materially decreased as did the price of property in Wellington Square. With the introduction of railways, in the 1850's, the amount of produce shipped by water rapidly fell off. Added to this, it has already been pointed out that the building of the Burlington Canal virtually put an end to Wellington Square's brief dominance as a commercial port. For these reasons this village, like many others, fell into an ordinary existence which continued for several years. At the conclusion of the 1850's, however, the economic activity of the community rallied under the influence of a boom in the lumber business. In the early days of the village's existence, the forests of Wellington Square and district had been cut back with little thought to the economic value of the fallen trees. While the odd lumber mill had sprung up the backbone of the economy was, nevertheless, grain. In the late 1850's, however, several new planing mills were built and the white pine, oak and maple stands of the Wellington Square area took on economic importance.

Business prospered until roughly 1870, when, with the almost complete destruction of the local timber stands the "fever" subsided. The commercial fabric of the village, however, had gained new strength during this period and it was largely through its ability to "weather the storm" that Wellington Square suffered as lightly as it did.

Manufacturing was but little represented, which is surprising since the locality was well suited for it even in 1870. Manufacturing interests consisted of a flour mill, the J. Allen Waggon and Carriage Factory, and the Crooker Bros. and Company Wire Works.

During this era the ties which Wellington Square had developed

with the surrounding communities were becoming stronger. This is especially true in the case of Hamilton. The village was located on the major road linking Toronto with Hamilton. Between Wellington Square and Hamilton there were two toll gates, one at Aldershot and one near the entrance of the city. The roads of the district at the time of Confederation (1867) were very difficult, especially after rain or thaw. Under the poor conditions, the traveller was often forced to desert the roads in favour of the adjacent fields.

Steamship travel was also important in this period. While Wellington Square was no longer a commercial port of any significance, passenger traffic between Hamilton and Toronto, and indeed all the way down to Kingston, was important. Steamships were becoming faster and competition between the various ships plying the local waters increasingly keen. (See Appendix B-2.)

In 1853 the Hamilton-Toronto line of the Great Western Railway had been built just fringing the village, passing through Freeman to the north. As yet, however, the railway was of little importance to the community. There was no rail line across the beach strip and, in fact, the wagon road Traversing the strip was interrupted at the Burlington Canal. Due to the small amount of traffic, no attempt had been made to construct a bridge over the Canal. A small ferry transported the travellers from one side to the other.

1873
?

BURLINGTON, "THE GARDEN OF CANADA": 1870-1930

In 1870, the village of Wellington Square, upon petition, became the village of Burlington. The community along with the surrounding area was at this time gaining a widespread reputation for its dairy herds and for its large plantation farms and gardens. (See Appendix B-3.) The village had enjoyed considerable prosperity and prestige as a farming area prior to

1870 but it was not until this period that the full agricultural potential of the district was realized. The variety and quality of Burlington's horticultural products were recognized in all markets. Melons and tomatoes were the most renowned products of the agriculturally rich and climatically favourable Burlington area. The productivity of the soil, the presence of abundant and rapid transport (now becoming more essential and consequently more available), the long growing season, the abundance of moisture, the warm summer days and especially the energy and hard work exhibited by local growers - all helped to turn the Burlington area into a thriving agricultural region.

The Burlington fruit growers were pioneers in the export of perishable fruits in cold storage, thus attracting the attention of horticulturists in California, southern France and Britain. In 1889 the Burlington Fruit Growers Association was organized and in the same year the Burlington Horticultural Association, their joint purpose being to establish better fruit farms in the district. In 1896 the Burlington Fruit Experiment Station was established under the joint control of the Ontario Agricultural College and the Ontario Fruit Growers Association. The aim of the station was to determine the varieties of fruit best adapted to the soil and climate of the area. All this organizing, planning and experimentation was reflected in the size and prosperity of the local farms; farms which were as large and as wealthy as any to be found in Ontario.

In 1873 Burlington, with a population of roughly 1,000 was becoming quite popular as a summer vacation village. Its situation from a mercantile point of view was good and the municipality had a small but thriving commercial colony supplying the local farms. In 1873 and up until the early 1900's,

however, industry was virtually non-existent in the Burlington community, the emphasis being upon agriculture and the rural life.

This new era of agricultural productivity was accompanied by a rapid period of rail and road development - elements of transportation so necessary for the distribution of agricultural produce to their markets. In 1870 a large swing bridge was built across the Burlington Canal and in 1875 Burlington became still more closely linked with Hamilton when a branch of the Hamilton and North Western Railway was built across the beach strip. A railway station was built near the present site of the Brant Museum, where stood the old Brant House (after 1914 the Brant Hospital). The village by 1875 was thus serviced by two rail lines - the Great Western, soon to become part of the Grand Trunk Railway System, and the Hamilton and Northwestern Railway. (See Figure 11.) In 1896 a Radial Line¹ transportation system was built across the beach strip from Hamilton to Burlington. In 1904 the Radial was extended to Oakville, but this section never paid and was abandoned in 1926. In 1915 the Hamilton and Toronto Cement Highway was finished (Highway No. 2.) and in 1923 the road along the beach strip was paved. In 1919 a new bridge was erected across the Canal, thereby linking Burlington with another paved Provincial Highway, to Niagara Falls and Buffalo, forging a further link with other cities and towns of the Province.

The importance of these new rail and road facilities to the wealth and economic stability of Burlington cannot be over emphasized. Without them the perishable farm produce of the Burlington community could never have reached the markets of Southern Ontario. (See Appendix B-4.)

1. The Radial Line was an electric railway system. Besides the line from Hamilton to Burlington and Oakville, there were also lines from Hamilton to Stoney Creek, Brantford and Dundas.

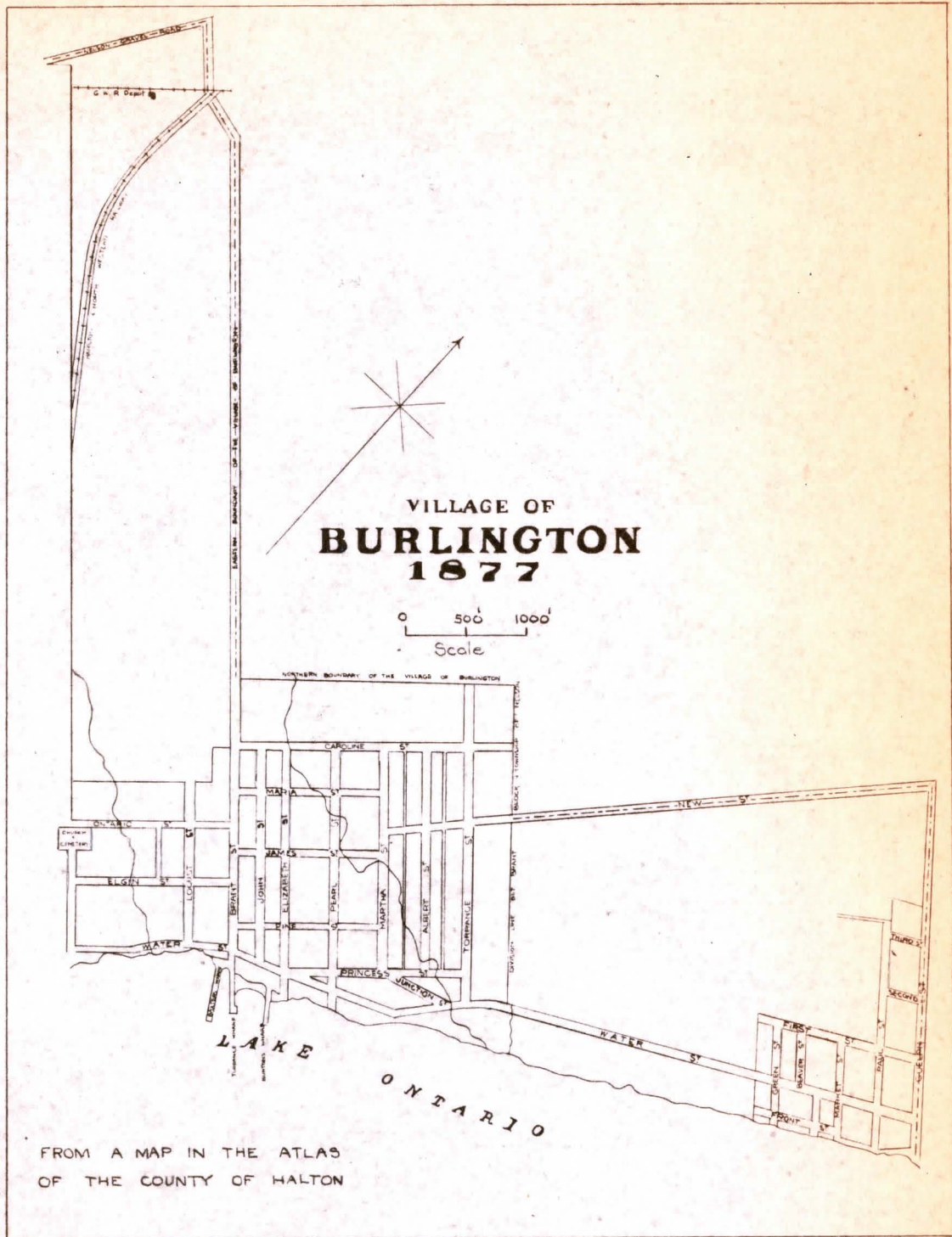


FIGURE II

After 1921 agricultural activity in the Burlington district entered a new phase. There was from this date a trend towards smaller holdings and an increase in the production of market garden crops - egg plants, celery, tomatoes, lettuce, asparagus, etc. Fruit farms remained agriculturally important but the number of livestock gradually declined. The increased demand for fruit and vegetables, created by a rapid growth of urban settlement in Hamilton and Toronto, forced mixed farming into the background. Mixed farming tended to move farther eastwards and northwards. There was also an increased trend toward agricultural specialization both in growing and in marketing. Prior to 1921 the products of the Burlington district were marketed through brokers in various cities, through the Hamilton market and through individual buyers. In 1921 an effort was made to eliminate the middlemen and to secure a greater return for the grower without an increase in the consumer price. Therefore, a co-operative marketing organization was formed in the Burlington area. In 1922 the members of this organization had a total of 765 acres under fruit and vegetable cultivation. (See Appendix B-5.)

After 1900, urbanism made its first appearance on the Burlington scene. The Radial and railway lines, the new paved highways, the coming of the car, and after 1921 the operation of buses between Hamilton and Burlington, all helped to establish a vogue of suburban living by city workers.

In 1914 Burlington advanced a further step municipally when its status changed from that of village to that of town. The town had in the past been noted as a popular summer retreat for Hamiltonians but after 1910 many of the city's more prosperous residents moved to Burlington to take up permanent residence in spacious homes along the lake shore or along the quiet shady streets of the community.

With the innovation of suburban living, the population began to show a marked increase and by 1927 Burlington had a population of roughly 3,000 people. In order to make the town a better place in which to live many local improvements were made. A waterworks was built in 1909 and in 1914 the first sewage and storm conduits were laid. The coal oil lamps, which had been used to light the streets since 1892, were replaced in 1900 by electric street lights and by 1920 the town had good telephone and postal services. The paving of streets was begun in 1922. On the lake front a long and massive revetment wall was built by the Federal Government, with a further addition being added at the foot of Brant Street in 1926. Lake storms had entirely destroyed the old wharves which, though seldom used after 1890, had stood as reminders of another day. The improvements in rail and road transportation routes had virtually put an end to steamship travel between Burlington and Hamilton.

Perhaps one of the most significant changes to take place in the Burlington landscape after 1900 was that associated with the growth of industry. By 1930 the following industries were located in the town: the Niagara Brand Spray Company, the Vera Chemical Company, the Hyslop Canning Company, the Glover Basket Company, the Dominion Canning Company, Tuck's Milling Company, the Nicholson Lumber Company and the Hercules Powder Company. These industries provided the nuclei around which future industrial expansion would take place.

BURLINGTON SINCE 1930: AN EXAMPLE OF URBAN GROWTH

There have been many significant changes in Burlington since 1930. While the town suffered during the depression of 1929-1936, like most towns of its size, the trend towards urban development, started just after the turn

of the twentieth century, could not be thwarted. With the completion of the Queen Elizabeth Way in 1939 and with the widening and improving of existing highways, to say nothing of better railway service, the flow of people and capital into Burlington has been very great. Gone are the days of plantation farming. Market gardening while still prominent throughout the Burlington district is nonetheless rapidly declining. New subdivisions have sprung up where once stood proud old farms. Industry has rapidly moved into the area to avail itself of the excellent power, transportation, market and labour facilities which Burlington has to offer. The commercial district has been extended and modernized in order to keep pace with a constantly increasing population.

On January 1, 1958, a new era in Burlington's history will commence when the annexation of Nelson Township and East Flamborough Township, below the escarpment, becomes effective. The town on this date will have a total land area of 55,000 acres and, supporting 32,000 people, will be ranked as Ontario's eighteenth municipality, in population. This annexation reflects the ever increasing influence of urbanism in the Burlington area and represents the enthusiasm and optimism of a rapidly growing community.

SUMMARY

A study of the historical development of Burlington is a study of man's ability to take advantage of the benefits which his natural environment has to offer. The early settlers combined the favourable elements of the natural environment with their own resourcefulness to turn Burlington into an important agricultural region. Prior to 1856, grain growing was the dominant form of agricultural activity practised in the Burlington area. In succeeding generations, however, dairying, fruit farming and market gardening

stepped in to fill the gap left in the local economy when grain growing subsided. Giving further proof of their resourcefulness, the Burlington settlers, when hit by depression in 1856, were quick to take advantage of the local forest resources and a thriving lumber industry was established. The benefits of being located so strategically with respect to transportation facilities and markets has always been apparent. The water, road and rail routes of the area have made it possible to speed to market the agricultural products of the community. The proximity to Hamilton and Toronto has always ensured a large local market for Burlington produce.

The expansion of Burlington in both population and area has, until recent years, been very gradual. Industrial and commercial activity on a large scale were slow to develop. Early industry was associated primarily with agriculture and as the population was relatively sparse, there was little commercial development in the town.

In the first two decades of the twentieth century, as transportation methods improved and as the trend towards suburban living became more popular, the Burlington community began to show a marked increase in population.

New industries have risen within the last ten years to stand beside the older industries of the town. The expanded commercial needs of the community are now being met by newer and larger stores. Municipal facilities are being increased to keep pace with residential expansion. In all the excitement of building and development the large orchards and productive fields are fast disappearing. The local farmers are finding it difficult to compete against the powerful interests of industrial, commercial and residential development. Ironical as it may seem it appears that many features of the Burlington setting, once so beneficial to agriculture, are today proving themselves to be even more beneficial to the forces of urbanism.

CHAPTER IV

THE RESIDENCES, COMMERCIAL ESTABLISHMENTS AND INDUSTRIES OF BURLINGTON, THE REGIONAL NODE¹.

Over the past 179 years, the land of Burlington has become differentiated areally and functionally. The land use pattern of the town is, of course, directly related to the functional pattern. Burlington's three major functions, the residential, the commercial and the industrial, are all in their own ways, major users of land.

With these assertions in mind, let us turn our attention to a study of the town's residences, commercial establishments and industries. In the section on residences, attention will be directed to a study of residential function, residential land use, and residential home types and their distribution. In the section dealing with commercial establishments, not only will Burlington's commercial function and land use be discussed, but also the town's retail trade pattern. In the section on industries, a discussion of the industrial function and land use will be linked with an investigation of the town's fourteen industries. This will be followed by a description of the other ways in which the town's land is used. In conclusion a brief discussion of Burlington's zoning policy will be undertaken.

RESIDENCES

The Residential Function

An examination of Figure 12 reveals that more land in Burlington is devoted to residential use than to any other. Thus it can be seen just how important the town's residential function is. There has been a great number of new homes built in the town over the past few years, as the following figures taken from the Business Year Book (1954-1956) indicate:

1. See footnote 1, page 5.

Homes built in 1953 - 190

1954 - 177

1955 - 216

For many years now the town has been looked upon as one of the most attractive residential communities in the Hamilton area. Its pleasant rural atmosphere and proximity to Hamilton have been instrumental in making it one of that city's major residential suburbs. While Burlington's role as an important Hamilton residential suburb is dealt with more fully in Chapter VI, it should be mentioned here that for a time the town was exclusively, from a suburban point of view, the home of many wealthy Hamiltonians. In recent years, however, an overall rise in the standard of living combined with improvements in transportation facilities have largely destroyed this exclusiveness making Burlington the home of not only the wealthy, but also of those in the lower income brackets. Modern residential subdivisions, consisting of homes built especially for the commuter, have sprung up on land once used entirely for agricultural purposes. These subdivisions include surveys such as Orchard Park, Maplewood Drive, Somerset Court and Burlington Heights.

In face of the many demands for land for residential purposes, the price of property has risen sharply. Land which was worth \$ 3,000 an acre for residential use in 1951 is now, in many cases worth from \$ 6,000 to \$ 8,000 an acre. A lot having a fifty or sixty foot frontage costs from \$ 60 to \$ 70 a foot. Lake front property is extremely difficult to obtain and is worth from \$ 150 to \$ 200 a foot.¹ Future prospects, from a residential point of view look very encouraging. While the amount of land available for residential subdivision within the present boundaries of the town is limited, a new era will open on January 1, 1958 when Nelson Township and 1. These figures were obtained from the W. A. Eliot Real Estate Agency in Burlington, and represent land values for 1956.

Aldershot are annexed. The annexation of these two areas will provide ample room for future residential expansion.

Residential Land Use

Burlington's residential land use pattern consists basically, of an older residential core surrounded by zones of newer residential development. The older residential core, as one might suspect, is located in the heart of the town, in the southwestern corner. It is here, in a square bordered by Martha Street on the east, Caroline Street on the north, Maple Avenue on the west, and Water Street on the south, that the old village of Wellington Square had its beginning. It is in this area that we find the majority of Burlington's older residences. It should also be noted, however, that there is a small concentration of older residences in the Freeman area, along the Queen Elizabeth Way.

The newer residential areas are found north and east of this older core. There is a concentration of newer homes between Caroline Street and Baldwin Street, west of Brant Street, and also in the Burlington Heights Survey, west of Brant Street and south of Graham's lane.

In Burlington's north-central district, in the vicinity of Blairholm Avenue, Dryncourt Drive and Wellington Avenue, some of the town's newer and more attractive residential subdivisions may be found. The homes in this district have been built on land which Burlington acquired from the Bell farm, in 1947, and from the Blair farm, in 1951. In 1953, 100 acres, in the vicinity of Maplewood Drive were annexed and this area of annexation has become the site of a recently completed residential subdivision.

New subdivisions have also been established in the south-eastern portions of Burlington, east of Martha Street, south of New Street and west of the Guelph Road. Some older residences may be found intermingled with res-

idences of more recent construction in the extreme south-eastern corner of the town along Green Street, Market Street, St. Paul Street, First Street and the Guelph Road. Many of these older residences stand as remnants of the old Port Nelson community which was incorporated with Wellington Square, under the name Burlington, in 1873.

More detailed information concerning Burlington's residential land use pattern will be given in the following section on Burlington's residential home types and distribution.

Residential Home Types and Distribution

(See Figure 12)

Recognizing the presence of four major home types (see Appendix C-1), it is possible to trace the distribution of the better, the middle and the poorer class homes in Burlington.

The A¹ homes, really mansions, are concentrated in a limited area along the lake front, south of Water Street and east of Junction Street. Many new A type homes are also found along Water Street in this narrow belt. Outside this lake front district, A type homes tend to be more scattered in distribution, having a limited concentration in the Courtland Place - Dryncourt Drive area. The occasional single A type home may be found in some of the newer surveys and, in a few instances, in the older residential areas of the town.

Second class, or B type housing, is most common in the newer subdivisions. The greatest concentration of B¹ homes is found in the Orchard Park Survey and in the general vicinity of Courtland Drive and Wellington Avenue. This entire area of B¹ homes has a definite reminder of the past in the form of old apple and pear orchards. B¹ homes are concentrated in the Maplewood Drive Survey, in the vicinity of Eden Place and Halifax Place



Typical of Burlington's First Class homes.
(above) One of Burlington's beautiful lake front mansions.
(below) A modern, attractive A type home.





Second class homes characteristic of many of the newer subdivisions.

(above) Typical B¹ homes.

(below) A small compact B² home.



and in the south-eastern section of Burlington west of St. Paul Street, east of Torrance Crescent, south of New Street and north of Water Street. The concentration is less homogeneous here as many B², C¹ and C² homes are found in association with the B¹ type. The two greatest concentrations of B² housing are to be found in the Drury Land - Woodward Avenue area, just north of the sewage disposal plant and north of Birch Avenue, between Hagar Avenue and the C.N.R. line. Many B² homes are also scattered throughout the eastern and western sections of the town.

The older residential core of the town, in the south-western corner, is the area of greatest third class concentration. The C type homes are scattered throughout Burlington and their distribution gives some idea of where early residential development took place. While homes of this type tend for the most part to be well looked after, falling into the better C¹ class, there are to be found many C² homes also. They are numerous in the vicinity of Brant Avenue and Clark Street, bordering the railway. Many of these C² homes, with some renovating, could be elevated into a higher class. There is a limited concentration of C² homes at Freeman, along the Queen Elizabeth Way.

Fourth class homes (D type) are not too numerous in Burlington. They are located mainly in the older residential core area bordering the Brant Street commercial district and also along the Guelph Road. Often they are found on the fringe of a market garden. Here, in most cases, they represent old farm homes which have been allowed to decay.

The main reason for the general patchy distribution of home types in Burlington, with the exception of the newer surveys and the older residential areas, is that residential development has been most irregular. This irregularity is best displayed along the four main transportation arteries



Third Class homes.

(above) Typical C^1 homes, characteristic of the
older residential core.
(below) A typical, unattractive, C^2 home.





Contrasts in Living.

(above) One of Burlington's modern apartment buildings.

(below) A D type home.



of the town namely Brant Street, New Street, the Guelph Road and Water Street. Along these streets it is possible to find every possible sequence of home types.

The town also has an excellent representation of apartment buildings. Generally speaking, they are of recent construction, well looked after and attractive in appearance.

COMMERCIAL ESTABLISHMENTS

The Commercial Function

One of the most outstanding features of Burlington's overall growth has been the expansion of its commercial facilities. Few towns in Canada today, of Burlington's size, can boast so extensive and so diversified a shopping area.

The commercial district of Burlington has not always been so modern however. In 1941 there were only sixty-five stores in the town. In 1951 this number had risen to seventy-four. By 1956 this number had increased to 104². What have been the reasons for this very noticeable increase in the number of stores in the Burlington community?

One of the main reasons lies in the fact that the rapid increase in the town's population has led to an increase in the consumer market. The complex needs of Burlington residents cannot be met by a few stores, each selling a general line of merchandise. In view of this, existing commercial facilities in the town have found it necessary to expand and new commercial facilities have found it favourable to locate in Burlington.

-
1. Business Year Book (1945 to 1956), published by The Financial Post, Toronto and Montreal, 1945 to 1956.
 2. This figure was arrived at after personal communication with Burlington's Director of Planning, Mr. R. E. P. Serena.

Another reason for the rapid increase in the town's commercial activity lies in competition with Hamilton. Competition with Hamilton, from a commercial standpoint, has always been keen especially within the past few years. Prior to 1947 Burlington's shopping district was rejected by many local citizens. Having just arrived from Hamilton, many tended to look upon the shopping district as "drab" and "rural". In many respects they were right. The small Burlington shops could not compete with the large Hamilton stores. Hamilton merchants handling a wider variety of goods, buying in larger quantities and catering to a larger market could offer substantially lower prices than could the merchants of Burlington. With the rapid growth of the town's population, however, local commercial outlets found new cause for enthusiasm. This enthusiasm has, in the past few years, become tangible in the form of better commercial facilities for Burlington.

Perhaps the term diversity more than any other identifies the reason for the great success enjoyed by the commercial elements in the town today. From the standpoint of groceries and foodstuffs, the town is well supplied with fruit and vegetable, meat and grocery markets. The three main grocery chain store organizations in Ontario - Dominion, Atlantic and Pacific and Loblaws - each has a modern supermarket in the town, providing a wide range of groceries and foodstuffs.

The town has two hotels, the Coronation House and Sherwood Inn, both of which are located on Brant Street. These structures are two of the town's oldest. Burlington also has a modern motel, the Ascot, located on Water Street.

On Brant Street there is a variety of stores selling a wide range of men's and boy's wear, dry goods, hardware, electrical appliances, women's wear, drugs and medical supplies, household furnishings, office and school

supplies and shoes.

Burlington's commercial facilities offer many services to the local citizen. There are numerous barber shops, hair dressing establishments, shoe repair stores, restaurants and cleaners. The town has two funeral homes, two finance company branch offices, six bank branches, two travel agencies, an animal hospital, two commercial delivery services, a weekly newspaper (the Gazette), and two taxi companies. The medical and professional needs of the community are looked after by a great number of doctors, dentists and lawyers, many of whom work from their own homes.

One of the most noticeable features of Burlington's commercial development is the very great number of automobile sales agencies, auto repair shops and gasoline stations to be found. Every major automobile manufacturer, and even some of the smaller ones - Standard and Volkswagen - is represented by at least one agency, as is every major petroleum company.

The town has one dairy (which recently sold out to a Hamilton firm), two bake shops, a brewers retail store, and a liquor store.

Burlington is fortunate to have many modern specialty shops. These include three antique shops, a hat shop, two sewing machine centres, a furrier, a custom tailor, two carpet and drapery shops, a flower shop, a commercial photographer, several jewelry and gift shops, a pet store and a delicatessen store.

One of the most striking and most important additions to the Burlington shopping district has been the Burlington Plaza. This up-to-date modern shopping centre represents a new type of commercial development, which, introduced first in the United States, has in recent years become very popular throughout Canada. Completed in 1953, the Plaza, with its clean modern exterior and great variety of stores and products, has been attracting customers



A view of the Central Business District,
lower Brant Street.



The Burlington Plaza on Brant Street.

from a wide area. The Plaza, however, is not popular with everyone in Burlington. The merchants on lower Brant Street, in many cases have lost business since this new commercial enterprise opened.

The Plaza has many advantages over the other sections of Burlington's shopping district. It is centrally located, easily reached and provides adequate parking facilities. Also, it is bright and modern in appearance and offers extensive shopping facilities in a limited space. Despite the intensification of competition which the Plaza has brought to some segments of Burlington's commercial district it has, nevertheless, been a great asset to the overall economy of the town.

Commercial Land Use.

(See Figure 12.)

A relatively small portion of Burlington's total land area is devoted to commercial use. There is a compact central commercial district which developed originally in the Lower Brant Street - John Street - Water Street area. Its growth to the east and west has been restricted by the pressure of residential land use. In recent years the central commercial district has pushed northwards up Brant Street, but even in this direction its growth has been hampered by residential development. The main commercial district has many modern stores and offers a variety of merchandise. The newest addition is the Burlington Plaza. It marks the northern limit of the Brant Street commercial district.

Small pockets of commercial development are also found at Freeman (commercial establishments here are rather cheap and shoddy), at New Street and the Guelph Road, and on Ontario Street at the C.N.R. crossing. There is a commercial off-shoot of the Brant Street shopping district along Water Street, east of Elizabeth Street.

Burlington's Retail Trade Pattern

A study of Burlington's retail trade pattern gives one a very good idea of the extent of the town's commercial influence. Investigation discloses (see Appendix C-2) that Burlington's zone of commercial influence is extensive but not uniformly intensive. Basically, the town's trade pattern consists of three zones. (See Figure 13.) The boundaries of two of these zones are very clearly defined, whereas the boundary of the third one is not too easily determined.

At the heart of the trade area lies a small zone which is commercially dominated by Burlington. This zone is referred to as the Zone of Maximum Commercial Influence. It is a relatively small semi-circular zone composed mainly of Burlington and Port Nelson. It is from this area that Burlington commercial outlets derive the greater portion of their business. The Burlington Bakery, for example, sells 95% of its goods to customers in this zone and 98% of the Burlington Shoe Repair business is confined to this area. Most of the shops and stores in Burlington derive from 60% to 75% of their customers from this Zone of Maximum Commercial Influence.

Moving out from this central core we come to a much broader zone stretching from just west of Aldershot, through Waterdown and eastwards to Bronte. Over this area Burlington's commercial domination is less complete. This large, semi-circular belt may be referred to as the Zone of Medium Commercial Influence. Most Burlington merchants derive anywhere from 5% to 30% of their business from this zone. Certain specialty shops such as the Small Types Children's Shop (30%), the Jewel Shop (20%) and J. Farrauto, Custom Tailor (25%), find this zone an important commercial outlet. The numerous plumbing, heating and building contractors of the town draw much

business from this zone because of the widespread residential development. The F. E. Ellerbeck Oil and Heating Company, for example, has a trade pattern in which 15% of the work is done in Aldershot alone, and 10% in the area between Port Nelson and Bronte. There seems to be some indication that the eastern boundary of this Zone of Medium Influence is shifting slowly westwards. Mrs. A. H. Hucker (dry goods) and Mr. Haswell (home furnishings and electrical appliances) have both noticed a marked decline in the number of Bronte customers. While the old steady customers continue to return, very few new customers from this area have been made. This is due perhaps to the increased commercial pull of Oakville, which, like Burlington, is enjoying a period of brisk growth.

Beyond these two zones of maximum and medium commercial influence, we come to a zone where Burlington exercises only minor commercial influence. It is very difficult to fix a boundary to this extensive Zone of Minor Commercial Influence because, though many communities are served in this area, they are not all served by the same commercial outlets. Generally speaking, however, it can be said that Burlington merchants derive a relatively small percentage of their business from this zone. This Zone of Minor Commercial Influence stretches roughly from Hamilton on the west, northwards to Milton and eastwards to Oakville. Communities in this zone served commercially by Burlington include Millgrove, Milton, Cedar Springs, Lowville and Palermo. These centres are located in what might be termed a transition zone; that is a zone of communities whose shopping habits are influenced by more than one commercial centre.

The average Burlington merchant sells from 1% to 5% of his goods to people living in this outer zone. The Biller Vansickle Company (oil distributors) derives about 3% of its business from the Lowville-Milton Area.

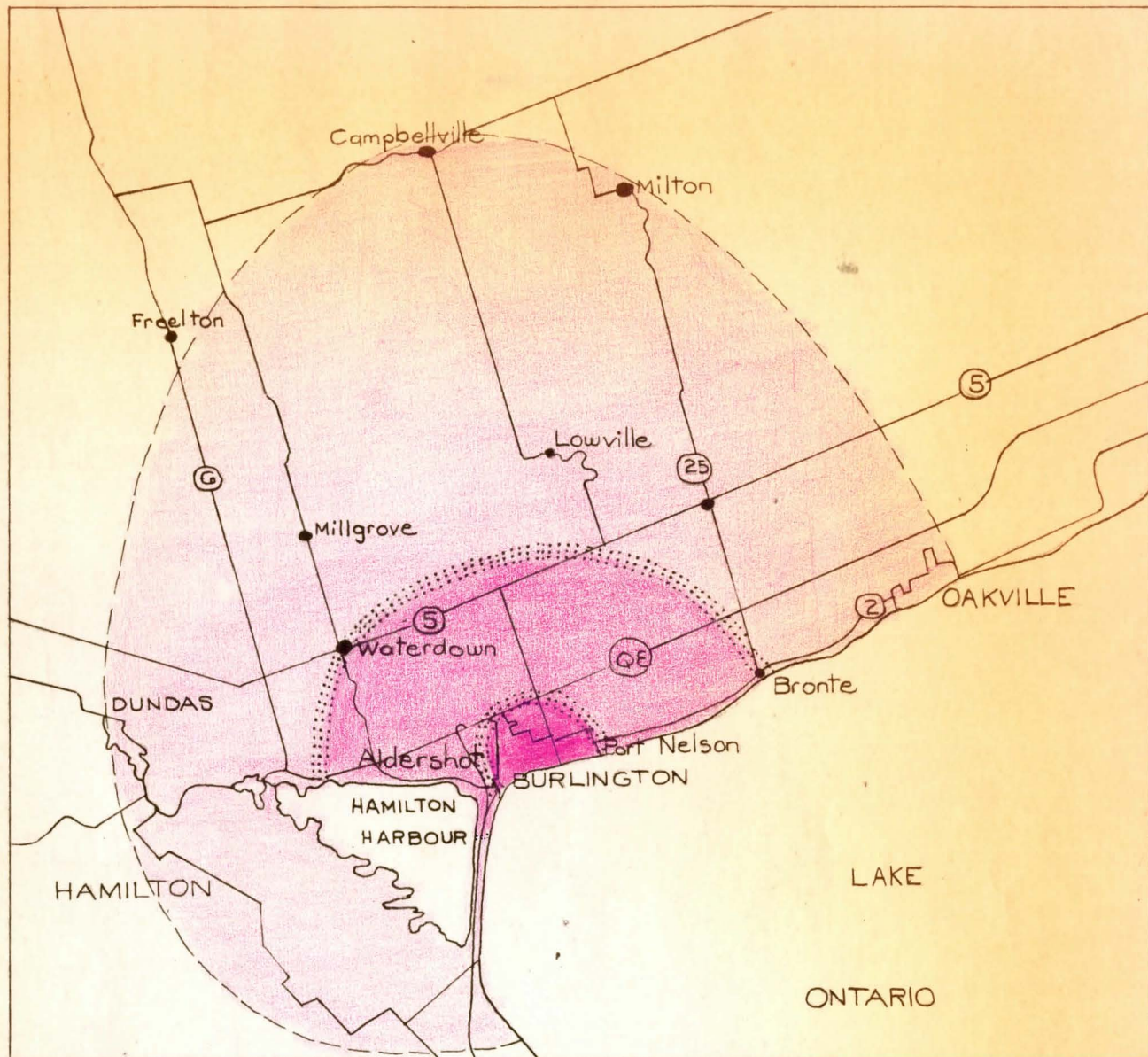


FIGURE 13

Scale lin.=4mi.

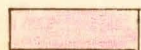
BURLINGTON'S RETAIL TRADE PATTERN



ZONE OF MAXIMUM COMMERCIAL INFLUENCE



ZONE OF MEDIUM COMMERCIAL INFLUENCE



ZONE OF MINOR COMMERCIAL INFLUENCE

The Burlington Dry Cleaners make deliveries in Millgrove, Milton and Oakville which constitute about 5% of their total business. Many people living in this zone shop in Burlington because of special service or because of a personal relationship with a store owner. This is true in the case of Koop's Travel Service, Bill Burrow's Mens Wear and Lillies Hats.

A few merchants do have extensive business contacts in this Zone of Minor Commercial Influence. The Parkdale Television and Appliance store draws 20% of its business from Oakville. While most of the commercial outlets in the town have at least one or two steady customers in Hamilton, several, such as the Roseland Flower Shop (25%) and Olson Sports and Cycle (10%), have many customers in the city.

From the foregoing discussion it should not be assumed that this retail trade pattern, with its three zones of varying intensity, represents the limit of Burlington's sphere of commercial influence. Several shops in the town, e. g. Lillies Hats and "The Twig" Antiques, attract customers from as far away as Toronto, Barrie and Montreal. In various lines of Commercial activity, where the competition is very keen, such as in the automobile business, sales area are very extensive. These factors should be kept in mind when studying the retail trade pattern of Burlington, but any attempt to represent them as being important to the general structure of Burlington's trade pattern would be misleading.

INDUSTRIES

The Industrial Function

No longer can Burlington be looked upon as purely a residential town. The growth of industry within the past few decades has dispelled any doubts which may have been held in some circles concerning the industrial

possibilities of the town. There was a time however, when it appeared that industry would never be able to emerge as an important element in an area where agriculture had been for so long the dominant feature of the economy. Early industry, for the most part, was merely a "by-product" of agriculture. Flour mills and canning factories were needed by the local farmers to process the products of the field and orchard. In some cases, these industries were built and managed by the farmers themselves. During the middle of the nineteenth century, the lumber industry was very important in Burlington, but being dependent upon local supplies of timber, most of the planing mills went out of business when the local stands were depleted.

At the turn of the twentieth century, and during the following two decades, the changes which took place in Burlington's agriculture were reflected in the growth of Burlington's industry. Many industries utilizing the natural resources of the local area were reorganized under new management. Industry had to re-tool in order to face changing markets, changing production methods and changing transportation facilities. Not only were old industries revived but new industries appeared on the Burlington scene, industries which were to give the town new blood and much needed industrial diversity.

Within the past eleven years, Burlington has seen the establishment of seven modern diversified industries, giving the town a total of fourteen plants (on January 1, 1957). These industries testify to the rapid spread of urbanization in Burlington and have brought new prestige and prosperity to the town.

Industrial Land Use

(See Figure 12)

Industry, generally speaking, is strategically placed in the town so as to take advantage of rail and road facilities. The older industries of

the town, with one exception, are concentrated in two areas. These two areas are located first, in the south-western corner of the town, along the C.N.R. tracks and second, in the north-western "Freeman" corner of Burlington. The exception referred to is the Canadian Cannery Company, Limited, which is situated on Water Street at the foot of John Street.

In the last few years a new industrial subdivision has opened up along Graham's Lane and most of the newer industries have located here. The only exception to this trend is the Jones Tool and Machine Company, which is located on Junction Street.

The Industries of Burlington

(See Appendix C-3)

Today¹, there are fourteen industries in Burlington. Their locations are shown in Figure 14.

One of the oldest industries in Burlington is the Canadian Cannery Company, Limited, located on Water Street, which took over from the old Burlington Canning Company in 1910. This company began operations originally to take advantage of the produce offered by the rich local agricultural area. The products of this industry are tomato ketchup, maraschino cherries, olives and spaghetti, the first being the most important. The tomatoes are grown locally and are brought to the plant by truck. Olives are imported from Spain and cherries from Italy. These imported commodities are brought across the ocean by ship and thence to the Burlington plant by rail transport. Distribution of the manufactured products is handled almost entirely by truck. Truck transport tends to be cheaper and faster. This latter item is of special importance when perishable goods are being transported. The consumer market is mainly local, although the national market is important and some of the company's products find their way into the United States and Europe.

1. January 1, 1957.

About half of the staff is female and most of them live nearby. During the canning season large numbers of part-time helpers are employed.

The town has a second canning company, Tip Top Cannery Limited, which is located on the Queen Elizabeth Way at Freeman. In 1925, Tip Top Cannery bought out the Hyslop Canning Company. The main products of the firm are canned asparagus, raspberries, strawberries, peaches, plums and apples. Tins and pails of jam and marmalade are also produced. The fruit is brought in by truck from a sixty mile radius. Most Tip Top goods are sold within a 100 mile radius of Hamilton and distribution is handled in the following manner: 60% by truck, 20% by rail and 20% by lake boat. In the past few years, some jam and marmalade shipments have been made to England and Scotland. While the local district is rapidly declining as a source area of raw materials for the company, the availability of cheap labour and abundant power, the large local consumer market and the excellent transportation facilities more than compensate for this disadvantage.

Perhaps the best known industry in Burlington is the A. S. Nicholson and Son Lumber Company which was formed in 1912. The present plant is located on Ontario Street, west of the railway tracks. The company also has a lumber storage yard on Maple Avenue. Business mushroomed during the First World War, on government contracts, and expanded further in 1936. The company is the largest manufacturer of windows in Canada, and also sells building materials and hardware. The firm has recently purchased a piece of property on the Queen Elizabeth Way. Here a plant to manufacture wooden trusses will soon be built. The wood and lumber supplies used by the company are brought in by rail from as far west as British Columbia and also from Northern Ontario. Hardware goods are purchased from Hamilton and Toronto. Nearly 90% of the products are sold to Ontario buyers with Burlington wholesale and retail outlets comprising 22%

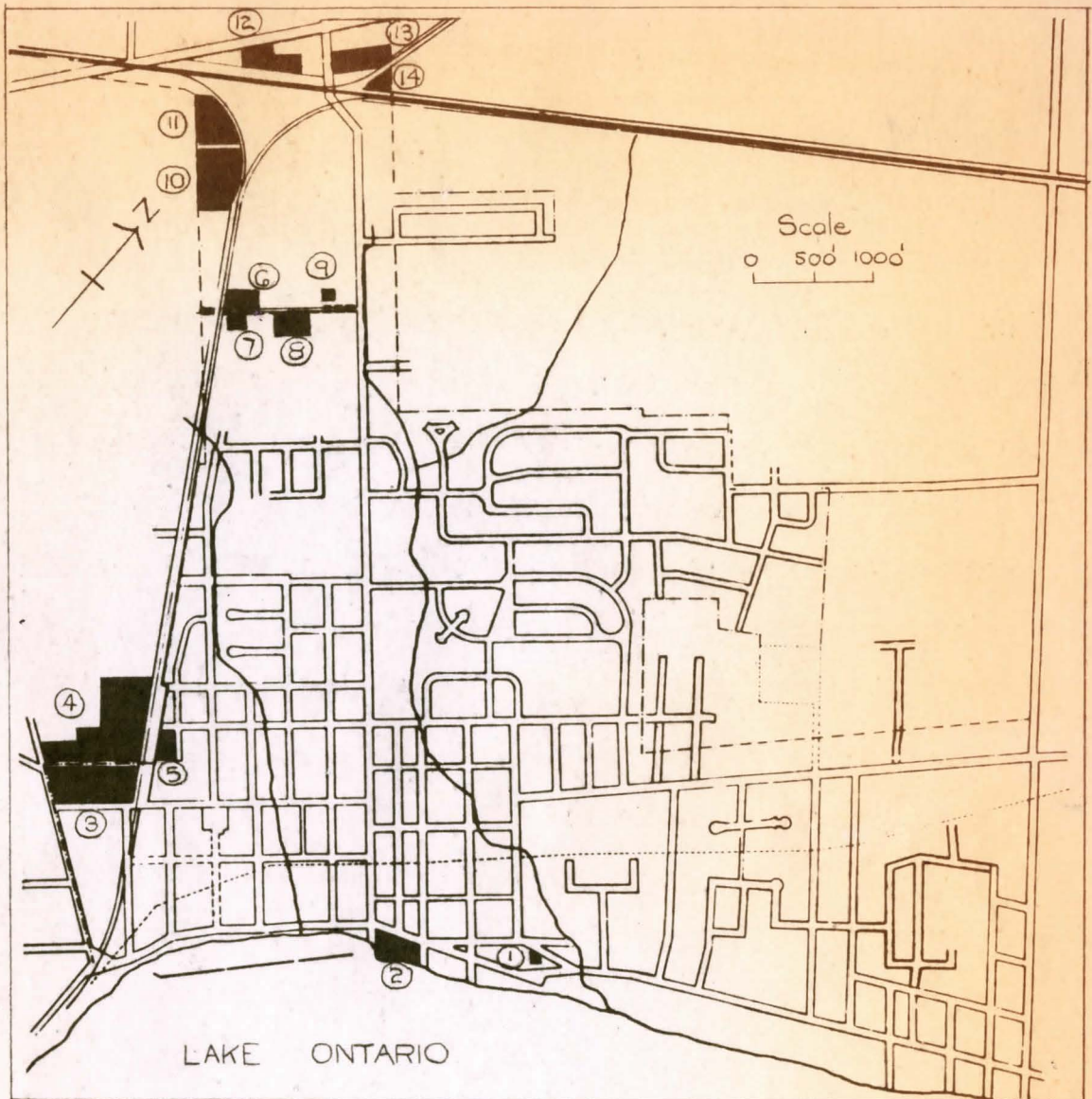


FIGURE 14

BURLINGTON INDUSTRY

- 1 JONES TOOL & MACHINE COMPANY
- 2 CANADIAN CANNERS COMPANY LIMITED
- 3 A.S. NICHOLSON & SON LIMITED
- 4 HALLIDAY COMPANY LIMITED
- 5 SUSAN SHOE COMPANY
- 6 FRANCIS SHAW COMPANY (CANADA) LIMITED
- 7 DOMINION POWER PRESS EQUIPMENT LIMITED
- 8 STANDARD CAP & SEAL COMPANY LIMITED
- 9 FRANK TOOL & DIE COMPANY
- 10 HERCULES POWDER COMPANY (CANADA) LIMITED
- 11 NIAGARA BRAND SPRAY COMPANY
- 12 TIP TOP CANNERS LIMITED
- 13 GLOVER BASKET COMPANY
- 14 BURLINGTON BRICK COMPANY

of this figure. The rest is distributed throughout the western provinces and Quebec. Of all the locating factors, the proximity to markets is most important. The firm is a large employer of labour (250 to 275 people) and has its own fleet of trucks.

The Halliday Company, occupying thirteen acres of land on Maple Avenue, just north of the Nicholson plant, has been in operation since 1916. The company handles a great variety of building materials, lumber, hardware and prefabricated summer homes. The lumber is purchased from British Columbia and Northern Ontario sources, while the hardware items are obtained from Southern Ontario manufacturers. The main markets lie in Southern Ontario. The distribution of company products depends upon the proximity of the plant to the areas where sales are made. Local deliveries are made by truck in most cases (the company has its own fleet), while distant and isolated customers are served mainly by rail transport. Employment varies from 200 to 225 people, of whom many are of foreign extraction.

The Glover Basket Company, a subsidiary of Oakville Wood Specialties, Limited, is another legacy of the past. The plant is located on upper Brant Street at Freeman. The original W. T. Glover Manufacturing Company was bought out by J. M. Wallace of Oakville in 1918 and the Glover Basket Company was formed. The company today manufactures fruit and vegetable baskets and some wooden meat containers. Hardwood logs are obtained from Northern Ontario sources and steel wire from the Steel Company of Canada, at Hamilton. 60% of the products are shipped by truck and 40% by rail, the main market stretching from the Niagara Peninsula to Montreal. One interesting point about this firm is that 95% of its machinery is run by steam power. While the immediate Burlington area is no longer a major market for the firm's fruit and vegetable baskets, the industry is by no means dead. New markets are opening up and new



One of Burlington's major industries,
A. S. Nicholson and Son, Limited,
on Ontario Street.



One of Burlington's smallest industries, the
Frank Tool and Die Company on Graham's Lane.
In the background is the Hercules Powder Company
(Canada) Limited, at Freeman.

lines of products are constantly being developed.

The town has two chemical companies, both located along the C.N.R. line at Freeman. The older, the Niagara Brand Spray Company, started business in 1909 and today produces various forms of insecticides, fungicides and herbicides. D.D.T. and similar chemicals are used in the manufacture of these products. The raw chemicals, containers and labels are purchased from an area with a radius of 100 miles from the plant. Hamilton and Toronto are the main suppliers. This company sells most of its products in Windsor, Cornwall, Meaford and the Niagara Peninsula. Most of the bulky raw materials are brought in by rail while the smaller items are brought in mainly by truck. Distribution of manufactured products is handled by both rail (80%) and truck (20%). The future looks extremely bright for the Niagara Brand Spray Company as expansion has taken place in the past and will undoubtedly continue in the future.

The second chemical company is the Hercules Powder Company, which commenced operations in 1913. The major products of this company are sizing, a heavy chemical used in the manufacturing of paper, and various types of foam killers for use in paper mills. Resin is imported from the Southern United States, soda ash from Windsor, and wax from the British American and Imperial Oil refineries. Nearly 90% of the raw materials are brought in by rail. The consumer market lies in the pulp and paper producing areas of Ontario, Quebec, New Brunswick, Nova Scotia and, to a certain extent, Manitoba. 90% of the manufactured products are distributed by rail and 10% by truck. The present and future success of this industry is largely dependent upon rapid and abundant transportation facilities.

At the conclusion of the Second World War, three new industries located in Burlington. Of these the Jones Tool and Machine Company was the first, established in 1946. The present plant, occupying a space thirty feet

by fifty feet, on Junction Street, was built in 1949. This company does general machine shop work, manufacturing precision tools and dies. The major markets lie in Burlington, Hamilton and Oakville. The company also has a few customers in Toronto and Tillsonburg. The materials used in production consist of different types of steel procured from Hamilton and Toronto plants. The distribution of materials and products is handled exclusively by railway express and truck transport. This industry is the town's smallest, from the standpoint of numbers employed, having a total employment of three skilled machinists. The location of the plant is ideal as there are many plants in the Toronto - Hamilton area which require machine tools of the type manufactured by this company.

In 1948, the Susan Shoe Company moved into Burlington, occupying the site of a wartime parachute factory. This industry produces a variety of shoes which are sold in every province in Canada to special agencies, such as the T. Eaton Company, Limited and Simpson Sears Limited. The distribution of the shoes is handled by railway express and freight. As the sales are quite scattered, there is little distribution by truck. The raw materials, consisting of leather and various fabrics for lining, along with rubber for soling, are purchased from Oshawa, Barrie, Kitchener and Toronto, while many lines of buckles, lacing and ornaments, etc. are purchased from the United States. One of the most noticeable characteristics of the labour force is that a great percentage of the help is European, half of whom cannot speak English. This industry is an exceptionally heavy user of electric power, since many power sewing machines and much shoe making equipment are employed. This company truly represents the recent rapid growth of industry in Burlington for, since 1948, the company has more than doubled in size and output.

In 1949 the Burlington Brick Company, largely because of the post



The Niagara Brand Spray Company, Limited, at Freeman. This company is an important manufacturer of insecticides, fungicides and herbicides.



The Burlington Brick Company on upper Brant Street.

war building boom in the Burlington district, established itself at the northern end of the town, off Brant Street. This industry is situated on a one and one quarter acre site bordering the C.N.R. tracks. The company manufactures concrete bricks which are sold to Burlington, Toronto and Oakville buyers. The raw materials (sand, cement, water-proofing, iron oxide and colouring) are purchased from suppliers in Freelon, Belleville, Port Colborne and Woodstock. The manufactured bricks are distributed exclusively by truck. Success or failure for an industry of this type hinges on transportation costs. Many brick companies, while perhaps situated near large sand pits, are often handicapped by isolation from the major markets. The Burlington Brick Company, however, is fortunate in being located in the heart of an area where commercial, industrial and especially residential construction are very pronounced.

The opening of new land for industrial sites in Burlington has led to the establishment of four new industries since 1953. In that year the Francis Shaw Company (of Canada), Limited, a subsidiary of a British company in Manchester, was established on Graham's Lane. Machinery for processing rubber and plastics is manufactured by this Company. Steel, electrical equipment, castings, forgings, nuts, bolts, etc. are purchased mainly from Hamilton and Toronto. They are brought in entirely by truck. The consumer market, at present, is entirely provincial due mainly to the newness of the company in Canada. There are hopes for a national and even continental market in the near future. While a spur line of the C.N.R. will eventually be constructed to serve the plant, all products are presently being brought in by truck. By locating in Burlington this company hoped to take advantage of the location (1) to service machinery supplied to American and Canadian plants by the parent company in England and (11) to provide machinery of the type produced by the large local market. A preliminary survey of the

whole of Southern Ontario was made to determine the best site for the establishment of the company. This survey showed Burlington to be the most strategically located site in Southern Ontario with respect to Canadian and United States markets. Business has been good and the company is planning to enlarge existing facilities in the near future.

Another industry to locate on Graham's Lane, in 1953, was the Frank Tool and Die Company. This very small but compact industry manufactures moulds for plastics, machine tools, dies, fixtures and special machinery. The steel parts used in production are purchased mainly from Hamilton, Toronto, Windsor and Brantford. The main markets in Ontario are Kitchener, Hamilton and Toronto. There are also a few customers in Quebec. In the United States several firms purchase machine tools and moulds from this company. These firms are found in the following states: New York, Alabama and Tennessee. Most of the manufactured goods are delivered by the company's own station wagon or by truck. They must be delivered quickly as the customers demand prompt service. Shipments going to the United States are first trucked to the border and then sent the rest of the way by air or truck transport. Like the majority of the industries in Burlington, this company recognizes the importance of being centrally located with respect to its markets. Business has been good and there are plans for expansion in the near future.

In 1955 another small industry, Dominion Power Press Equipment, Limited, moved from the basement of a home in Aldershot to its present site on Graham's Lane. This company, "a specialist in automation", produces electrical control panels which are shipped mainly by truck to customers in Ontario and Quebec; some shipments go as far as British Columbia. Transformers, panel boxes, bearings, rubber belts and electrical components are used in the

manufacturing process: many such precision parts are purchased from American sources in Connecticut and Rhode Island. This industry was originally located in Toronto but moved to the Burlington area in order to benefit from a more central location with respect to markets.

The most recently established industry in Burlington is the Standard Cap and Seal Company, Limited. The company began operations on Graham's Lane on September 15th, 1956. The main products of this industry are sanitary closures and circular disc caps used for sealing dairy products. These closures and caps are sold to 150 customers, the majority of whom are found in Ontario. Roughly 25% the total output is exported to the following countries: Colombia (Bogota), Puerto Rico, Hawaii and China. The goods are distributed to local markets mainly by truck (75%) with some going by rail (25%). Paper, pulp board and bleached sulphite are the main raw materials used; they come mainly from Ontario and Quebec suppliers. The company has been doing very well financially. Prior to 1956 the firm had a plant on the Beach Road in Hamilton but moved in 1956 to its present site in Burlington. Cleanliness of surroundings is essential for successful operations and it is largely because of this reason that Graham's Lane was chosen as the new location for the plant. The only problem associated with the Burlington site is labour supply. Most of the employees come from Hamilton and a system of pooling cars has had to be worked out to facilitate the movement of workers to Burlington. In the near future, a rail spur will be built to the plant and a new warehouse will also be built. New lines of production (paper cups and plates) are being investigated for future development and the company seems certain of a lengthy and prosperous existence in Burlington.

The enthusiasm, prosperity and optimism generated by the fourteen industries of Burlington, predict a successful future for the town's industry.

Many of the companies are planning new buildings, new railway sidings, new manufacturing lines and increased employment. None looks to the future with pessimism.

THE OTHER WAYS IN WHICH BURLINGTON'S LAND IS USED

(See Figure 12.)

While the greater percentage of Burlington's land is used for residential, commercial and industrial purposes, there is, nevertheless, a small but significant percentage used for other purposes.

A study of Figure 12 reveals that a small portion of Burlington's land is still under cultivation. How long this practice will continue is a matter of speculation. There has been a rapid decrease, in recent years, in the amount of agricultural land within the limits of the town and, with the rapid expansion of residential, commercial and industrial development, it seems only a matter of time before all the cultivated land will disappear.

The remainder of the land in Burlington is divided among many uses. Municipal and public facilities, schools, churches, parks and recreational purposes all claim portions of the town land.

Relatively little of the town's land is lying idle. The C.N.R. "right-of-ways", on the eastern and northern boundaries of the town, are narrow and take up little space. The Ontario Hydro Electric Commission power line, which passes through the heart of the town from west to east, does disturb the existing land use pattern of southern Burlington, but very little of this "right-of-way" is lying idle. Some sections are being used for market gardening, while others are being used for park and recreational purposes. This "right-of-way" is also being used as a "line of transportation" for an oil pipe line. The two streams which wind through the town add to the scenic

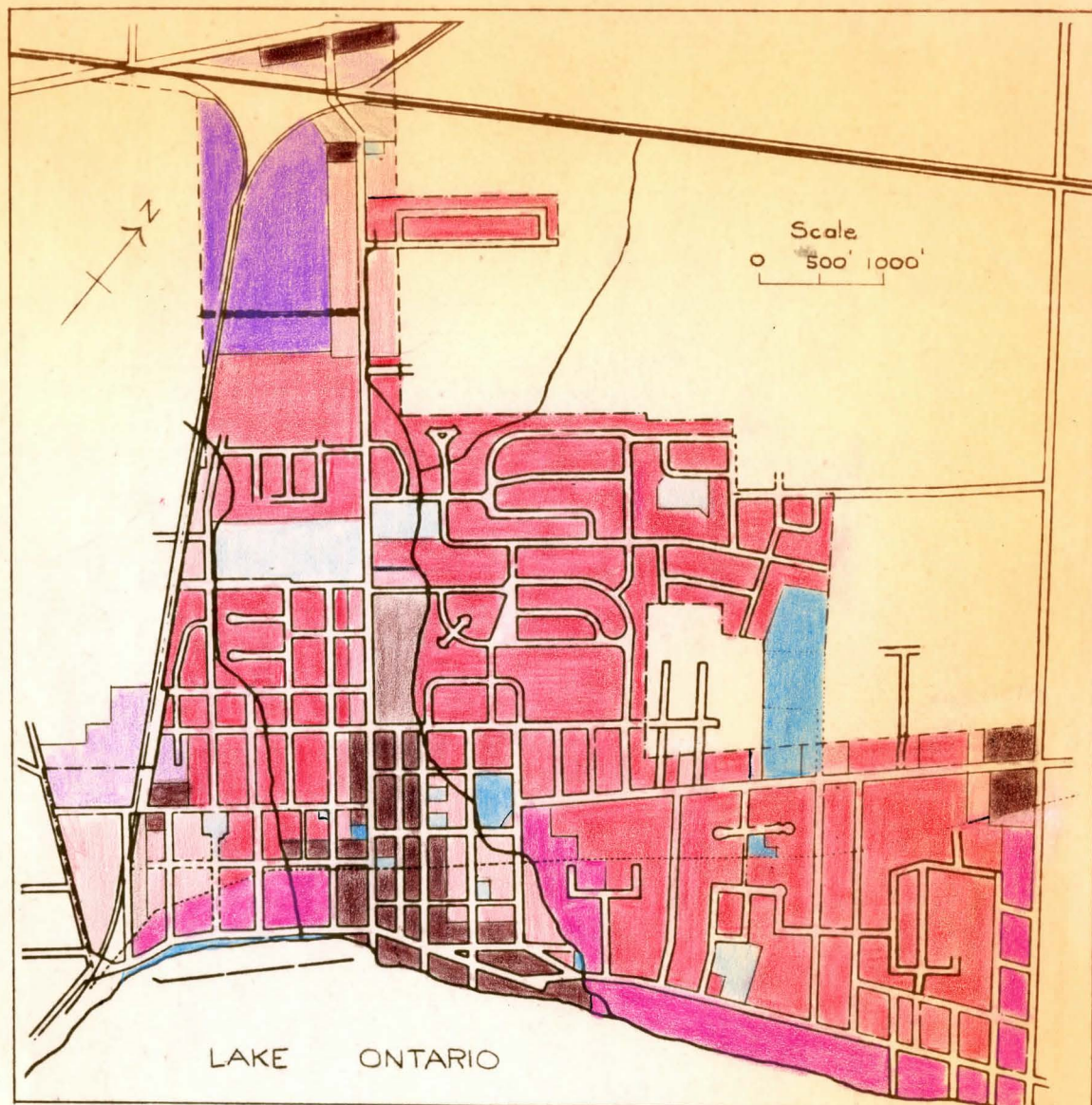







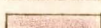




FIGURE 15
PLAN "A" OF ZONING BY-LAW 1416 TOWN OF BURLINGTON

	PUBLIC PROPERTY
	SEMI - PUBLIC PROPERTY
	RESIDENTIAL R1
	RESIDENTIAL R1A
	RESIDENTIAL R2
	COMMERCIAL C1
	COMMERCIAL C2
	COMMERCIAL C3
	INDUSTRIAL M1
	INDUSTRIAL M2

value of many a piece of residential property, but also render much land unsuitable for more profitable uses. It is quite evident, however, that Burlington has very little unused land available within its present boundaries for future development.

BURLINGTON'S ZONING POLICY

While competition between industry, commerce and residential development for land has been very keen in Burlington, it has, nevertheless, recently been well regulated by zonation. In 1953, a zoning by-law was introduced to the Burlington Council and was officially accepted.

This by-law recognizes five major categories of land use within the town. The boundaries of the various zones are shown in Figure 15. The industrial zone consists of M1 (heavy industry), and M2 (light industry). Commercial zones include C1 (limited commercial), C2 (local shopping centre) and C3 (general commercial). The residential zones include R1 (single family detached dwelling), R1A (duplex dwellings and apartments), and R2 (boarding houses and rooming houses). The two remaining zones are public and semi-public.

A copy of Plan "A" of Zoning By-Law 1416, Town of Burlington, may be found in the pocket on the rear cover of this thesis.

SUMMARY

In this rather lengthy chapter we have taken a close look at Burlington's residences, commercial establishments and industries. From this study we can see that the town has three major functions.

First, Burlington is a residential community. The residential function is by far the most important function of the town. In recent years there has been a rapid increase in the number of homes built in Burlington.

The great demand for residential property has been reflected in an increase in the value of town land. New residential subdivisions have sprung up around the old residential core, consisting of attractive modern homes.

Second, Burlington is a commercial centre. The commercial function has been rapidly gaining in importance and today the town ranks as a major retail centre. In order to keep pace with an increasing population, Burlington's commercial facilities have been extended and modernized. Providing quantity and quality, Burlington shops offer a wide variety of goods to not only town residents but also, to many residents living in neighbouring areas. Throughout the whole of Burlington's shopping district there is an ever increasing awareness, on the part of the local merchants and businessmen, of the great commercial future which lies ahead.

Third, Burlington is an industrial town. The industrial function, practically dormant in the nineteenth century, has in recent years taken on new life and promises to be of even greater importance in the years to come. Burlington's strategic position with respect to raw materials, markets, power and transportational facilities has been largely responsible for the rapid growth of industry in the twentieth century and today, the town has a prosperous and thriving industrial community.

While the bulk of Burlington's land is used for residential, commercial and industrial purposes, there is, nevertheless, a significant portion used for agricultural, recreational, public and semi-public purposes.

It is quite evident that with the annexation of Aldershot and Nelson Township, on January 1, 1958, Burlington's present land use pattern will be drastically altered. On this date, large areas of agricultural and idle land will become part of the Burlington municipality, providing the territorial space needed for future residential, commercial and industrial expansion. Burlington's zoning policy, however, ensures that such expansion will be

carefully regulated and that the land will be used in beneficial and intelligent ways.

CHAPTER V

CULTURAL GEOGRAPHY

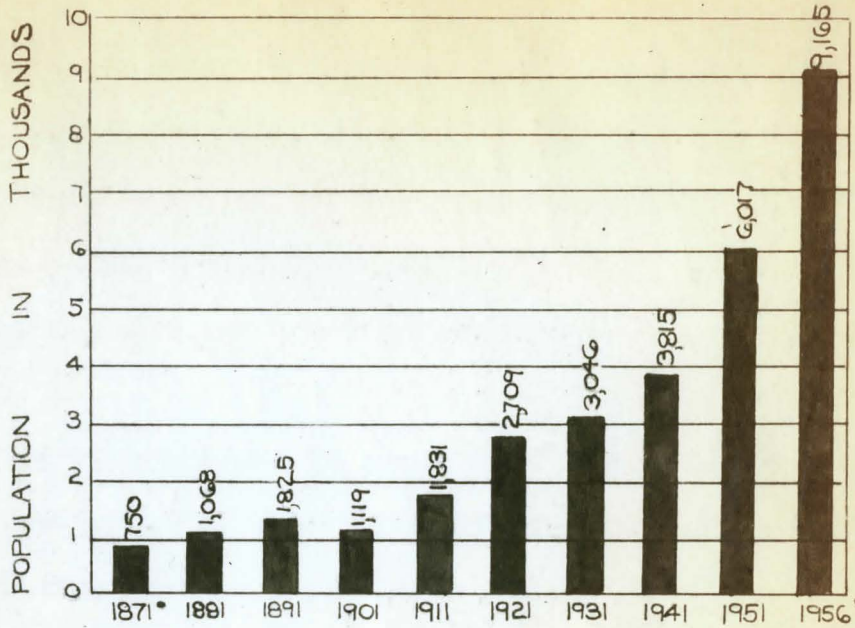
POPULATION TRENDS AND CHARACTERISTICS

The town of Burlington, according to 1956 statistics, has a population of just over 9,000¹. The population chart in Figure 16 reveals several startling facts about the rate of growth of this population. Between 1871 and 1941, the population increased by only about 3,000, but between 1941 and 1956 the increase was roughly 5,300. In other words, while the population tripled itself in the thirty year period between 1871 and 1941, nearly the same degree of increase was noticed in a fifteen year period between 1941 and 1956. The chart shows that the growth of population was gradual until 1901. This year seems to represent a turning point, for hereafter, the figures rise quite sharply. The slow growth of the population, prior to 1901, can be attributed primarily to the economic activity of the town which, until the turn of the twentieth century, was based mainly on agriculture. There was little industry or residential development since a great percentage of the land was under cultivation. After 1901, however, as agriculture gradually subsided and as urban interests moved into the town, Burlington's population began to show a marked increase. Since 1941, the trend towards suburban living has seen a continuous movement of city people into the Burlington community. This movement has caused Burlington's rate of population increase to rise more rapidly than at any other time in the town's history.

Burlington, with a population of over 9,000, is roughly the same size as Fort Erie, Dundas, Oakville, Preston and Cobourg, all towns in Southern Ontario. The graph in Figure 17 illustrates several interesting points about Burlington's growth when compared with those of two other towns of similar

1. Burlington's population at the end of 1956, according to the town assessor was 9,165.

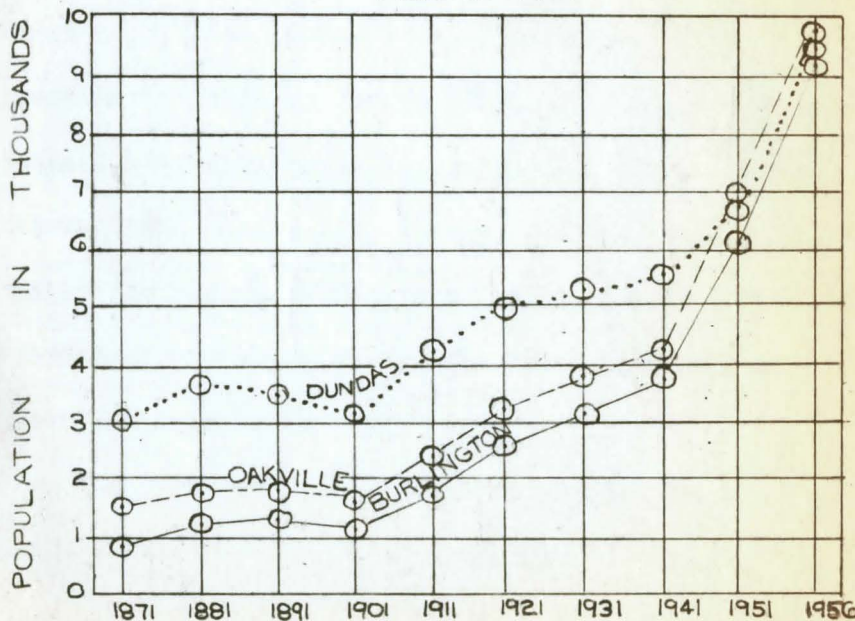
FIGURE 16



A CHART SHOWING THE GROWTH
OF POPULATION IN BURLINGTON
1871 — 1956

* FROM BURLINGTON
RECORDS

FIGURE 17



A GRAPH COMPARING BURLINGTON'S
POPULATION GROWTH WITH THOSE
OF DUNDAS AND OAKVILLE
1871 — 1956

ALL STATISTICS, EXCEPT
WHERE INDICATED, ARE
FROM THE CENSUS OF
CANADA REPORTS

population, namely Oakville and Dundas. The growth lines of Burlington and Oakville closely parallel each other and show a gradual then rapid rise after 1901. Dundas, whose population growth has been fairly steady, except for a brief decline in 1901, has, nevertheless, not shown the phenomenal increase that both Burlington and Oakville have experienced since 1941. In 1958, Burlington will jump far ahead of Oakville and Dundas in population when Aldershot and Nelson Township are annexed, giving it an estimated population of 32,000.

From the standpoint of racial origin, the population of Burlington has always been predominantly British. Many of the early settlers were United Empire Loyalists. Scottish and Irish immigrants first made their appearance after 1820, in most cases setting up small farmsteads. After 1900, other small groups of immigrants came to Burlington. They included Germans, Italians and Frenchmen. Since 1920 there has been a noticeable increase in the number of Dutch new-comers to the town. Many came originally to work on farms but have since taken up positions with local industries.

According to the last official Canadian Census of 1951, 81.3% of the total population of Burlington was of British origin as opposed to 89.7% in 1941. Post war immigration has, in the past few years, been bringing increasing numbers of Europeans into the Burlington area.

With respect to religious affiliations, the Protestant sects have always been dominant. In 1951, 84.8%¹ of the town's total population was listed as Protestant. In 1951 the breakdown of population by specified religious denominations took the following form:

1. Ninth Census of Canada, 1951, Ottawa, 1953.

DENOMINATIONS	NUMBER OF PEOPLE
Baptist	247
Church of England	1,767
Greek Orthodox	39
Jewish	2
Lutheran	43
Mennonites	3
Presbyterian	748
Roman Catholic	672
Ukrainian Orthodox	30
United Church of Canada	2,294
Others	172

In the last five years many of the minority religious denominations, like the Christian Reformed Church (Dutch), have taken on new prominence in Burlington's religious life.

Occupational statistics for 1956 are not yet available, but the following, published in 1951, give some indication of how Burlington's labour force is employed:

TYPE OF WORK	LABOUR FORCE	
	Total 1903 Males	566 Females
Property and Managerial	338	20
Professional	188	80
Clerical	128	178
Manufacturing and Mechanical	468	86
Construction	149	1
Transportation and Communication	149	11
Commercial and Financial	211	53
Service	72	104
Others	200	33

Attention should be drawn to the great concentration of males in the manufacturing and mechanical, and in the property and managerial fields. The majority of women are concentrated in clerical and service employment.

The growth of population in Burlington is increasing at a most rapid rate and this will surely have a marked effect upon the future racial, religious and occupational make-up of the Burlington community. Already there are indications that the traditional characteristics of the population are being changed.

BURLINGTON'S INSTITUTIONS AND IMPORTANT PUBLIC BUILDINGS

(See Figure 18.)

Religious Institutions

Burlington is a town noted for its many fine religious institutions. Prior to 1834, the people of Wellington Square were ministered to by itinerant missionaries, but in that year, on property donated by Chief Brant, the present St. Luke's Anglican Church was built.

The Presbyterian Church is represented in Burlington by Knox Church, which was formed in 1845 as a congregation only. The present church edifice, at the corner of Elizabeth Street and James Street, was built in 1877 and has been used by the Presbyterian community ever since.

In 1852 a small number of settlers attached to Methodism formed a society in the village but it was not until 1893 that a United Church was built. In that year Trinity United Church was established when the Methodists, a portion of the Presbyterian Church and a few minority groups united, moving into the present church building on Elizabeth Street. Today, Trinity has one of the largest congregations in the town.

The Church of St. John the Baptist is one of Burlington's oldest, having been constructed in 1853. It is located at the corner of Pearl Street

and Pine Street and was the home of Burlington's Roman Catholics until 1953. In that year the new St. John's Church building, on Brant Street at Blairholm Avenue, was officially dedicated and the old church was turned over to the Greek Catholics.

In 1875, Calvary Baptist Church was built at the corner of Ontario Street and Locust Street. The church was closed for a few years, prior to 1904, but was reopened in that year and has been faithfully meeting the religious needs of its community ever since.

On upper Brant Street, the Freeman Gospel Tabernacle, with its large and enthusiastic congregation, has been the scene of services since 1929.

The Christian Reformed Church, located on the Guelph Road at First Street, was established in 1954 when an old Sunday School building was turned into a church. This church caters to the religious needs of the Dutch people living throughout the Burlington district.

The newest church to be built in the town, Burlington Baptist, a member of the Baptist Convention of Ontario and Quebec, was opened in February of 1955. Standing at the corner of New Street and Bridgman Avenue, it is now the religious home of many families who previously attended Hamilton churches.

The recent increase in Burlington's population has greatly affected the town's religious life. In most churches, there has been a startling increase in the size of the congregations. In order to handle the expanded religious needs of the community, additions have been made to many of the older churches and several new churches have been built. In some of the larger churches it has been necessary to hold two Sunday morning services. In the past few years, new religious denominations have established churches in Burlington, greatly expanding the town's sphere of religious activity.



The Burlington High School on Baldwin Street.



The new St. John's Roman Catholic Church, on
Brant Street at Blairholm Avenue.

Educational Institutions

The educational needs of Burlington are being met by a high school, three public schools and a separate school.

The oldest school in the town is the Central Public School, which was built at the corner of Brant Street and Baldwin Street in 1912. It was enlarged first in 1923 and then again in 1950. The school has a staff of eighteen teachers serving a total enrolment of 570 students.

In 1919 the East Burlington Public School was built on Water Street just east of Stratheden Drive. At first it consisted of four rooms and combined with the Central Public School had a total enrolment, in 1927, of 525 pupils, and a teaching staff of twelve. An addition was made to the front of the school in 1952. The school today has a staff of fourteen full-time teachers and three part-time, serving a student body of 510.

The Burlington High School for many years functioned merely as a Continuation School, occupying a portion of the Central Public School. In 1922, four acres of land were purchased by the town at the rear of the Central School and the first section of a fully equipped high school was erected. In 1927, the school had an enrolment of 235 students. In 1929, 1950 and in 1955 a series of additions were made in order to provide more room for Burlington's growing secondary school needs. The school offers general and commercial courses to a total of 990 students taught by a staff of thirty-nine teachers. At present, conditions are extremely crowded as the school area includes Burlington and Nelson Township. A new high school, now being built in Nelson, should be ready for use in September of 1957.

In 1948, St. John's Separate School was built on Brant Street adjacent to St. John's Roman Catholic Church. In 1948 it had an enrolment of seventy-four pupils. In just over eight years this enrolment has increased

to roughly 450 students. In the face of this great increase, several additions have been made to the school. All Separate School children are welcome and a special bus brings students in from the surrounding district.

The newest addition to the educational facilities of Burlington is the Wellington Square Public School, on Yorkshire Crescent, which opened on September 4th, 1956. It has a staff of fourteen full-time teachers and one part-time, and a student body of 491.

In the field of education, as in the field of religion, Burlington has been faced with many problems: There have been, until recently, inadequate facilities, overcrowding and overtaxed teaching staffs. These problems have been partially solved through the enlargement of the older schools and through the building of new schools.

Important Public Buildings

Burlington possesses many important public buildings. The town is fortunate in having a large and modern public library. For a time the home of the library was in the Municipal Building on Brant Street, but in 1952, it moved to its present location, an old home on Elizabeth Street, formerly owned by Dr. Speers. A modern addition was opened in 1956 providing room for both an auditorium and increased book space. The Burlington Public Library today has 20,000 volumes and a total of 4,000 card holders.

In 1936 a new Post Office was built on Brant Street to meet the expanded postal needs of the community. Mail is presently being delivered to homes in Burlington, Port Nelson and Aldershot. The present facilities are overcrowded and there is need for more help and a larger building.

Burlington has no town hall proper, the town offices being located in the Municipal Building, once the home of the Public Library. Until 1956 the Water Board occupied the basement of the building while the Town Clerk

and the Burlington Council established themselves on the main floor. In late December of 1956, the new Inter-Urban Area of Burlington-Nelson building was opened and the Water Board and the Planning Board both moved to this most attractive location on Maria Street. In the last six years, a new fire station, a department of works building and a police station have been built, all of which combine modern design with utility.

The old Anglican Sunday School, on Elizabeth Street, is today, the home of H.M.C.S.C. "Iron Duke", a Sea Cadet division while the town's original fire hall is being used by the youth of Burlington as a Scout Hall.

One of Burlington's most famous tourist attractions, in the summer, is the Brant Museum. This museum, standing south of Highway No. 2 just east of the Brant Inn, contains much information concerning the town's history. Here many old relics, recalling the past glory of the Burlington district, may be found.

RECREATIONAL FACILITIES

Burlington is one of the few towns in Ontario to have a full-time Recreational Director. He is hired by a seven member Recreation Commission and is responsible for managing the parks, the arena and the overall recreational programme of the town.

The town has a modern arena, which was officially opened in January of 1951. It has an ice surface measuring 80 feet by 185 feet, a modern ice-making plant, seating accommodation for 1100 and a standing capacity of 1,000. In the winter it is used by skaters from the surrounding district. There are several skating clubs and as many as 1600 people have used its facilities on a single day.

The town has very well run recreational programmes for both the winter and summer months. In the winter, there is an organized minor hockey



Two of Burlington's popular recreational facilities.
(above) The Burlington Arena.
(below) The Burlington Golf & Country Club.



league for the town's youngsters, while in the summer, baseball, tennis and soccer facilities are provided in the major parks. In the summer months a day camp is run at Lowville for the town's children. The various service clubs such as the Legion, the Lions and the Kinsman, give generously of their time and money to ensure the smooth running of the town's recreational programmes.

Regulated swimming along the lake front inside the breakwater has been very popular in past summers, but the cool waters of Lake Ontario and pollution tend to reduce the attractiveness of this pastime. A modern swimming pool is to be constructed in the near future, thereby eliminating Burlington's dependency upon Lake Ontario for swimming facilities.

The town has numerous parks which are very popular in the summer months. They include Gore, Hydro, Lions, Wellington, Coronation and Lakeside Parks.

The Burlington Curling Club (built in 1954), the Burlington Yacht Club (now located on the Harbour side of the Burlington Bar just north of the Canal) and the Burlington Golf and Country Club are all very popular with the adults of the town.

SERVICES

Transportation

In this age of automotive transportation, the town of Burlington has reason to be grateful for her position as "hub of the highways".¹ The Queen Elizabeth Way, one of Canada's most modern super-highways, the Lakeshore Highway (Highway No.2), and an extensive network of traffic arteries branching north, south, east and west, provide Burlington with direct highway connections to many of the important cities in both Canada and the United States. Today attempts are being made to further improve local highway conditions by the construction of

1. This quotation was taken from a brochure, The Town of Burlington, Ontario, Canada, (p.5), printed in the early 1940's for the Town of Burlington.

the Burlington Beach Skyway and the extension of the Queen Elizabeth Way into Hamilton.

A comprehensive, well organized and efficient system of motor transport, comprising over sixty-eight trucking companies, serves the community and permits direct shipment of freight to any destination.

Burlington is also served by two inter-city bus systems, the Gray Coach Lines and the Hamilton Street Railway System, which provide rapid passenger transportation to both Hamilton and Toronto.

Burlington connects the main traffic arteries of three great railway systems. Through it flows the freight, express and passenger traffic of Canada's two transcontinental railroads, the Canadian National and Canadian Pacific Railways, as well as that of the Toronto, Hamilton and Buffalo Railway. Direct rail connections are also maintained with the New York Central and other leading United States lines.

Within the town itself, the streets are well looked after and are kept in a state of good repair at all times. All the streets have name signs and sidewalks (with the exception of those on the newer surveys).

Hydro Electric Power

From the standpoint of the manufacturer and industrialist, one of the outstanding attractions which Burlington offers is a practically unlimited supply of electric power. The Niagara Falls, Chippawa and Queenston Power Stations of the Ontario Hydro Electric System are only fifty miles distant and high voltage power lines feed directly into the Burlington Transformer Station, situated northeast of Campbell's Corners in Nelson Township. At this station power from the Niagara system and the Ottawa Valley system are brought together and distributed.



The busy Burlington Depot on the main line of the C.N.R.



Burlington's modern Police Station on Elgin Street.

Fire and Police Protection

The town of Burlington has a modern and well equipped volunteer fire department. It has thirty-seven men, all volunteers, and a permanent fire chief. Equipment consists of three pumping units, an emergency car and a small boat used for lake rescues. Unfortunately, at the present time, Burlington has no alarm box system. All calls are taken by the police department and relayed to the fire station.

The Burlington Police Department consists of ten officers, three cadets and a chief. It has two patrol cars and employs all the up-to-date radio equipment.

Water and Sewerage Facilities

In 1947-48, the Inter-Urban Area of Burlington and Nelson was formed for the purpose of supplying water to the two municipalities. Water from Lake Ontario is pumped into the Inter-Urban Filtration Plant, (see Appendix D-1), and then distributed throughout the area, which now includes not only Burlington and Nelson but also a great portion of East Flamborough Township. The following figures give some indication of how the water facilities have been extended to meet the increased demands of recent years:

Year	Number of Accounts	Number of Hydrants	Miles of Water Main	Peak Pumping Capacity
1935	1,050	-	-	-
1953	4,600	560	70	3,000,000 gallons daily
1956	7,133 ¹	905	105	5,500,000 gallons daily

The municipality also has its own up-to-date sewerage facilities and disposal plant. The first sewage conduit was laid in 1914 and a disposal plant was also installed. When this system became antiquated in 1954, a new \$500,000

1. Since, according to 1956 figures, each account represents 3.8 people serviced, therefore, in 1956 the Inter-Urban Water Board supplied 28,000 people with water.

disposal unit, employing a modern activated sludge system, was introduced. Approximately 4,000 non-Burlington residents are presently using the sewerage facilities of the town.

SUMMARY

Burlington has had the distinction for many years now of being an autonomous community supplying its own services, such as water, sewerage, police, fire protection, etc. and providing all the conveniences and amenities of a well ordered urban community. It is a town noted for its many fine institutions and public buildings; for its lovely parks and splendid recreational facilities.

With the rapid increase of the town's population, the existing facilities and services have, in most cases, been placed under great pressure and have had to be enlarged to meet the increased needs of the community.

CHAPTER VI

THE HAMILTON-BURLINGTON RELATIONSHIP

(See Appendix E-1)

Wherever one finds a city with a population of roughly 240,000 lying in close proximity to a town of just over 9,000 people, and linked by one of the most extensive road and rail networks in Canada, then one is bound to find a close relationship existing between the two. Such is true in the case of the city of Hamilton and the town of Burlington.

The close relationship between these two communities is traditional. We have already seen, in the chapter dealing with Burlington's historical development, glimpses of how this relationship developed and grew. Over the past several decades, it has been greatly strengthened and today has many facets. Let us then turn our attention to a study of these facets of the Hamilton-Burlington relationship.

One of the most striking aspects of the relationship between the two communities, concerns Burlington's role as one of Hamilton's major residential suburbs. At the turn of the twentieth century, when industrial growth was becoming more and more pronounced within the city, many Hamiltonians began to look elsewhere for a place to take up residence, a place where an escape from the fumes and noise could be found. Unfortunately, however, Burlington lay just outside a zone in which daily commuting between home and business was feasible. Nevertheless, Burlington, in the early 1900's was a popular summer vacation town and many found it an excellent town in which to retire. A few of Hamilton's wealthier residents did take up year-round residence in Burlington, commuting back and forth between the two communities.

Improvements in transportation facilities after 1915 soon tightened this somewhat loose relationship between Hamilton and Burlington and about 1921 there began a gradual movement of Hamiltonians into the Burlington district.

The Aldershot area was the first and most popular zone of suburbanization but with the opening of the Queen Elizabeth Way, in 1939, a trend was started which has continued with growing intensity, up to the present day. Thousands of city workers have taken up permanent residence in Burlington making the town truly one of Hamilton's most important residential suburbs.

Another facet of this Hamilton-Burlington relationship which we should touch upon is the commercial one. Hamilton with its many retail stores, offering a variety of goods does attract many shoppers from Burlington. This attraction, however, is not so great as one might suspect. In the years immediately following the Second World War, Burlington's merchants were faced with a serious problem. The increased popularity of suburban living was bringing large numbers of Hamiltonians to Burlington. Many of these former city dwellers found Burlington's shopping facilities inadequate and disappointing. Hence, they continued to do most of their shopping in Hamilton stores. In order to pull these potential customers into the sphere of Burlington's commercial influence, Burlington's central business district was, of necessity, extended and modernized.

The improvements which have and are being made in Burlington's shopping facilities have somewhat altered the structure of the commercial association between Hamilton and Burlington. The introduction of the supermarket, within the last ten years, has placed Burlington shoppers in a position of being virtually independent of Hamilton with respect to groceries and food stuffs. The greater diversification of the Brant Street shopping district has made it possible for the Burlington shopper to purchase many items from Burlington stores which were previously available only through Hamilton's commercial outlets.

It should be noted that Burlington is by no means commercially independent of Hamilton. The increased appeal of the town's shopping district has led to a

reduction in the number of sales made by Hamilton stores to Burlington customers, but many of Hamilton's commercial organizations, such as Reitmans Limited, Parkdale Television and Appliances, Parke and Parke Limited, Langley's of Hamilton Limited and the Fairweather Company, Limited, have attempted to get closer to the Burlington consumer by establishing branch stores in the town. Most Burlington homes have Hamilton milk and bread delivered to their doors¹. While today the average Burlington housewife goes less frequently to Hamilton to shop, (see Appendix E-2), she nevertheless continues to purchase a wide range of goods from Hamilton stores. Many housewives have charge accounts with the larger department stores, such as Simpson-Sears, Eatons, Eames, Robinsons and the Right House. They find it extremely simple and accommodating to phone their orders into these stores, requesting them to deliver the items ordered. Personal shopping trips to the city usually centre about the larger department stores and exclusive specialty shops which sell a great variety of merchandise. Often, under certain circumstances, shopping in Hamilton has more appeal than shopping in Burlington. This is true when an expensive luxury item is to be purchased, during the Christmas and Easter seasons, and when an item is either unavailable or not offered in a wide enough variety in Burlington. The citizens of Burlington, however, tend to be very loyal to their own stores and for the most part they will buy in Hamilton only what they cannot buy in Burlington.

Besides the residential and commercial facets of the Hamilton-Burlington relationship, there is also the industrial facet. Burlington's association with Hamilton from an industrial standpoint has been growing closer over the past few decades. We have already seen, in an earlier chapter, how important Hamilton's industry is in providing materials for Burlington's industry and also how important the city is as a market for the products of Burlington's industry. No figures

1. Of the 120 homes called upon during the course of the survey, eighty-six had city milk delivered and seventy-four had city bread delivered.

are available to show just how many of the town's citizens actually do work in Hamilton but it can safely be said, that a large percentage of Burlington's working population do find employment in Hamilton. (See Appendix E-3.) Burlington's industry, on the other hand provides a very important source of employment for the Hamilton workingman and woman. (See Appendix E-4.) Besides the number of Hamiltonians employed permanently the year-round in Burlington plants, many of the industries and local fruit farms employ a large amount of seasonal labour during their peak operating seasons, much of which comes from Hamilton.

There is also a cultural facet of this Hamilton-Burlington relationship. As one might expect, Hamilton's recreational, educational, institutional and social facilities are very popular with most Burlington residents. The "Hamilton Spectator" is the most widely read daily newspaper in the town¹ and its popularity stems from the fact that it not only gives a good picture of the national and international news, but also special attention to Burlington news. Hamilton hospitals, cinemas, lodges, sporting teams, dining and dancing facilities, and McMaster University, all draw large numbers of people from Burlington.

Many of Burlington's cultural facilities, on the other hand, offer great attraction to Hamilton residents. The Burlington Arena, the Burlington Golf and Country Club and other recreational facilities of the town are all well patronized by Hamiltonians. The Brant Inn, one of Canada's most renowned dinner-dance clubs, and the Estaminet Restaurant provide above average eating facilities; both of these establishments are also very popular with Hamiltonians.

While the closeness of the relationship between Hamilton and Burlington has been stressed in this chapter, it should be noted that Burlington has

1. Of the 120 homes called upon during the course of the survey, ninety received the "Spectator".

significant social and economic ties with other communities in Southern Ontario. Many of the town's residents work in communities outside of Hamilton and Burlington. (See Appendix E-3.) From a commercial standpoint, not all of the town's city shopping is confined to Hamilton alone. Many of the townsfolk shop occasionally in Toronto. Eatons of Toronto, and until recently Simpson-Sears, has a mail-order office in Burlington. While the "Hamilton Spectator" is the most widely read newspaper, the Toronto newspapers, especially the "Globe and Mail" and the "Star Weekly", are also quite popular indicating that Burlington's regional interests are not completely oriented to Hamilton.

SUMMARY

From the foregoing discussion it should be clear that the relationship between Hamilton and Burlington has been close and mutually beneficial. The town offers the city worker an excellent site for suburban living. The stores of Hamilton attract many Burlington shoppers either directly, through personal patronage, or indirectly, through phone and delivery service. Hamilton provides an important source of employment for people living in Burlington and offers the townsfolk many recreational, educational and social facilities.

Despite the very close ties between the two communities, the relationship is not one of master and slave. Many of the town's residents are newly arrived from other towns and cities in Ontario. Their ties with these centres are often very strong. Not everyone who lives in Burlington works in Hamilton. Many find employment in outlying areas such as Bronte, Oakville and Toronto. Burlington industry besides providing employment for the townsfolk, also provides employment for Hamiltonians. Burlington's recreational and social facilities are not only well patronized by local residents but also by many residents of Hamilton and district.

It seems apparent, that if the present rate of growth in residential, commercial and industrial development continues, Burlington will find it increasingly possible to stand apart from Hamilton. It is generally felt, however, that the close relationship which exists today between the two communities will never be completely broken.

CHAPTER VII

THE UMLAND COMPONENT OF THE BURLINGTON GEOGRAPHICAL REGION

(See Appendix F-1)

The Burlington Geographical Region, is a nodal region consisting of a node and an umland (see Figure 19), already defined on page 5. The two political segments of the umland, namely Lower Nelson¹ and Aldershot², are, because of the following criteria, considered to be parts of the Burlington Geographical Region:

First, over each of these segments Burlington exercises some noticeable form of economic influence. From the discussion of Burlington's retail trade pattern, in Chapter IV, it is apparent that the umland lies mostly³ within the boundaries of the Zone of Medium Commercial Influence.

Second, the two segments of the umland have been closely associated with Burlington in historical development. Both the umland and the node have had to face closely related problems, associated with growth and development.

Third, Burlington exercises a cultural influence over the umland. The town offers many services and cultural facilities to residents of both Lower Nelson and Aldershot.

Fourth, urbanization is bringing about greater changes in the umland just as it is in the node. Throughout the Burlington Geographical Region new residences, commercial establishments and industries are being established, creating problems which are common to every part of the region.

1. That portion of Nelson Township which lies between Highway No. 5 and Lake Ontario.
2. That portion of East Flamborough Township which lies between the foot of the Niagara Escarpment and the Hamilton Harbour.
3. A small portion of Lower Nelson, namely Port Nelson, lies within the Zone of Maximum Commercial Influence. Certain marginal areas of the umland lie just on the border of the Zone of Medium Commercial Influence and the Zone of Minor Commercial Influence.
(Compare Figure 13 with Figure 19.)

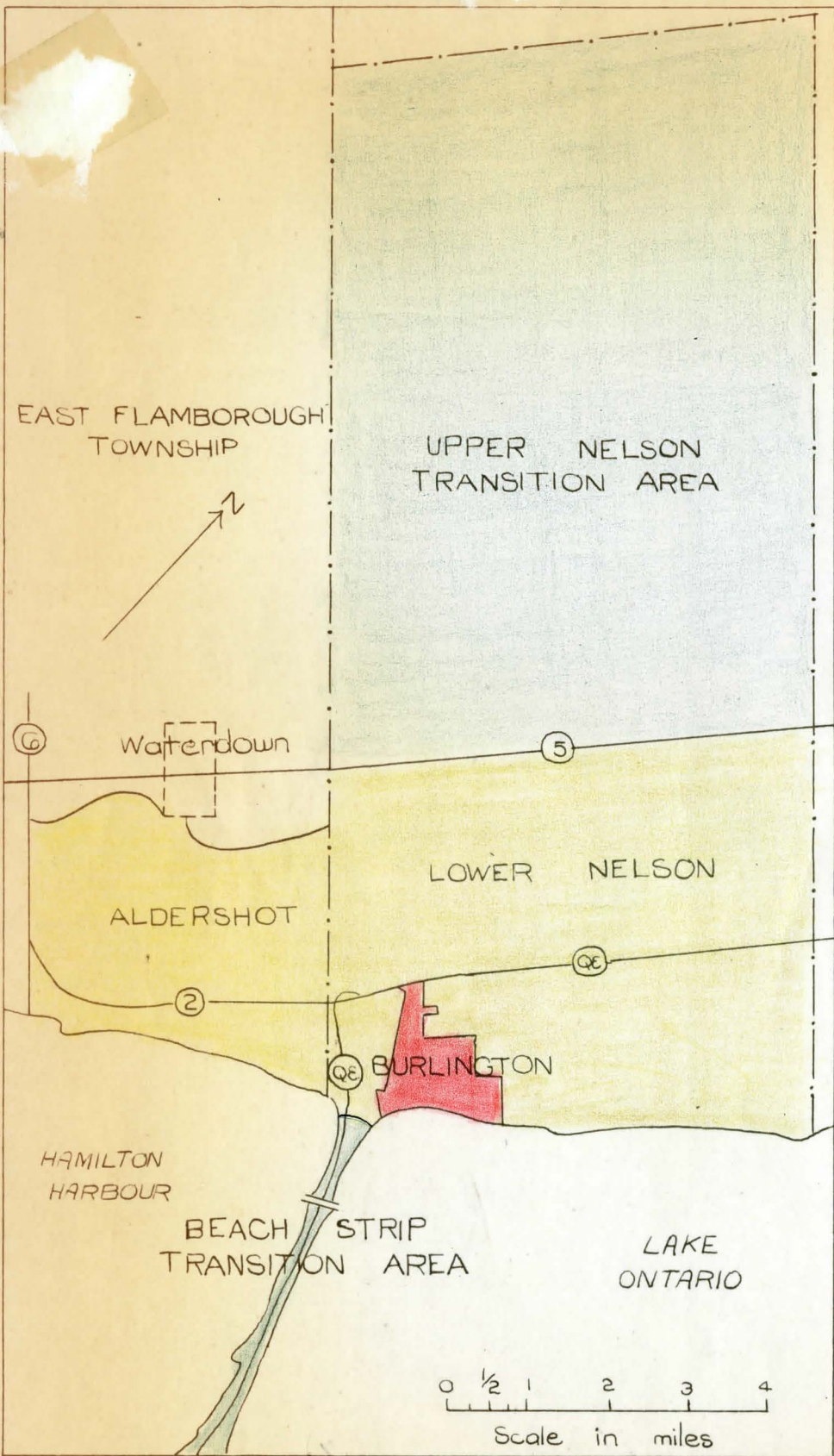


FIGURE 19

THE BURLINGTON GEOGRAPHICAL REGION AND TRANSITIONAL APPENDAGES

NODE
 UMLAND
 TRANSITIONAL APPENDAGES

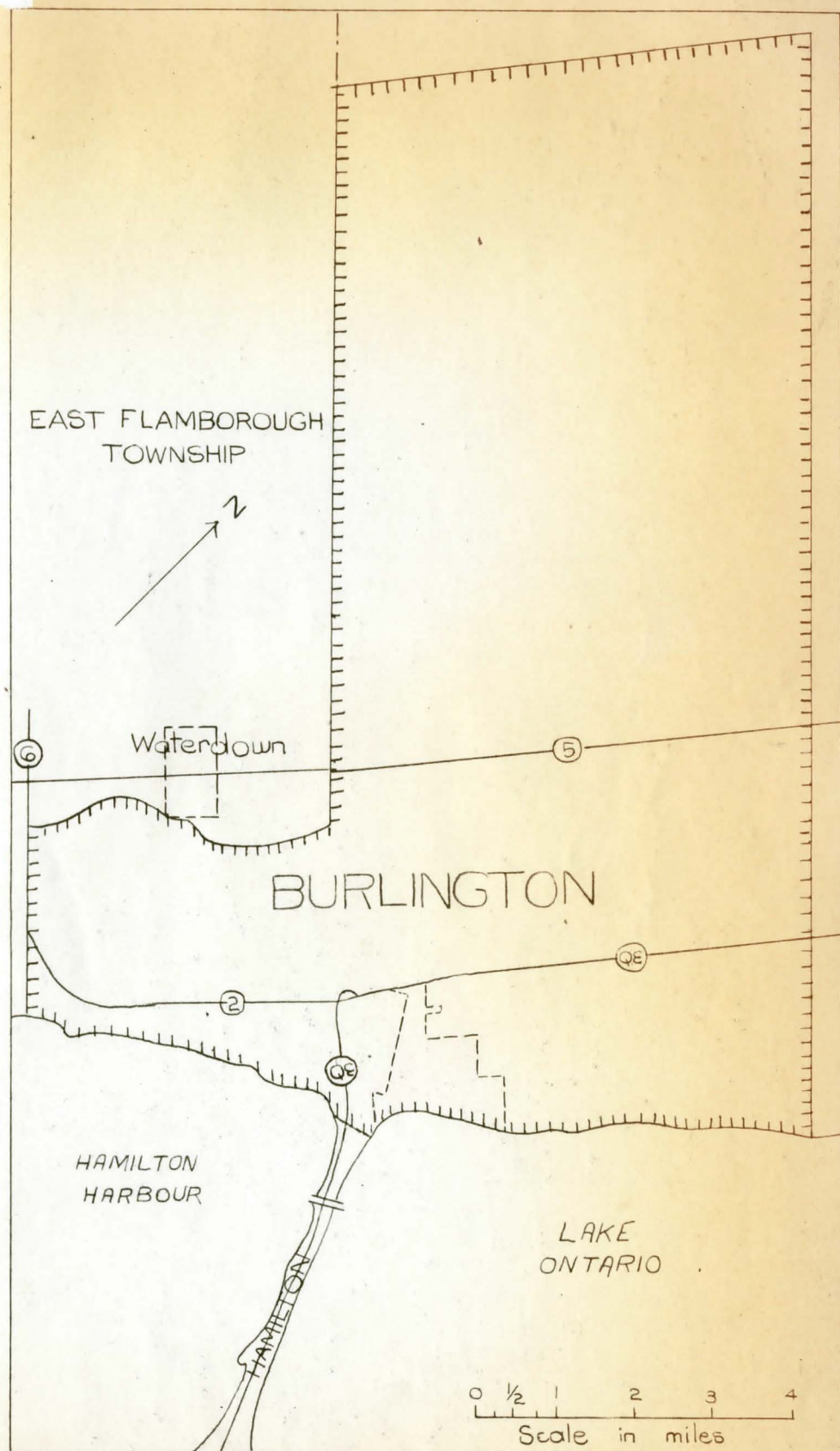


FIGURE 20

THE EXTENT OF BURLINGTON AFTER ANNEXATION

1957 BOUNDARY
 1958 BOUNDARY

In all these ways there is a definite relationship between Burlington, the node of the Region, and the umland. On January 1, 1958, however, the node and the umland will become one administrative unit. (See Figure 20.) On this date, both Lower Nelson, along with the rest of Nelson Township, and Aldershot will be annexed by Burlington, thus bringing the various segments of the Region into a closer union still.

With all these assertions in mind, let us turn our attention to a more careful study of each segment of the umland in order to see just why they are considered to be parts of the Burlington Geographical Region.

Lower Nelson

This is the most important segment of the umland. Situated in the southern one third of Nelson Township, it occupies an area of roughly thirty-three square miles and supports an estimated population of just over 10,500¹.

Lower Nelson was one of the earliest settled parts of the County of Halton and its historical development has been similar to that of Burlington. Early population growth was very gradual and economic activity centred about grain, fruit, vegetable and dairy farming. During the early part of the nineteenth century Port Nelson, like Burlington, was a major lake port. Large hardwood timber stands provided the basis for a thriving lumber industry in the middle part of the nineteenth century and several saw mills sprang up. As in the case of Burlington, industry was slow to develop in Lower Nelson. Early activity in this field was restricted to a few grist mills, lumber mills and small factories.

The twentieth century, however, with its great trend towards urbanization has brought startling changes to the Nelson area. Here, as elsewhere throughout the region, there has been rapid growth in residential and industrial

1. From personal communication with W. K. Sims, Nelson Township Clerk.

development. Lower Nelson for some time now, has beckoned the busy city executive and businessman to suburban living in rural surroundings.

From a residential standpoint, this southern one third of the township is an extremely desirable locality, and many new subdivisions have been opened up. One of the oldest and most attractive residential communities to be found in this area is the exclusive Roseland Survey of Port Nelson. Here large, beautiful homes with spacious grounds nestle amongst groves of tall stately trees, which stand intact as reminders of the lumbering days. Newer developments include the Queensway, "the soldiers' settlement", which lies just south of the Queen Elizabeth Way and west of the Guelph Road. This subdivision was promoted by the Department of Veterans Affairs in order to provide homes for World War Two veterans and their families. There are many older communities in the lower portion of the township, such as Appleby and Nelson.

Much of the present residential growth is taking place to the east and to the north. Roseland Heights, just east of Roseland, is one of the newer areas and already has taken its place as a select residential area. Shore Acres Heights, farther east, is rapidly expanding. One of the largest residential developments is that of Clarkdale with over 500 homes, a goodly number of the residents being Ford employees. Mountain Gardens, on upper Brant Street, north-east of the Queen Elizabeth Way, has room for 438 homes. Other new surveys include Queen's Court and King's Court and residential expansion is also taking place near Indian Point. It can be seen, therefore, that throughout Lower Nelson, there is a programme of rapid residential subdivision development which is typical of the Burlington Geographical Region.

In many respects Burlington and Nelson are very closely associated. While today, Nelson has its own fire protection, prior to 1954 this service was

provided by Burlington. Lower Nelson has no extensive commercial development whatsoever. There are several stores, located strategically near some of the major residential subdivisions (Grand Union Carrolls, Limited, recently built a large supermarket at New Street and the Guelph Road), but the area has no large shopping district. For extensive shopping purposes¹, therefore, Nelson is dependent almost entirely upon Burlington's commercial facilities.

This dependence upon Burlington is not restricted to the commercial field alone. Burlington's recreational and institutional facilities are widely used by Nelson residents. In the field of education while the elementary school needs of the area are taken care of by three public schools - Strathcona, Glenwood and Laurie Smith - the Burlington High School is the only secondary school presently available for Nelson students, though the Nelson High School is rapidly nearing completion.

There is a great deal of co-operation between Burlington and Nelson as is exhibited by the Burlington-Nelson Inter-Urban Water Board which supplies both areas with water. The recent controversies over annexation proposals illustrate all the more emphatically the closeness of the relationship which exists between the two communities. Both areas, while differing on the way in which annexation should take place², were, nevertheless, ready to acknowledge the need for some form of union between the two communities.

The various factors which have been responsible for the rapid expansion of industry in Burlington have also been responsible for the same trend in Lower Nelson. The availability of power, the abundance of labour, the proximity to markets and the excellent transportational facilities (see Appendix F-2), offered in this area have all provided a great stimulus to

1. This excludes shopping which might be done in Hamilton.
2. Nelson wanted to annex Burlington and vice versa.

industrial development. Already large tracts of land have been zoned off for industrial purposes¹, and Nelson has been seen by some as the focal point of a large industrial triangle. (See Appendix F-3.)

The energy and foresight of the Nelson Township Council is reflected in the positive way in which they have handled the growth problems of Lower Nelson. Under the enthusiastic direction of an industrial commission, many new and diversified industries have located in the Nelson area. The Duke Lawn Equipment Company, the L. H. Schwindt Company, the Owens Wood Products Display Company, and the W. Wiens Screw Machine Products Company, all found along the Queen Elizabeth Way west of the Freeman stop light are typical of the small diversified industries to be found in Lower Nelson. Other industries include Alchem Limited, (an important manufacturer of chemicals), Barton Tubes, Limited and the A. & A. Lumber Company, all located just north of Burlington off the Queen Elizabeth Way. There are several important industries along the Guelph Road in the vicinity of the C.N.R. line. These include Bonar & Bemis, Limited, (paper bag manufacturers), Munro Games, Limited, and the Svacina Shoe Company, which is in the process of being built. North of the Queen Elizabeth Way and east of Highway No. 25, several industries have just commenced operations or soon will do so. Here we find R. A. Nicholson, Limited, and the Butler Manufacturing Company (Canada), Limited which has just been operating since April of 1956. The A. S. Nicholson & Son Company, Limited, has purchased thirty-four acres of land adjacent to the Butler Company and here they plan to erect \$1,000,000 worth of buildings. Several other companies, such as the International Harvester Company (Canada), Limited and the Studebaker-Packard Corporation, hold large sections of land in Lower Nelson though building has not yet taken place.

There can be no doubt about the future success and rapid development

1. More than 3,200 acres have been zoned, in a belt six miles long, adjacent to the Queen Elizabeth Way, for industry.

of industry in the Nelson area. Already, attempts have been made to attract industries from foreign countries (see Appendix F-4) and Nelson officials are determined not to let any obstacle slow down their communities' progress.

Unfortunately, in Lower Nelson, as in the whole Burlington Geographical Region, and in many rural districts of Ontario for that matter, the high cost of living, taxes and increased urbanization are threatening to squeeze out the farmer. As a result, much valuable agricultural land is being subdivided. Land prices, as in the case of Burlington, are very high and the Nelson farmer is constantly under pressure to sell his holdings. There are still some fruit and dairy farms in the south-western portion of Lower Nelson, especially north and west of Walker's Line, and several excellent vine and fruit farms may be seen along the Queen Elizabeth Way. While market gardening and hot house farming are quite popular in and around Port Nelson, it is apparent that their days are numbered.

The exceptional growth of this segment of the unland stirs the imagination for, in the future, prospects point to one of the greatest industrial and residential expansions in Canada.

Aldershot

The Aldershot segment of the unland lies to the east of Burlington and is in some respects more tightly bound to Hamilton than to Burlington. This is especially true of the areas closest to the city limits. In view of the impending annexation, however, it is apparent that the interests of the overall Aldershot area are more closely associated with those of Burlington than, perhaps, one would suspect. As in the case of the whole region, here too, urbanization is bringing about startling changes in the residential, commercial and industrial patterns of the community; changes which are rapidly destroying the previously rural atmosphere of the area.



Two examples of umland industry.

(above) The J. Cooke Concrete Block Company, Limited, Aldershot.

(below) The Butler Manufacturing Company (Canada) Limited, on the Queen Elizabeth Way, just southwest of Walker's line.



Known as "the front" by residents in East Flamborough above the Escarpment, Aldershot has enjoyed a long and interesting history similar to that experienced by both Burlington and Nelson. Chevalier de LaSalle was the first white man to visit "the front", beaching his canoe on the north shore of the Hamilton Harbour, near present day LaSalle Park, in 1669. In 1873 David Fonger came to this country from Bavaria and took up residence on the north side of Highway No. 2, then the Plains Road, across from the present day St. Matthew's Anglican Church. Early settlers, like W. Applegarth, J. Brown and A. Ferguson, lost no time in turning Aldershot into a prosperous farm region. Mr. Brown proved to be a shrewd businessman, for in 1820 he built Brown's Wharf, where the LaSalle Dock now stands, and the Aldershot area quickly became one of the busiest shipping centres on the Great Lakes. Fruit and vegetables from the district, flour from the mills at Waterdown and even lumber from Guelph were loaded aboard the steamers which called at the wharf. Just after 1850 there was an influx of pioneers from overseas and farming continued with renewed vigor.

Since 1920 the Aldershot district has been rapidly growing into a densely populated suburban area¹. Once famed as the finest market gardening centre in the province, the extensive subdivision of the rich farm lands over the past twelve years has resulted in a severe decline in the amount of fruit and vegetables produced. The few remaining growers predict the complete extinction of the local market gardening industry within ten years.

Most of this farm land is being turned into modern residential subdivisions. Van Acres, Long Acres, Easterbrook and Harbour Heights Surveys are examples of this trend. Two of the newer and more exclusive surveys are Glen Acres, owned by J. Cooke and consisting of 277 lots (see Appendix F-5), and North Shore Heights. These two residential subdivisions take advantage of the

1. Aldershot has an estimated population of 8,000 (1956) and has a land area of 6,200 acres. (From personal communication with Mr. Sutherland, East Flamborough Township Assessor.)

beautiful, rolling, ravine-cut land bordering the Harbour front to provide picturesque sites for new homes. The homes in the newer subdivisions of Aldershot are, for the most part, low and rambling with extensive, well looked after grounds. Many large mansions are situated along the North Shore Boulevard overlooking the Harbour. Many homes along the Harbour front have had their value greatly increased through the building of expensive retaining walls and boat houses. "The front" for many years now has been referred to as one of the most attractive suburban districts in Southern Ontario, a reputation which, in view of the widespread modern residential development still going on, should long be held.

The rapid urbanization of the Aldershot district can be seen in another form, namely in the recent growth of commercial establishments along Highway No. 2. Stretching from just south of the Aldershot stop light (at the intersection of the LaSalle Road and Highway No. 2) to Campbell's Corners, numerous restaurants, service stations, hardware stores, automobile agencies and drug stores have sprung up in a linear pattern flanking both sides of the highway. All these commercial enterprises see the great benefits to be gained by locating on the highway, one of the busiest in Canada. From their highway sites they can not only supply the local residents with the necessities of life, but also, the highway traveller. Two large supermarkets have been built, one at either end of this commercial belt. The presence of numerous modern motels further reflects the importance of being situated on a main traffic artery and close to a large city. Motels like the Brent Wood and the Crestwood provide modern conveniences to tourist and commercial traveller alike. There are several fruit stands on either side of the highway, in the vicinity of Holy Rosary Church, which, during the summer months, sell large quantities of locally grown fruit and vegetables. In the winter months most of these stands open periodically to

sell apple cider, Christmas trees and hot house produce. This form of commercial activity, however, like agriculture itself is fast dying out in the area.

While the pull of Hamilton's commercial districts is very great in Aldershot, a great many of the local residents do avail themselves of the shopping facilities offered by Burlington¹.

Whereas residential development in Aldershot is located mainly between Highway No. 2 and the Harbour front, industrial development has concentrated mainly between the highway and the C.N.R. line. Industry here, as throughout the region, is highly diversified. One of the oldest is that of Unsworth and Son, Limited, located at Unsworth Drive and Highway No. 2. For over sixty years this firm has been producing some of Ontario's finest hot house lettuce and tomatoes.

The Iroquois Bar, mentioned so frequently in Chapter 1, is the site of two important industries. The Howard Concrete and Building Materials Company, Limited, and the J. Cooke Concrete Block Company, Limited (see Appendix F-6), Canada's largest single concrete block factory, have for many years now provided large quantities of ready mix concrete, cement blocks and building materials to the surrounding area; materials which have made the rapid urbanization of the Burlington Geographical Region possible.

Other industries have developed making use of the large amounts of clay and shale to be found in the district. The National Sewer Pipe Company had for many years (until 1939), a large sewer pipe factory at the head of Dominion Lane, beyond the C.N.R. line, where extensive beds of red "sewer pipe" clay provided the basis for a thriving industry. (See Appendix F-7.) The Natco Clay Products Company, since 1910, has been producing large quantities of structural tile from the Queenston shale which underlies the whole region.

The more recently established Aldershot industries include the

1. An improved Burlington shopping district, reflected in the new Plaza, is attracting more and more Aldershot customers.



A well kept vine and fruit farm along the Queen Elizabeth Way.



The Queensway Survey, Lower Nelson.
This picture illustrates the encroachment
of agricultural land by residential
subdivision, which is characteristic of
the whole Burlington Geographical Region.

the Van Wilson Company, Limited, the Allan Candy Company and the Green Cross Products Company, a manufacturer of insecticides, fungicides and herbicides.

One of the most interesting industries of Aldershot is the Aldershot Cold Storage. In 1935 Mr. L. Scott, built a cold storage plant at the Aldershot Depot. This plant has been a valuable asset to the community and today, fruit (mainly apples) from an area within a forty mile radius of the plant is brought in to be stored. A new "controlled atmosphere" storage process was introduced in 1955, making the Aldershot Cold Storage the first plant of its type in Ontario to employ such a process.

Growing pains are being felt in all phases of Aldershot life and many steps have been taken to ease the pressure. Water is being supplied to large sections of Aldershot by the Burlington-Nelson Inter-Urban Water Board. Two new public schools have been built in the past four years giving the area a total of four. The religious needs of the community are being met by four churches with a fifth to be completed in the near future. Various associations, such as the Aldershot Community Council, and the Aldershot Property Owners Association, have been organized, all of which are working for the common good of the Aldershot district.

Once a quiet farming community, Aldershot now finds itself in the midst of a region which is feeling the full effect of urbanization. This section of the Burlington Geographical Region, like the others, is in a state of transition, which has been caused by the rapid growth of population and by increased residential, commercial and industrial development.

SUMMARY

Both Lower Nelson and Aldershot may be considered as parts of the Burlington Geographical Region. In historical development, they have been very

closely associated with Burlington. From an economic standpoint, Burlington's commercial influence is felt in varying degrees of intensity by both of these segments of the umland. Through the provision of many cultural facilities, Burlington has forged a permanent link with both Lower Nelson and Aldershot. The changes which are taking place in Burlington, as a result of urbanization, are also taking place throughout the umland. The noticeable increase in umland population has been accompanied by the establishment of many new residential subdivisions, stores and industries.

It is apparent that in the future, two factors will contribute to the greater unification of the Burlington Geographical Region; these factors are annexation and urbanization. Through annexation, political unity will be brought to the region. Urbanization, which has been affecting the region for many years now, will continue to do so, driving the two segments of the umland into a closer relationship with not only one another, but also with Burlington, the node of the region.

CHAPTER VIII

THE UPPER NELSON TRANSITION AREA AND THE BEACH STRIP TRANSITION AREA

North and south of the Burlington Geographical Region lie two transition areas, or appendages, namely the Upper Nelson Transition Area¹ and the Beach Strip Transition Area². (See Figure 19.)

As their titles imply, both of these appendages are in a state of transition so far as their relationships with the Burlington Geographical Region are concerned. The Upper Nelson Transition Area, though presently lying outside of the Burlington Nodal Region, will undoubtedly be drawn into it when the whole of Nelson Township is annexed by Burlington, on January 1, 1958. The Beach Strip Transition Area, on the other hand, though presently lying within the administrative boundaries of Hamilton³, is, nevertheless, economically affiliated with Burlington. Unlike the Upper Nelson Transition Area, however, this appendage, in the future, will in all probability be drawn further away from the Burlington Geographical Region, as influence from the Hamilton Nodal Region becomes more pronounced in the Beach Strip area.

Let us now direct our attention to a brief study of these two appendages in order first to determine just what type of area Burlington will inherit upon the annexation of the Upper Nelson appendage, and second, to determine the future importance of the Beach Strip Transition Area to the Burlington Geographical Region.

THE UPPER NELSON TRANSITION AREA

Though this portion of Nelson Township occupies a total area of roughly forty square miles, it has an estimated population of only 1,800⁴.

1. The northern two-thirds of Nelson Township lying north of Highway No. 5.
2. The narrow sand strip, known as the Burlington Bar, which separates Hamilton Harbour and Lake Ontario.
3. On January 1, 1957 the entire Burlington Bar was annexed by Hamilton.
4. This 1956 estimate was obtained from personal communication with Mr. W. K. Sims, Nelson Township Clerk.

The landscape is typically rural in appearance and most of the inhabitants of the area make their livelihoods by farming. For the most part, the physical setting is favourable for agriculture. Moisture and temperature conditions are quite satisfactory but the whole of Upper Nelson is not uniformly productive. The better farms are located in the eastern half of the area. Here the terrain is generally even and the soils tend to be of the deep, productive sandy loam variety. The poorer farms, of the western half of the area, reflect the presence of the Niagara Escarpment which runs in a general northeast-southwest direction through this appendage, dividing it into two halves. In the western half, the terrain is rolling to hilly, erosion is more prevalent, and the soils (composed mainly of sand, clay and boulders) tend to be less productive because of their shallowness.

Mixed farming is the most common form of agricultural pursuit and the average farm is from 100 to 200 acres in size. The main crops include grains and hay, with some potatoes being grown in the northwestern corner of the township. The livestock raised in this area include beef and dairy cattle, poultry, sheep and pigs. There are many excellent dairy farms and some fruit and vine farming is also carried out. In the lee of the Escarpment, at Mount Nemo, several new orchards have been started within the past five years and since the time of planting, they have been progressing quite favourably.

There is very little urban development in this Upper Nelson Transition Area. The largest village is Kilbride with a population of about 150. Other small centres include Cedar Springs, Lowville and Zimmerman. These hamlets for the most part, are of little economic importance, having no real function other than that of providing limited commercial facilities for the local farmers. The more extensive shopping practices are carried out in the



A typical Upper Nelson farm.

larger urban centres, such as Hamilton, Burlington and Oakville.

Not all of these communities are dormant, however. Cedar Springs, a community nestled in the valley of the Bronte Creek just northwest of Mount Nemo, is a very important summer and winter recreational centre. During the summer months it serves as a rural retreat for many Hamilton and district residents. During the winter months it is the home of the Cedar Springs Ski Club.

While, at present, industry is almost non-existent in Upper Nelson, this has not always been so. In the latter part of the nineteenth century, there were many manufacturing enterprises in the area. These included numerous grist and saw mills, a furniture factory, two wagon factories, several farm implement factories and a woollen factory, to mention just a few. Many of these mills and factories used water power and were thus located in many cases, on the banks of the Bronte Creek. With the development of new industrial techniques, new sources of power and better transportational facilities, and with increased competition from more efficient city factories those in Upper Nelson were forced to close one by one. Today there are only two industries in Upper Nelson, namely the King Paving Company, Limited, which operates a large stone quarry at Mount Nemo, and the G. H. Leaver & Son Company, Limited, located in the northwestern corner of the township on the Guelph Road, a grower and canner of mushrooms.

An investigation of the Upper Nelson Transition Area reveals that it has little in common with the lower portion of the township, or with the Burlington Geographical Region for that matter. Urbanization has not yet become an influential force in the area and the rapid residential, commercial and industrial development of the Burlington Geographical Region has no counterpart in Upper Nelson.

The Beach Strip Transition Area

The Beach Strip Transition Area occupies a total area of 308.1 acres, and supports an estimated permanent population of about 3,500¹. It is an area which is characterized by poor housing, limited commercial development, and a lack of industry. It is an area where, over the past few years, Burlington's influence has been gradually waning, in the face of stronger influence from Hamilton.

While the political affiliation between Burlington and the Beach Strip Transition Area has come to an end², the commercial affiliation has not. Despite the strong commercial pulls of Hamilton's shopping districts, especially of the "Centre"³, many Beach residents still continue to avail themselves of the commercial facilities offered by the town. The Burlington Plaza is well patronized by Beach residents and it is evident that more additions of this type to Burlington's shopping district will further serve to strengthen the commercial affiliation between the two areas.

From the standpoint of recreation, the Beach Strip Transition Area has for many years been a popular summer playground for residents of both Hamilton and the Burlington Geographical Region alike. Over the past few years, however, the Beach Strip has been deteriorating into a blighted area. The pollution of Hamilton Harbour by heavy industry has made it necessary to prohibit swimming in that body of water, though it still serves as an important yachting basin. Recreational activity on the Lake Ontario side of the Burlington Bar has likewise been seriously limited, over the past few years, by a rapidly narrowing beach, by annual plagues of dead fish, by low water temperatures,

1. This 1956 estimate was obtained from personal communication with the City of Hamilton Assessment Department.
2. From 1909 up to the end of 1956, that portion of the Burlington Bar stretching from the junction of the Queen Elizabeth Way and Highway No. 20 south to Station Twenty-seven, was administratively part of Burlington.
3. The "Centre" is a large Hamilton shopping plaza located on the old Jockey Club grounds, Barton Street East, just west of Kenilworth Avenue.

and by the dirty and unattractive appearance of the landscape. Many of the buildings originally built to serve as summer cottages are now being lived in all year round. Add to these disadvantages those of heavy summer auto traffic over the Bar, the increased commercialization of recreational facilities, the presence of a railway line in close proximity to the beach, and the excessive crowding of cottages and it is plain to see why the Beach Strip Transition Area is declining as an important recreational area.

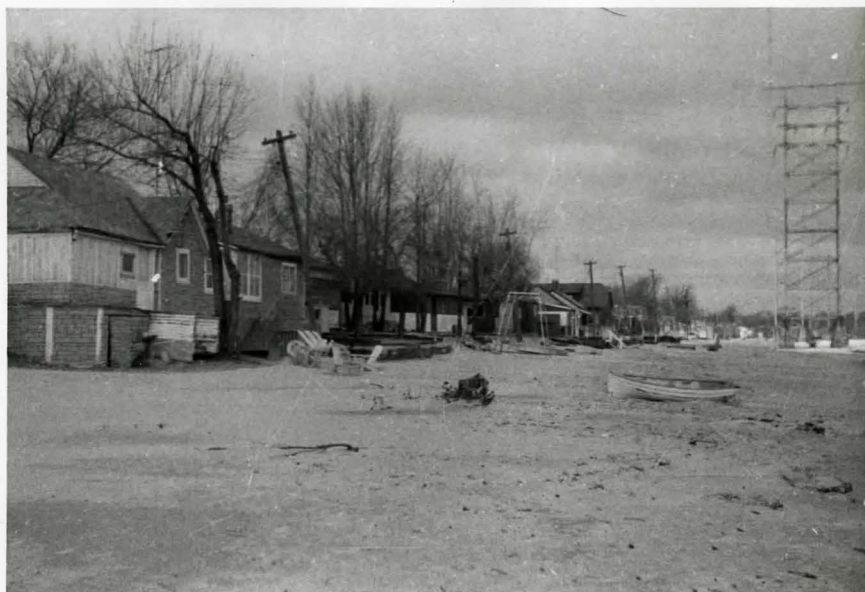
The future role of the Beach Strip Transition Area, with respect to recreation, is uncertain. If it is to regain its former prestige as an attractive summer playground, steps must be taken, where possible, to control the factors causing deterioration and to repair the damage which has already been done.

The role of the Burlington Bar as a transportation bridge linking the Toronto and Niagara Falls components of the Queen Elizabeth Way cannot be overlooked when predicting the future importance of the Beach Strip Transition Area to the Burlington Geographical Region. The Burlington Beach Skyway should have far reaching effects upon the Burlington Geographical Region and especially, upon the industrial development of the Region. Nelson Township officials see the Skyway as providing a great stimulus to the future industrial expansion of their area and this opinion is not held by township officials alone. (See Appendix F-2). It has been estimated that the completion of the Skyway will make it possible for trucks to carry steel from Hamilton plants to plants on the Appleby Line in twenty minutes. The Skyway will also reduce the amount of time that it takes for the Burlington commuter, who works in the eastern end of the city to travel to and from work.

Investigation of the Beach Strip Transition Area reveals that it is an area which is badly in need of planning. Generally speaking, its unattractive, crowded, depressed appearance has been produced by an unrestricted clash of



The Burlington Beach Skyway
under construction



A view of the depressed cottage
settlement along the Lake
Ontario side of the Burlington Bar.
Note the untidy nature of the beach.

residential, recreational, commercial and transportation interests. It is to be hoped, however, that in the future, under Hamilton's administration, the area will be rehabilitated and placed under the jurisdiction of an intelligent zoning policy.

SUMMARY

It was our purpose in this chapter to study the two appendages of the Burlington Geographical Region in order first, to determine just what type of area Burlington will inherit upon the annexation of the Upper Nelson Transition Area, and second, to determine the future importance of the Beach Strip Transition Area to the Burlington Geographical Region.

With respect to an evaluation of the Upper Nelson appendage as an area to be annexed, it can be seen that on January 1, 1958 Burlington will acquire a vast stretch of territory which, at present, has little in common with either the town itself or the rest of the region. Supporting a sparse population, with an economy based almost entirely upon agriculture and with little urban development, this Upper Nelson Transition Area stands in sharp contrast to the Burlington Geographical Region; a region where urbanization, with its characteristic residential, commercial and industrial development, is so pronounced.

Though annexation of this area will undoubtedly create some major problems for Burlington, it is felt by town officials that with careful planning and constructive leadership, Upper Nelson can be successfully drawn into the Burlington community.

The Beach Strip Transition Area stands as a zone of uncertainty so far as its future importance to the Burlington Geographical Region is concerned.

From a commercial standpoint, residents of the Beach Strip should

continue, in the future, to use Burlington's commercial facilities provided these facilities are able to successfully compete with those of Hamilton.

It is apparent that the Burlington Bar can be of greater recreational importance to the Burlington Geographical Region than it is at present provided action is taken to prevent the further deterioration of the Bar's recreational assets.

In the field of transportation, the future importance of the Beach Strip Transition Area to the Burlington Geographical Region is more certain. The improvements in local transportational facilities, resulting from the completion of the Burlington Beach Skyway should give further impetus to the residential and industrial development of the region.

CHAPTER IX

SUMMARY AND CONCLUSION

Beneath Burlington's serene exterior a struggle is being waged between two opposing forces, each of which is finding it extremely difficult to tolerate the existence of the other. These are the forces of ruralism and urbanism. This struggle is not unique to Burlington. It exists throughout Southern Ontario, but it has become most apparent in the Burlington area and especially within the past few decades. As one walks along the streets of Burlington, one is aware of two distinctive atmospheres. Despite the rapid growth of residential subdivisions and the creation of new commercial and industrial sites, the presence of neat, well kept, attractive irrigated fields is still a dominant characteristic of the landscape. Tenaciously, agricultural interests in Burlington cling to the last remnants of what was once a wealthy farm empire. Relentlessly, urban interests in greater and greater numbers are pushing into the area in an attempt to create a new empire: an empire dominated by commerce and industry.

In the growth and development of Burlington, both rural and urban interests have played an important part. The agricultural regime of the past was responsible for a slow but steady growth. Under its influence, Burlington enjoyed a prosperity based first upon grain then briefly timber, followed by dairy products, fruit and vegetables. In more recent times the introduction of modern shopping centres, beautiful residential subdivisions and clean, attractive factories, supplied with all the modern conveniences and services, has given Burlington the reputation of being one of the most rapidly growing and progressive communities in the whole of Southern Ontario.

The rural atmosphere is still very much in evidence in Burlington today, but for how long is a matter of controversy. Certainly Burlington's location and physical setting, which were largely responsible for the great success

of agricultural development in the past, are today offering comparable benefits to urbanism. Located in the most densely populated region of Canada, Burlington benefits from excellent transportation facilities, large nearby markets, abundant power and a large labour force - qualities attractive to industrial and commercial developments alike.

The planners of Burlington are very much aware of how readily the town and its surroundings lend themselves to urban development, but they are quick to realize that a great part of Burlington's appeal today lies precisely in its peaceful semi-rural atmosphere. Many people have moved to Burlington in order to escape the traffic, noise and congestion of city life. In any plans for the future, therefore, the sanctity of the residential function, so long dominant in the town's life, must be upheld.

We have seen in our study of Burlington that everywhere its facilities have been geared to meet the demands of a rapidly increasing population. Sewage and water mains have been extended into new subdivisions at a surprising rate. New schools and churches have been built, while existing facilities in these fields have been enlarged, in order to cope with the growing educational and spiritual needs of the community. New stores, supermarkets and shopping centres have sprung up, extending the limits of the old commercial districts in an attempt to meet the increased consumer demands of the Burlington area.

We have seen how in the past fifteen years Burlington's population has increased threefold. Many residents are young married people who regard Burlington as a healthy, attractive place in which to raise a family. They are proud of their community and have a strong desire to be a part of its future growth and development. For the most part, the residents of Burlington enjoy a high standard of living. They live in comfortable homes, drive automobiles and enjoy most of the conveniences of modern living. They support their local

s.ervice clubs and organizations and generally carry out the duties of good citizens.

We have seen how both Burlington and Hamilton have benefited, for many years now, from a close relationship. Hamilton families have been flocking to Burlington to take up permanent residence in a pleasant suburban setting. Burlington citizens avail themselves of the commercial, social and recreational facilities offered by Hamilton. In certain aspects of the Hamilton-Burlington relationship, the association between the two communities has been changing. While it is apparent that in many respects Burlington is becoming increasingly independent of the city, it is certain that there will always be a mutually desired relationship between the two.

We have seen that Burlington lies in the midst of an important region; a region over which the town exerts some form of social, economic and cultural influence and which faces similar problems of change and transition. Throughout the unland, agricultural land is falling before the bulldozer of residential, industrial and commercial development. The price of land is increasing as more and more people move into the area. Many of the existing facilities are inadequate but township officials in both Nelson and East Flamborough are not sitting idly by. Under the direction of the Regional Planning Board, steps are being taken to meet the needs of the new urban developments.

We have also seen how the two transition areas are related to the Burlington Geographical Region. It is evident that the Upper Nelson Transition Area, because of its impending annexation by Burlington, will become more closely associated with the region in the future. It is equally evident, on the other hand, that the Beach Strip Transition Area will be drawn more closely into Hamilton's sphere of influence in the future. Despite this, however, the Beach Strip should continue to be of importance to the Burlington Geographical Region from the standpoint of commerce, recreation and transportation.

What does the future hold for the town of Burlington? If the growth and development of the last five years continues - and there is every reason to believe so - then the next fifteen years will see changes of ever increasing magnitude. Many factors promise to influence the destiny and future growth of Burlington. The Burlington Beach Skyway and the extension of the Queen Elizabeth Way should make Burlington's role as a transportation hub even more significant. Any benefits brought to Hamilton by the St. Lawrence Seaway will, in all probability, be reflected in the Burlington area. Already through the annexation of Nelson Township and portions of East Flamborough Township, which becomes effective on January 1, 1958, Burlington has shown to everyone that she is not willing to sit back and let the future take care of itself. It took great courage on the part of Burlington officials to propose the annexation of such a large tract of land, especially in view of the relatively sparse population which certain portions of the tract support. This proposal, and its subsequent acceptance by the Ontario Municipal Board, reflects a basic desire to unify and to organize the area of annexation in order that its individuality and autonomy may be preserved against pressure from outside influences.

With proper planning and intelligent civic leadership, Burlington's future can be extremely bright and prosperous. Perhaps Burlington, like Welwyn, Crawley and Stevenage, located on the outskirts of London, England, will eventually become a garden city characterized by attractive suburban homes, by modern commercial facilities, and by industrial estates containing clean, compact, light-industrial establishments. In view of the existing pattern of Burlington's residential, commercial and industrial development, as they have been regulated by zoning, it is conceivable that a garden city might evolve naturally from present day Burlington. Whether such a development will take place or not is

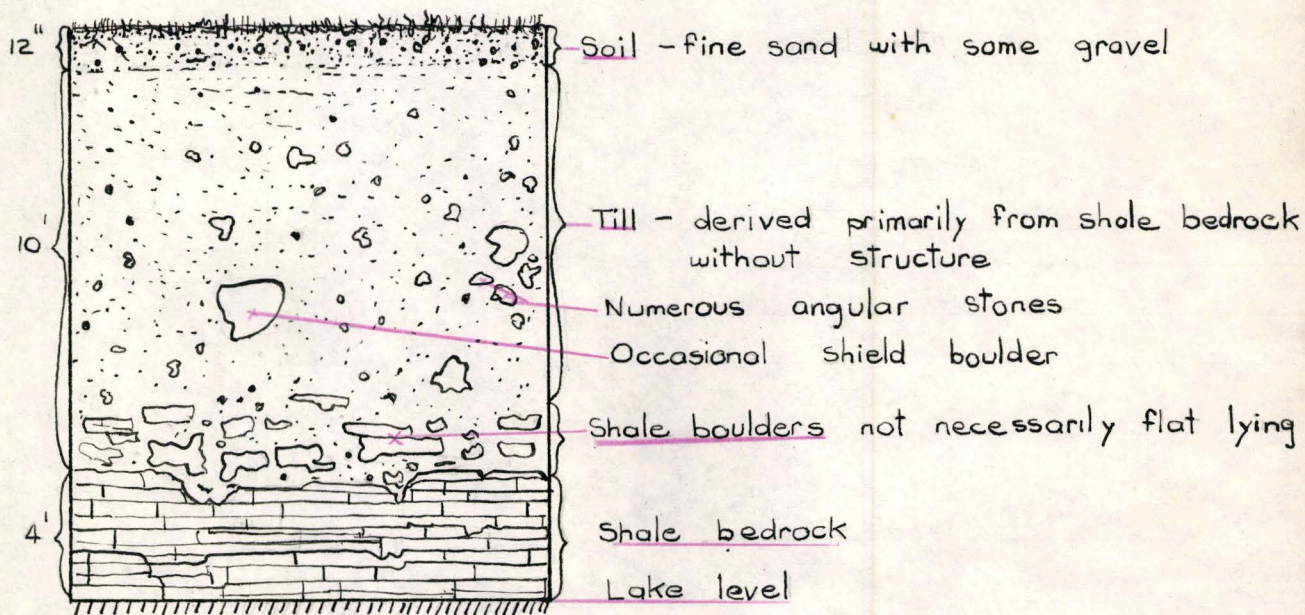
a matter of speculation. It is apparent, however, that the years ahead will be years of decision for Burlington; years which will see the appearance of a city and the disappearance of a town.

APPENDIX A.

1. Some people believe that the Burlington area was first influenced by the water of Lake Warren. Most geologists and physical geographers tend to discredit this belief and the writer of this thesis found no evidence, through investigations in the field, to substantiate the claim. Iroquois water was probably the first to cover the area in question.

2. The structure and vertical profile of these shorecliffs can be readily observed along the Burlington shoreline of Lake Ontario. The following observations were made of a shorecliff at the foot of Burlington Court.

VERTICAL PROFILE OF A SHORECLIFF



APPENDIX A.

3. In the vicinity of La Salle Park, there are wave cut benches at several levels indicating stages in the shrinkage of Lake Iroquois. These terraces parallel the Hamilton Harbour shoreline and are broken by the occasional stream valley. The terraces consist of fine sand overlying medium grained sand. Some water-rounded pebbles may also be observed in these terraces.

Just southwest of the Brant Museum, stands a beautiful wave cut terrace. It is roughly fifteen feet in height and represents the last level reached by Lake Iroquois before the level of Lake Ontario was reached.

As one approaches the Iroquois gravel ridge north of the Queen Elizabeth Way in the vicinity of Highway No. 25, the terrain is marked by numerous small swells, some of which are doubtless old Iroquois beach lines.

4. It is impossible to draw an accurate picture of Burlington's climate since there is no weather station in the town. In order to present as true a picture as possible, two sources of information have been used. First, a report on The Climate of Hamilton, Ontario, written by H. R. Thompson of McMaster University, in November of 1956, and second, a report on the Climate of Southern Ontario written in 1938 by D. F. Putnam for the publication Scientific Agriculture.

In no way are the statistics found in these reports binding to Burlington. Both Lake Ontario and Cootes Paradise have a pronounced effect upon local weather. These two bodies of water act as important climatic controls, often causing differences in weather conditions between two stations found relatively close to each other. (See H. R. Thompson, The Climate of Hamilton, Ontario, p. 4, Hamilton, 1956.

·APPENDIX A·

5. No concise, detailed study of the soils in the Burlington area had been made at the time of writing of this thesis. All records and maps are old and sketchy. Mr. L. Laking, a botanist at McMaster University and a staff member of the Royal Botanical Gardens, was able to give the author considerable information concerning both the soils and the original vegetation of the Burlington area.

APPENDIX B.

1. The following extract was taken from a publication, The Garden of Canada: Burlington, Oakville and District, compiled by M. Craig in 1902, page 39.

"In 1792 the families Ghent and Davis, being loyal to the King left their rich plantations, of North Carolina, wealth and position, and came to the mouth of the Genesee River (where Rochester now stands.) Arriving at Rochester during the fall they remained there till next spring. Governor Simcoe on learning the circumstances, sent a gunboat in which they came to Fort Niagara (now Niagara-on-the-Lake.) They remained there till the following spring when they settled on Crown Lands in the township of Saltfleet (where Mount Albion now is.) They remained there till 1804 when Thomas Ghent and Eshel Davis moved to Halton County and settled on Brants Block. They had lived in Saltfleet long enough to raise apples from seed. The young trees they dug up, brought them in a canoe across the bay, carried them through the forest and cleared the land on the new homestead where they were planted. The original homestead was in the Freeman region."

This extract is quoted in order to emphasize the great distance which the early Burlington settlers had to travel in order to reach their new homes, the hardships they faced, and the sacrifices they made. This extract also points out the early start which agriculture made in the Burlington area. Many of these early settlers started apple orchards leaving a legacy for future generations.

2. "Some of the boats of this era were considerably faster than

APPENDIX B

others and as a result, various skippers did everything in their power to capture the passengers and freight. They would all start from various wharves in Hamilton at the same time and make for the Burlington Canal. Whichever boat got there first captured most of the waiting tourists. To effect this all sorts of tricks were resorted to, such as fastening down the safety valves, pouring oil on the wood fuel, etc. On one occasion, one of the boats left Hamilton with insufficient fuel and lest Burlington should be reached first by the opposition boat, into the furnace went chairs, tables and benches; but all to no purpose, as by the time she reached Burlington the other boat was down eastward."

This brief account, depicting the exciting and keen steamship competition of the 1870's between Hamilton and Burlington, was taken from a Souvenir Booklet of Burlington compiled in commemoration of the Diamond Jubilee of Confederation in 1927 by several Burlington residents and published by the Burlington Gazette.

3. A typical example of a large "plantation" farm was "Shady Cottage" owned by Mr. G. Fisher, a name quite familiar to Burlington residents even today. At the turn of the twentieth century he had a 200 acre farm, all of which was under cultivation. He had 70 acres in orchard, the balance being devoted to ordinary mixed farming. The barns were large and well finished throughout, being used for the sorting and packing of farm produce. They had stables for 7 teams and 60 head of cattle, and cellar room for 5,000 bushels of roots. In the orchards were 16,000 fruit trees of all kinds: apple, pear, plum, cherry, peach, apricot, etc. and 30,000 currant and gooseberry bushes. The apples and pears were mostly exported and the balance of the crop was widely distributed in home markets.

APPENDIX B

4. To emphasize the amount of agricultural produce shipped by the C.N.R. from the Burlington district in 1922, the following facts and figures were taken from a copy of the Hamilton Spectator, December 7, 1922:

On one day in August the Niagara Co-operative Marketing Organization of Burlington shipped from the town six carloads of produce, including 1,200 boxes of pears, 500 hampers of pears, 2,000 crates of melons, 2,000 baskets of tomatoes, 800 baskets of plums, 150 baskets of egg plants, 100 baskets of peppers, 100 dozen of celery and 1,000 dozen of corn-on-the-cob. This was only produce shipped by freight trains. Much went by railway express and by motor truck also.

In the period from August 1922 to November, 1922, 7,000 boxes of Bartlett pears, 10,000 boxes of Keifer pears and 2,000 other varieties of pears, plus 15,000 barrels of apples exported, mostly to Britain.

Fruit was also shipped to Toronto, Montreal, Ottawa, Brockville, Guelph, and Detroit to the amount of over 1,000 tons.

During the week of August 21, 1922, 35 freight cars, loaded with fruit and vegetables, and 25 similarly laden express cars left the Burlington station at Freeman.

5. This 765 acres can be further broken down into the following subdivisions: 85 acres of strawberries, 25 of raspberries, 65 of melons, 75 of plums, 140 of pears, 70 of tomatoes, and 30 of peppers and egg plants. There were also 225 acres of apple trees and 50 acres of cherries.

Not all of the Burlington and district farmers belonged to this co-operative organization, so these figures are not complete.

APPENDIX C

1. The classification used is based on general observations and is, therefore, subjective. It is not a classification of residential building types but of home types. In classifying the homes of Burlington, each home was studied with respect to: (a) the building itself - nature of structure, size, materials used, state of repair, etc., (b) landscaping - presence or absence of lawns, gardens, fences, hedges, extra buildings, swimming pools, etc.; and (c) setting - the location of the homes with respect to better or inferior residential types.

This classification consists of four major types: A, B, C and D or first, second, third and fourth class. Each of the first three major divisions can be further subdivided into a higher or a lower category.

Type A¹

This type includes all the grand mansions of the town. The main building is very large, often having three or more floors. Many of the old buildings of the town which have been modernized and renovated are included in this type. Brick and stone are the building materials most commonly used. Often slate roofs, fancy dormers and roof turrets are to be found. In most cases these homes possess a double garage. Garden sheds and utility buildings are also characteristic. Most homes employ domestic help in the form of full or part-time servants and gardeners. The grounds tend to be exceptionally attractive, with large lawns often bordered by carefully tended hedges or fences, gardens, shrubbery and trees. Outdoor swimming pools, patios and barbecues are common to this home type. The type is located exclusively along the lake front, standing well back from Water Street. Homes of this type represent what might be called suburban estates.

APPENDIX C

Type A²

This type of home in some respects is very similar to A¹, having many of the same characteristics as are found in the A¹ category. They tend to be smaller than A¹ types and in most cases, are of more recent construction; in most cases they have only two stories. Wood, brick, stone, used either singly or in combination, are the building materials. The main building of this type tends to be less "imposing" than that of the A¹ type. The more elaborate ranch style homes, with double garage, large picture windows and a general expensive appearance are characteristic of this type. In all cases these homes are very well looked after. The grounds, while not usually as extensive as those to be found in type A¹, are nevertheless neat and attractive. These homes do not have, in most cases, domestic help. They lack utility buildings and swimming pools. Their settings tend to be attractive, often, the edge of a ravine or the end of a modern cul-de-sac.

Type B¹

Homes of this type lack the elaborate features of the A class homes. The buildings have a certain similarity of construction and appearance. They are typically square and two storied, and of brick construction or else they are low and rambling in the ranch style. Wood, brick and limited amounts of stone are used in the building process. In most cases they have only one garage. The grounds are neat and tidy, though the lawns tend to be small, but well looked after. Low hedges and small fences are often used to separate these homes. In most cases, shrubbery has been planted, but rarely are there large flower beds. These homes generally speaking, are found in the newer subdivisions. They are found on smaller lots and relatively close together.

Type B²

This is a poorer type of the general B category. Differentiation

APPENDIX C

between B¹ and B² is based mainly on the type of building and nature of construction. The homes tend to be of recent construction. They are most commonly one storied and either of brick or frame construction. In most cases the homes of this type lack a garage. They are characterized by cheap construction. The more expensive building stones are conspicuous by their absence and often old bricks are used. Perhaps, however, their most noticeable characteristic is the drab, monotonous similarity of design which they show. In some sections of the town, one can drive along a street and see six houses of this type, which are similar in every detail of exterior appearance. Homes of this type, generally speaking, have little in the way of lawns or landscaping. They are found in the cheaper sections of the newer subdivisions and in some of the older sections of town.

Type C¹

This type includes the older brick and stucco homes of Burlington. These homes are similar to one another in design and often have more than two stories. While stucco and brick are the most common building materials used, some frame homes, in a good state of repair, are also included. Homes of this type have limited grounds and often, no garage. They are located close together and primarily in the older residential districts of the town.

Type C²

This type includes the homes of the C category which for many reasons are of inferior quality. The homes are, in most cases, of shingle or frame construction. They generally lack a permanent foundation and are in need of general repairs and painting. They have little or no lawn; where present, the latter is often heavily weeded and ill kept. Homes of this type reflect a definite lack of interest on the part of the owners. These homes lacking a permanent foundation, often have a slight tilt. They are found in the poorer, older sections of Burlington, close to industrial and

APPENDIX C.

commercial establishments.

Type D

Homes of this type, generally speaking, are old and delapidated. They vary in size, in shape, and in material. Many are small one storied buildings, sitting on a lot just big enough to accommodate the structure itself. Many are covered with corrugated iron sidings, asphalt or shingles, while some are old frame homes which are badly in need of painting and repair. These homes are unattractive and provide merely a shelter for the inhabitants. Often there is a close correlation between the appearance of the grounds, if any, and that of the house itself. Tall weeds and grass, gardens which have "gone wild" are all characteristic of this type. There are relatively few homes of this type in the town and they are found mainly along the older streets.

In some cases, though very rarely, it was necessary to place a home in a higher or lower category because of some feature which increased or lowered, as the case may be, the general desirability of the property as a living site.

2. In order to determine just where the Burlington trade area lay, a representative cross-section of the town's merchants were interviewed. They were asked to define their own specific trade areas. A total of fifty merchants and businessmen was interviewed. It was possible, when the results were compiled, to define three zones of commercial influence. They are shown in Figure 13.

It should be pointed out that these various zones are, in many respects, hypothetical. The difficulty in determining the boundaries of the outer zone has already been acknowledged. It is believed, however, that the boundaries of the other two zones are relatively accurate.

APPENDIX C

In many cases, the merchants were not too specific in the percentage breakdown of their trade and consequently some of the results were too general to be used in determining the zones of commercial activity.

3. Information concerning the town's fourteen industries was gained through personal interviews with representatives of each industry. Questions concerning the history, products, raw materials, means of distribution, labour, power and markets were asked, in each case, in order to determine the general characteristics of each industry.

Percentages given, with respect to distribution of goods, refer to distribution according to volume.

APPENDIX D.

1. The municipal filtration plant is one of the most modern in Canada. It is located in Nelson Township on the Lakeshore Highway just east of Brookfield Avenue. Water from Lake Ontario flows by gravity into the raw water well, partly through the original sixteen inch pipe which was first installed in 1909. It is pumped from here into mixing chambers, where aluminium sulphate is mixed with it. This is not added except where there is great turbidity. From the mixing chambers, the water flows through the sedimentation basins. It takes three hours for a drop of water to flow from the mixing chambers to the filters. During that journey, alum settles to the bottom of the chamber, taking a large percentage of foreign matter with it. The water passes through the coal filters, is chlorinated and is then pumped into the clean water wells. The water is pumped from the clean water wells out into the municipalities' water system.

Most of the water is stored in a 1,250,000 gallon reservoir located on Brant Street north of the Queen Elizabeth Way. There is also a 200,000 gallon "stand-pipe" on the Waterdown Road in East Flamborough, where water is held after being pumped through a booster pumping station in Long Acres.

APPENDIX E.

1. In order to determine the nature and the extent of the relationship between Hamilton and Burlington, a generalized sample survey of the town was made. A total of 120 homeowners, fifteen from each of Burlington's eight wards, were interviewed during the course of the survey and each was asked to answer a series of questions. Special care was taken to ensure that the survey was truly representative and that every type of home and environmental condition present in the town was touched upon. The Hamilton-Burlington relationship questionnaire consisted of the following questions:

1. Do you have a car in the family? If so, how many?
2. How many members of this household work in Hamilton?
3. How many work in Burlington? How many in the region?
4. How many work in places other than Hamilton and Burlington?
5. How many times a week, a month or a year do members of this household go to Hamilton to shop?
6. What is the main reason for not going more often?
7. Can you get most of the household items that you need from Burlington stores? Do you find Burlington's shopping facilities adequate?
8. Do you purchase many items in Hamilton that you could purchase in Burlington?
9. When you go to Hamilton to shop, what type of stores do you patronize most often?
10. Do you shop more in Burlington than in Hamilton?
11. Do you take a. The "Hamilton Spectator"?
b. Hamilton bread?
c. Hamilton milk?
12. Do you support Hamilton places of entertainment, clubs, social organizations and sporting teams? Do any members of this household attend a Hamilton school or church?
13. Do you take a newspaper from any other centre besides Hamilton, excluding the "Burlington Gazette"?
14. Do you have strong social or shopping ties with any city or community other than Hamilton and Burlington?

APPENDIX E.

1. 15. How long have you lived in Burlington?
16. What were your main reasons for moving to the town?

During each interview special note was made of the home and its surroundings and any aspects of the household environment which might influence the answers of the person being interviewed. In most cases a great deal more information, on the subject in question, was gained than was actually desired.

It should be emphasized most emphatically that this survey was highly general in nature. The limited amount of time at the disposal of the interviewer made amore intensive investigation of the relationship impossible, and, therefore, the results obtained through the survey are by no means conclusive.

2. With respect to question number five, concerning the frequency of shopping trips to Hamilton, the following results were obtained:

Three said three times a week, six said twice a week, and eleven said once a week. In the first two cases, the people interviewed were quick to point out that social visits, in most cases, were combined with shopping trips.

Other answers given in reply to this question were:

Once every two weeks, once or twice a month (by far the greatest number of people interviewed replied in this way); once every four months; twice a year; seldom; at Christmas and Easter; and not at all (only two replied in this manner).

It should be mentioned that while this survey showed that personal trips to Hamilton for shopping purposes are infrequent, many of the people interviewed, acknowledged the possession of a charge account with one or more of the larger Hamilton stores which deliver in the Burlington area.

Many reasons were given to explain the infrequency of personal shopping trips to Hamilton. Besides the reason given in the above paragraph, children, lack of transportation facilities, Hamilton parking problems, high bus fares,

APPENDIX E.

2. lack of familiarity with Hamilton's shopping districts and the attractiveness of Burlington's shopping district were amongst the reasons most frequently cited for not going to Hamilton more often to shop.

3. In answer to questions two, three and four of the questionnaire, pertaining to place of employment, the following facts were obtained:

63 persons stated that they worked in Hamilton
45 persons stated that they worked in Burlington and the immediate region
10 claimed employment in other centres, namely Oakville, Toronto and Bronte. One admitted to working in Western Canada.
14 listed themselves as retired.

4. The results of the industrial survey carried out in the town show the following percentages of Hamiltonians employed by town industry. These figures are only rough estimates and were gained through personal interviews with representatives of each industry. The labour force referred to is the full time labour force of the town.

<u>Industry</u>	<u>Percentage of Hamiltonians Employed</u>
1. Jones Tool & Machine Company	0
2. Canadian Cannery Limited	10
3. A. S. Nicholson & Son, Limited	15
4. Halliday Company Limited	40
5. Susan Shoes Limited	75
6. Francis Shaw (Canada) Limited	70
7. Dominion Power Press Equipment Limited	45
8. Frank Tool & Die Company	25
9. Burlington Brick Company, Limited	20
10. Tip Top Cannery, Limited	40
11. Hercules Powder Company (Canada), Limited	10
12. Niagara Brand Spray Company, Limited	30
13. Glover Basket Company, Limited	25
14. Standard Cap & Seal (Canada) Limited	70

APPENDIX F.

1. The node, Burlington, along with the umland, consisting of the lower one third of Nelson Township, and Aldershot, constitute the general Burlington Geographical Region. Due to the limited amount of time at the disposal of the writer, it was impossible to establish definite regional boundaries based on intensive investigation. As pointed out in Chapter 1, the region is defined mainly in terms of economic geography. While other criteria were also taken into consideration, this criterion was the most influential in determining the regional boundaries.

It is not meant to imply that Burlington's influence is the only one present in the area discussed. Nothing could be further from the truth. Hamilton's influence is very strong over the whole region and in some sections is even stronger than that exercised by Burlington.

2. Dr. Faludi, a consultant in the Burlington-Nelson annexation discussions, of November 1956, held in the Laurie Smith Public School, Nelson Township, stressed the importance of two factors in the future industrial growth of the area:

- (1) The Burlington Beach Skyway.
- (2) The extension of the Queen Elizabeth Way into Hamilton.

3. Dr. Faludi referred to an industrial triangle developing, bordered by the C.N.R. line to Milton, by the Bronte Creek and by the main C.N.R. east-west line. Dr. Faludi said that, "this will become the focus of future industrial development and 80% of it lies in Nelson Township".

4. In 1954 two members of the Nelson Township Council, Mr. Adkins and Mr. Chadwick, completed a 20,000 mile trip to Europe and the United States where many foreign companies were advised of the possibilities which Nelson

APPENDIX F.

4. offers as a site for the location of plants.

5. The new subdivision, Glen Acres, owned by J. Cooke of Aldershot, consists of eighty-six acres of beautiful, rolling land, once the site of some of the finest melon, tomato and pepper crops in Ontario. The sloping site offers a view of the Hamilton waterfront and the Harbour itself. Roads in the subdivision will be paved and asphalt drainage ditches will be installed making this one of the best equipped residential surveys in Canada.

6. One of Canada's largest sandpiles, at the Aldershot concrete plant of J. Cooke, Limited, contains enough sand to build forty house foundations a day for the next eighteen months. The pile, a very noticeable landscape feature, feeds Canada's largest single concrete block factory and is composed of sand from Cooke's seven full and part-time pits in Aldershot, Milton, Carlisle and West Flamborough. Sand from these sources is blended to satisfy the standards required for the manufacture of concrete. Local sand from the Aldershot pits is not in itself ideal for blocks.

7. In 1928 the Dominion Sewer Pipe Company at Aldershot was taken over by the National Sewer Pipe Company, who continued operations at their Aldershot site until 1939. In that year they closed their factory at Aldershot and moved to Hamilton. The closing of the Aldershot plant was merely one step in a general consolidation of the company's holdings. Several other plants owned by the company were also closed. The Aldershot plant was located on about 900 acres of the finest red "sewer pipe" clay to be found in Canada. Today about 700 acres of the clay are left and under present mining conditions, the beds should last for twenty-five years.

BIBLIOGRAPHY

Chapman L.J., and Putnam D.F., The Physiography of Southern Ontario, Toronto, 1951.

Halliday W. E. D., A Forest Classification for Canada, Ottawa, 1937.

James P.E., American Geography: Inventory and Prospect, Syracuse, 1954.

Putnam D.F., Canadian Regions, Toronto, 1952.

Putnam D.F., The Climate of Southern Ontario: (Scientific Agriculture), Ottawa, 1938.

Spencer J. W., History of the Great Lake, New York, 1895.

Taylor T. G., Urban Geography, London, 1949.

Thompson H.R., The Climate of Hamilton, Ontario, Hamilton 1956.

Atlas of the County of Halton, (Walker and Miles Co. Ltd.), Toronto, 1877.

Business Year Book, 1945 to 1957, (The Financial Post), Montreal and Toronto, 1945 to 1957.

Nelson Township, Ontario, Canada, a brochure published for The Township of Nelson, 1956.

Ninth Census of Canada, 1951, Ottawa, 1953.

Souvenir Booklet of Burlington the Beautiful: Diamond Jubilee of Confederation, 1867 - 1927, (Burlington Gazette), 1927.

The Garden of Canada: Burlington, Oakville and District, compiled by M. Craig and published in 1902.

The Hamilton Spectator 1928 to 1957, Hamilton, 1928 to 1957.

The Town of Burlington, Ontario, Canada published about 1943 for the Town of Burlington.

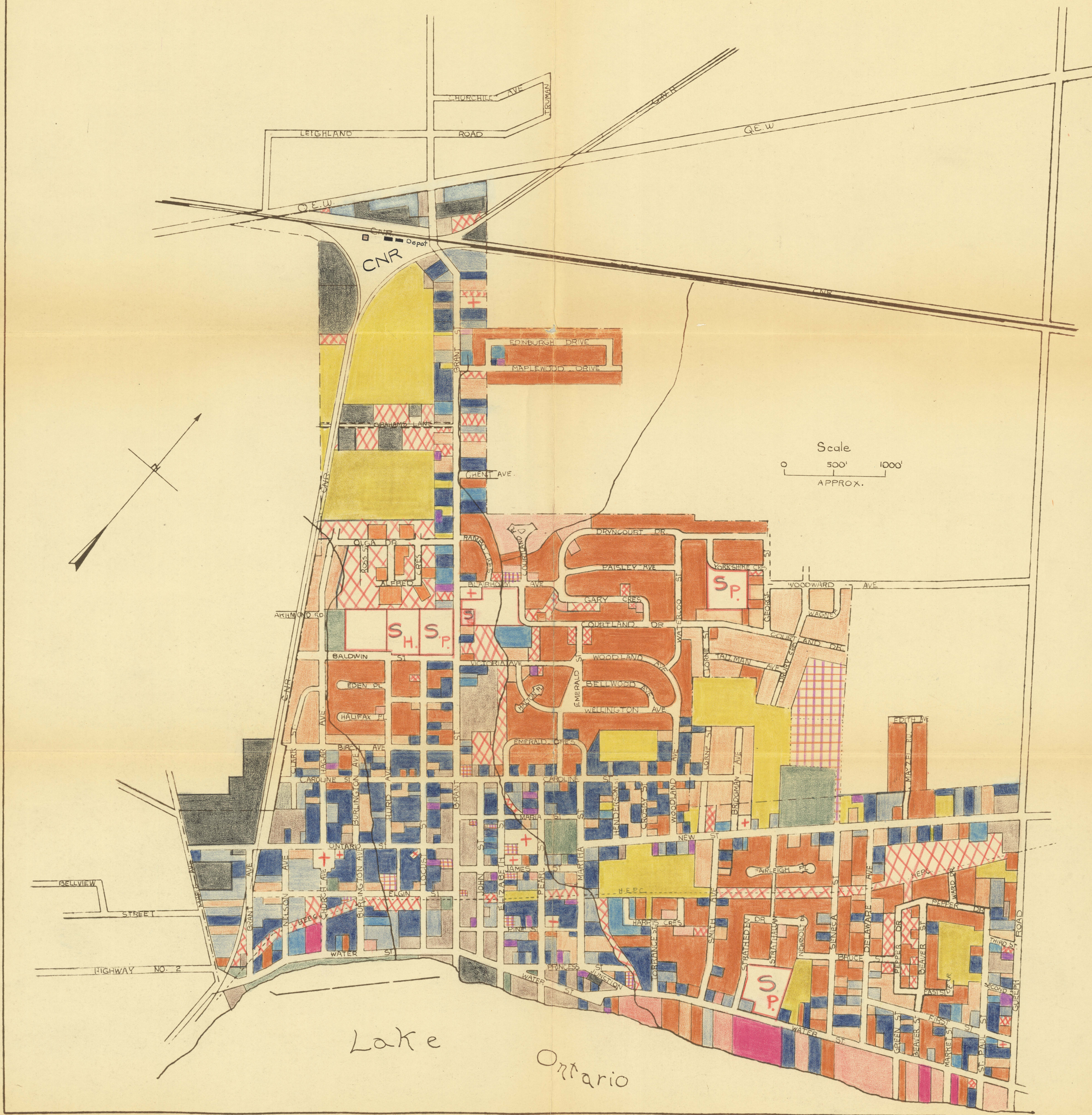


FIGURE 12

THE PRESENT LAND USE OF BURLINGTON 1956

RESIDENTIAL

	A ¹
	A
	B ¹
	B ²
	C ¹
	C ²
	D
	MULTI-DWELLING

NON RESIDENTIAL

	COMMERCIAL
	INDUSTRIAL
S	SCHOOL P - Public, H - High, S - Separate
+	CHURCH
	RECREATIONAL
	PUBLIC
	AGRICULTURAL
	IDLE



FIGURE 18

INSTITUTIONS & PUBLIC BUILDINGS

- | | |
|--|--------------------------------------|
| 1. BRANT MUSEUM | 14. FIRE HALL |
| 2. ST. LUKE'S ANGLICAN CHURCH | 15. ST. JOHN'S GREEK CATHOLIC CHURCH |
| 3. POLICE STATION | 16. BURLINGTON EAST PUBLIC SCHOOL |
| 4. DEPARTMENT OF WORKS | 17. CHRISTIAN REFORMED CHURCH |
| 5. CALVARY BAPTIST CHURCH | 18. BURLINGTON CURLING CLUB |
| 6. MUNICIPAL BUILDING | 19. BURLINGTON ARENA |
| 7. POST OFFICE | 20. BURLINGTON BAPTIST CHURCH |
| 8. INTER-URBAN AREA OF BURLINGTON-NELSON BLDG. | 21. WELLINGTON SQUARE PUBLIC SCHOOL |
| 9. BURLINGTON PUBLIC LIBRARY | 22. FREEMAN GOSPEL TABERNACLE |
| 10. TRINITY UNITED CHURCH | 23. ST. JOHN'S ROMAN CATHOLIC CHURCH |
| 11. SCOUT HALL | 24. ST. JOHN'S SEPARATE SCHOOL |
| 12. KNOX PRESBYTERIAN CHURCH | 25. BURLINGTON CENTRAL PUBLIC SCHOOL |
| 13. H.M.C.S.C. IRON DUKE | 26. BURLINGTON HIGH SCHOOL |
| 27. NEW SEWAGE DISPOSAL PLANT | |