

THE SECOND TIME AROUND

An Assessment of Recycling Warehouse Structures in Winnipeg

A Thesis Presented to the Faculty of Graduate Studies and Research
University of Manitoba

In Partial Fulfillment of the Requirements for the Degree
Master of City Planning
in the Department of City Planning

by

Peter Traverso

April 1977

"AN ASSESSMENT OF RECYCLING WAREHOUSE STRUCTURES IN WINNIPEG"

by

PETER TRAVERSO

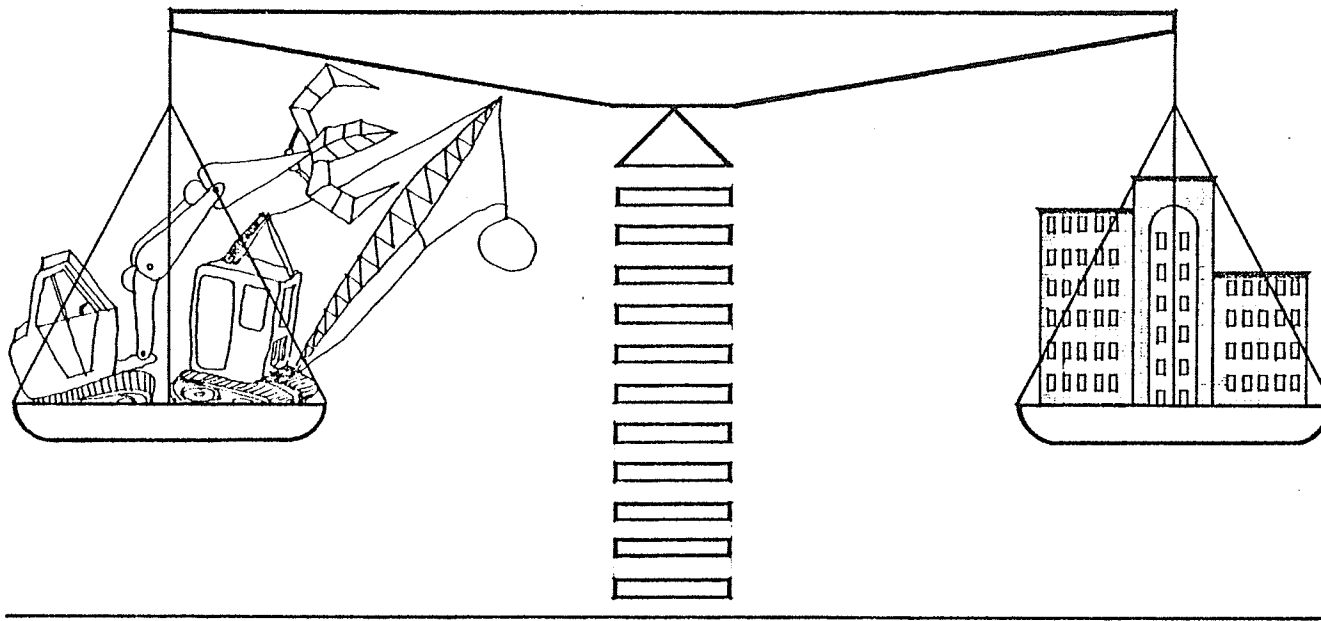
A dissertation submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
of the degree of

MASTER OF CITY PLANNING

© 1977

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this dissertation, to the NATIONAL LIBRARY OF CANADA to microfilm this dissertation and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this dissertation.

The author reserves other publication rights, and neither the dissertation nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.



THE SECOND TIME AROUND

an assessment of recycling warehouse structures in winnipeg

TABLE OF CONTENTS

	<u>Page</u>
1.0 Introduction	1
2.0 Historical Analysis	5
3.0 Warehouse Location and Urban Form	19
4.0 Recycling	27
4.1 Public Concern	31
4.2 Economics of Recycling	33
4.3 Urban Legislation	42
4.4 Innovative Techniques	47
4.5 Tourism	51
5.0 Program Formulation	54
6.0 Assessment	66
6.1 Warehouse Survey	66
6.2 Economic Considerations	68
6.3 Social, Political and Legislative Concerns	73
6.4 Evaluation of the Urban Design	75
7.0 Conclusion	77
8.0 Appendices	81
9.0 Bibliography	121
9.1 Books and Reports	122
9.2 Articles and Periodicals	124
9.3 Other References	126

ILLUSTRATIONS

	<u>Page</u>
Figure 1: Growth of Winnipeg between 1900 and 1960 by Number of Buildings	13
Figure 2: Growth of Major Urban Centres within the Three Prairie Provinces and British Columbia	16
Figure 3: Growth of the Three Prairie Provinces and British Columbia	17
Figure 4: Rise in Construction Costs in Canada between 1956 and 1976	35

TABLES

	<u>Page</u>
Table 1: Historic Legislation at Provincial Level	44
Table 2: Urban Design Program	59

URBAN DESIGN

Plans	- Location	Sheet D1
Concept	- Analysis	Sheet D2
Plan	- Existing Functions	Sheet D3
Plan	- Proposed Activities	Sheet D4
Section	- Proposed Activities	Sheet D5

APPENDICES

- Appendix A: Building Statistics for the City of Winnipeg from 1900 to 1960
- Appendix B: Growth of Major Urban Centres within the Three Prairie Provinces and British Columbia
- Appendix C: Growth of Canada, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia
- Appendix D: Value of Building Permits in Dollars per Capita, Issued in Eight Canadian Cities from 1900 to 1939
- Appendix E: Canadian Housing and Renewal Legislation
- Appendix F: Rise in Construction Costs for Mid-West Canada between 1956 and 1976
- Appendix G: Analysis of Precedent (U.S. Examples)
- Appendix H: United States Preservation Legislation
- Appendix J: /Historic/ District Zoning Principles
- Appendix K: Expenditures of Tourists (in Canada) according to their Main Activity
- Appendix L: Property Details within Study Area
- Appendix M: Summation of Property Details within Study Area
- Appendix N: Summation of Property Details of Inventory
- Appendix O: Assessed Values of Properties within Study Area
- Appendix P: Warehouse Survey. General Summation
- Appendix Q: Hard and Soft Costs of Recycling to Retail, Office and Residential Uses
- Appendix R: Summation of Minimum Hard and Soft Costs of Recycling to Retail, Office and Residential Uses
- Appendix S: Analysis of Market Value on Rental Structure when Recycling to Residential, Retail and Office Use

APPENDICES (Continued)

- Appendix T: Analysis of Market Value on Rental Structure when Recycling to Retail and Office Use
- Appendix U: Correlation of Assessed and Sample Survey Values for Recycling to Retail and Office Use
- Appendix V: Account to the Private Sector in Dollars
- Appendix W: Account to the Public Sector in Dollars

ACKNOWLEDGEMENTS

I am, unfortunately, not able to acknowledge everyone who contributed to this research, much of the information being based on simple, every-day conversations with the citizens of Winnipeg, particularly the warehouse owners who not only responded to my numerous calls, but who also completed a survey which gave direction to most of my conclusions.

I wish to extend special thanks to my advisor, Professor Basil Rotoff and readers, Professor Bruce Dexter and Professor Bob Allsopp, for their valuable input, especially during the final stages of putting this thesis together. I am also very grateful to Bob Curry of Aronovitch and Leipsic, Winnipeg, for his advice and patience in answering all my questions; the Environmental Planning Department and Assessment Office of the City of Winnipeg for making so much information available; to Heritage Canada in Ottawa and the National Trust for Historic Preservation, Washington, D.C., for their valuable references, particularly during the early stages of my program; and, Marc Denhez of Heritage Canada, for his clarification of National Heritage Legislation.

Last, but not least, I wish to thank my wife, Charmian, and sons, Nicholas and Mark, not only for their co-operation but also for their assistance on many a visit to the study area during cold Winnipeg weekends; and, Sherry Wilner for co-ordinating my untidy script into a typed document.

ABSTRACT

For some time I studied lengthy reports and somewhat fascinating urban design proposals and pondered over their search for the catalyst to transform deteriorating downtown areas into active, and therefore, prosperous districts. This issue seemed always to revolve around the same question, namely, if conversion and upgrading could actually emerge in pursuit of a simple formula, why should western cities continue to decline in the face of an ever-expanding suburbia? The purpose of this thesis is not to discover some miraculous solution, because no such diagnosis exists, but merely to throw some light on a rather complex situation.

Winnipeg, with its bright early history as gateway to the developing West and rapid subsequent growth, followed by a sudden decline which left in its wake many sound, but technologically obsolete warehouse structures, provided a good study area. The analysis, which is based on the more quantifiable aspects of an urban design for the warehouse district situated to the east of Main Street, uses five case studies as precedent and examines some of the most common aspects of these proposals in terms of a more comprehensive commitment.

The research centres largely on the present-day situation and although economics emerges as a very important yardstick, no single factor can be isolated as the catalyst. Trends imply that future situations will include a far greater number of variables related more to human and environmental needs,

and will be less concerned with the dilemma of our monetary balance sheet. Change must become an integral part of our social process, focused on the continuing modification of prevalent circumstances, as a stepping-stone within a process rather than an end in itself.

Human behavioural patterns cannot be predicted with any assured accuracy and by now it should be apparent that our traditional system, which controls by reliance to a great extent on straight-line projections, must change to respond to the actual needs of each community. In the end, society gets what it demands and each urban environment simply reflects the ever-changing value standards of its community.

1.0 INTRODUCTION

The city is the physical result of a dynamic society. It consists of physical and non-physical components which make up a complex pattern of internal and external interrelationships reflecting man's social hierarchy. Like an ecosystem in the natural environment, it constantly undergoes change causing certain areas to decay while others develop. Buildings are the products of these forces. Although developments in technology and communication have enabled the yoke of survival to be discarded, economic, political, social and cultural components survive by performance of activities deeply rooted in past tradition. Change can evolve only through understanding, but man is hesitant to acknowledge the dynamics of his present-day situation. The city must be understood in terms of totality, that is, no part is not the city. Its concern is the assessment of the consequences of man's action in his adaptation and manipulation of the environment by substituting one set of conditions for another. Actions are followed by reactions and understanding becomes the focus for the maintenance of relative stability rather than division and isolation in relation to economic product, so that events must be seen in terms of consequences.

The purpose of this study is to examine certain aspects of these underlying forces relating to the re-use of structures in deteriorating urban areas and to evaluate the nature of proposals intent on up-grading the central

environment of Winnipeg. Current literature often generates confusion with claims and counter-claims by opposing groups, each in support of a firm appraisal. Central to this thesis is an assessment of five urban recycling projects, common features of which have been incorporated into a comprehensive plan of a technical rather than design orientation. These aspects have then been tested to measure their validity under present-day conditions.

Buildings frequently become a liability when the function for which they were originally designed becomes obsolete, while existing urban legislation is often amended to allow their replacement by larger and larger structures when a particular part of the city becomes more desirable,¹ inspired by owners seeking greater profits and prestige. Although adequacy of construction and adaptability to new uses make demolition an economic and social loss in many cases, the bias of the building and allied industries towards new work has in the past prevented the consideration of alternative solutions.

The attitude which prevailed earlier seemed to imply that everything new and big was better. The concept of the City Beautiful at the turn of the century and the Urban Renewal programs of the 1950's enhanced this notion by ignoring the underlying forces in their reliance on physical solutions. The planner was called upon to improve environmental aesthetics by the removal of unwanted areas through urban surgery. The last decade saw a dramatic shift in focus where glass tower proposals became increasingly difficult to implement in the face of political opposition. The quantitative values imposed during the

¹Ironically, it is often these early structures which made the area desirable, Giorgio Cavagliere, "Plus Factors of Old Buildings," in Economic Benefits of Preserving Old Buildings (Washington, D.C.: The Preservation Press, 1976), pp. 53-54.

great influx of the western industrial revolution and the post-World War II construction boom were giving way to emerging qualitative programs more suited to North American cities.² Signs were becoming apparent in public programs orientated more towards control through environmental consideration. Western urban systems are today poised between traditional methods on the one hand and the more innovative techniques on the other, where demolition and reconstruction are becoming increasingly demanding on the supply of resources, leading to dramatic increases in the cost of land, labour and materials. The gasoline crisis in the winter of 1973 and the extension of this pattern of price increases into other commodities when western countries were suddenly faced with the doubling in the cost of one of their primary sources of energy, was a clear indication that this pattern could not continue.³

Winnipeg, having a large number of sound warehouse structures offering central location with a relatively low occupancy rate, presents a good study area. When present-day demands are examined against this energy orientated background and the high costs of new construction, one wonders why these

²Peter Wolf, The Future of the City (New York: Whitney Library of Design, Watson-Guptile Publications, 1974), p. 194.

³Freeman points out that North America represents 6% of the world's population and consumes 50% of the resources annually. While projections indicate an even higher future use ratio among western nations, increasing demands from other developing countries will not allow this pattern to continue, Melton M. R. Freeman, People Pollution (Montreal and London: McGill-Queens University Press, 1974), p. 6. About one-third of the world's population consumes about two-thirds of the food production while the net flow of protein is from hungry countries to more affluent nations, *ibid.*, p. 32.

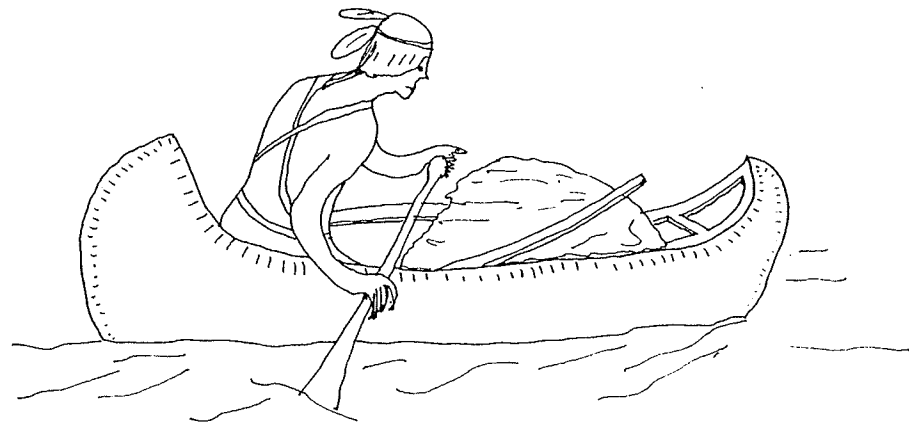
existing structures are not simply recycled in response to the needs of the market place. Herein lies the crux of this topic, in its concern for their re-use as an urban-resource.

The section on historical analysis, although somewhat lengthy, has been directed towards readers who are not familiar with early Prairie development and the author's commitment to a comprehensive analysis as a prerequisite to any significant interpretation.

2.0 HISTORICAL ANALYSIS

Historically, Winnipeg may be studied within the framework of three distinct periods, namely, the pre-1880 era, the period between 1880 and 1914 and the post-1914 era. The first marks the transition from a fur trading post to a pioneer settlement, the second illustrates the establishment of the City as a gateway to the Western region, while the third represents a gradual change towards its present-day function as a central place in accordance with the development of other centres within its hinterland. The warehouses which were constructed to meet the demands of the wholesale industry, evolved in response to its role as a major distribution centre.

The settlement owes its earlier development to its strategic location at the junction of the Red and Assiniboine Rivers when waterways were the only feasible means of transportation. French explorers were the first Europeans to locate on the existing site and establish trade connections with the rich fur bearing region to the north.⁴



⁴Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), pp. 6-8.

After the conquest of Canada by the British in 1763, this trade was taken over by the North West Trading Company which later merged with the Hudson's Bay Trading Company. Although furs were traditionally shipped to London via the lakes, rivers and the Hudson Bay to the north, other routes, particularly to the south, were gaining importance.⁵ The prominence of these waterways should be understood by examining their full extent, namely, by connection to the vast Prairie region to the west by means of the Assiniboine and Saskatchewan Rivers (via the Red River and Lake Winnipeg), to the eastern seaboard by means of Lake Superior, to the United States and indirectly to the Gulf of Mexico to the south via the Red and Mississippi Rivers and to the Hudson Bay in the north via the Red River, Lake Winnipeg and the Nelson River.

From its earliest days, control over the settlement was exercised by one or more of the emerging power groups. This pattern was to remain until the end of the second historical period. The Hudson's Bay Trading Company owned the greatest amount of real estate and governed for most of the pioneer period. The land for the first settlement under Lord Selkirk in 1812 was purchased from this company for the sole purpose of growing agricultural products to feed the employees of its widely dispersed trading posts⁶ and became known as the Red River Colony.⁷ Free traders were able to operate within the territory of

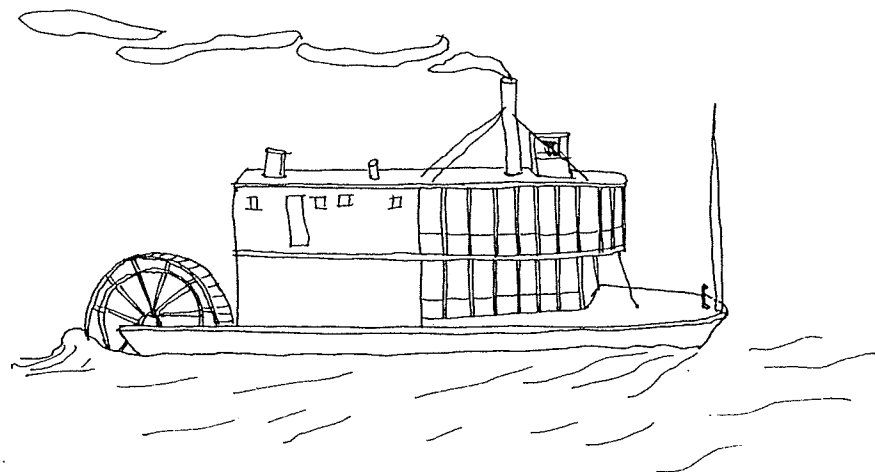
⁵M. L. Hartsough, The Development of the Twin Cities as a Metropolitan Market" (University of Minnesota Press, 1924), p. 21.

⁶Alan F. J. Artibise and Edward H. Dahl, Winnipeg in Maps, 1816-1972 (Ottawa: National Map Collection, Public Archives of Canada, 1975), p. 3.

⁷The name "Winnipeg" was first applied in 1866 to distinguish a certain M. McKenney's Store and surrounding buildings from the remainder of the Red River Community. Ibid.

Minnesota instead of through the Hudson's Bay Company as before. The effect was the development of a transportation technology directed towards the south rather than the waterways to the north.

The end of the pioneer period was marked by developments which involved rapid expansion from a hamlet serving the Red River Colony to an urban settlement. The first steamboat arrived in 1859 and marked the end of a long era of isolation.⁸ By 1862 it had become the chief means of communication and by 1878 the number had increased to fifteen.⁹ Winnipeg was then supplying not only its own needs but also the requirements of newly establishing agricultural hamlets in surrounding hinterland.¹⁰

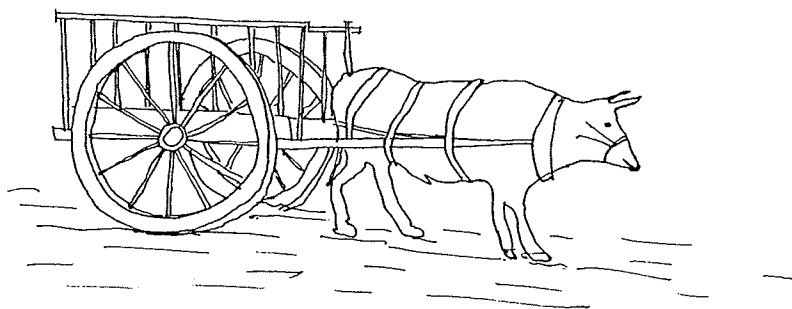


⁸F. C. Lucas, An Historical Souvenir Diary of the City of Winnipeg, Canada (Winnipeg: Cartwright and Lucas, 1923), p. 96.

⁹Margaret McWilliams, Manitoba Milestones (Toronto: J. M. Dent and Sons, 1928), p. 115.

¹⁰A steamboat could carry about 350 tons of freight and 200 passengers. Hans A. Hosse, "The Areal Growth and Functional Development of Winnipeg from 1875 to 1913" (Master's Thesis, University of Manitoba, 1956), p. 40-45 citing A. Begg and W. R. Nursey, Ten Years in Winnipeg (Winnipeg: Times Printing and Publishing Company, 1897).

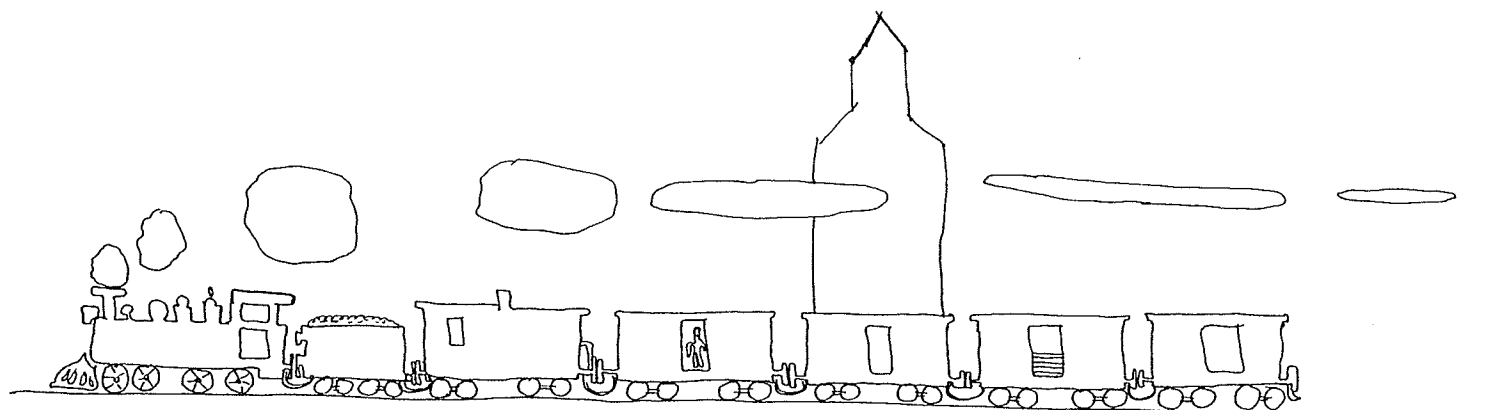
During this period it was practically cut off from the remainder of Canada and goods were transported mainly by means of the waterways and newly constructed railroads to the United States in the south, while access to the developing Western region was often limited to transportation by Red River Wagon in summer and the sled in winter. The development of the bordering United States territories and the flow of immigrants along these lines of communications aroused serious concern that the influence might spread across the border should Canada not itself develop the territory. After the incorporation of the Red River Colony into the Canadian Confederation in 1870, rapid expansion took place populated mainly from Britain and Ontario.¹¹ The impact of this course of action which totally changed the nature of the early settlement¹² can best be gauged by the dramatic increase from a population of about 100 persons in December 1870 to 3700 in 1874.¹³



¹¹P. H. Wichern, Jr., ed., "The Development of Urban Government in the Winnipeg Area," vol. 1 (Department of Urban Affairs, Province of Manitoba with the co-operation of the Department of Political Studies, University of Manitoba, 1970), p. 5.

¹²Winnipeg was incorporated as a City in 1873 under the Provincial Government of Manitoba, *ibid.*, p. 7.

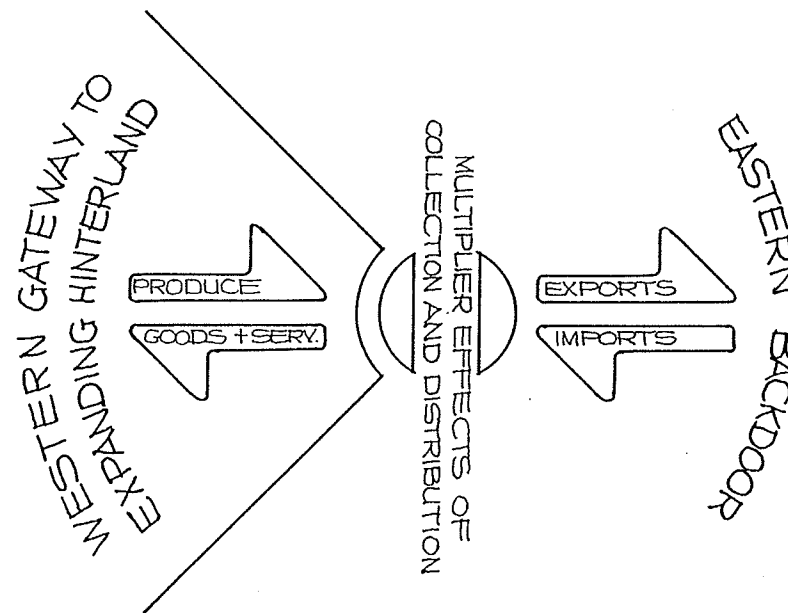
¹³W. L. Morton, Manitoba: A History (Toronto: University of Toronto Press, 1957), p. 166.



The middle period between the years 1880 to 1914 represents the most important era in the history of the City, centred upon the somewhat premature construction of the transcontinental railroad.¹⁴ Winnipeg's role was fast becoming that of the back door to the east and gateway to the developing west.

¹⁴The development of the Western provinces hinged on a transportation technology. The American transcontinental system to the south which could adequately have served this Region would have had an adverse effect on its development, Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), pp. 25-26, citing Beckles Wilson, Lord Strathcona, The Story of His Life (London, 1902), p. 181.

The final decade of the pioneer period saw the transfer of power from a single source to an evolving power elite who were to govern for the next thirty-four years. The federal government was firmly committed to the construction of a railroad and it became clear that a major gateway city favourably located somewhere between Lake Winnipeg in the north and the United States border in the south, at the narrow eastern periphery of these plains which lacked the technology of a transportation media towards the west, would inevitably be required for the distribution of goods and services.



Winnipeg's development as an urban centre must be attributed more to socio-political forces than strategic geographic significance, for it was both isolated from other established centres and removed from the more fertile lands of the West.

Winnipeg's location was not thought to be suitable for a great city. It was said to be muddy and swampy and far too far east from choice lands, and "unfortunate in its surroundings", but the finger of destiny and the energy and confidence of its citizens all pointed to its being the chosen city of the prairies.¹⁵

¹⁵ Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (Montreal and London: McGill-Queens University Press, 1975), p. 6, quoting George Bryce, Illustrated History of Winnipeg (1905).

Although the City dominated the other Red River Settlements and had become the natural seat of government following the proclamation of the Manitoba Act of July 1870,¹⁶ other centres, particularly Selkirk to the east, were more favourably situated for the location of the proposed transcontinental railroad and service yards. The governing power elite saw the railway as the key to success without which Winnipeg's dominance as a commercial centre would fall. In their determination to see no other centre challenge their regional importance, the attraction of the railroad through Winnipeg took precedence over all other considerations. These businessmen gave priority to growth and economics usually to the detriment of the settlement. Fear of failure was the driving force, for they realized that growth could only be maintained by the multiplier effects of attracting more people and that nearby settlements could easily capture their markets.

Economic and political considerations eventually overruled the obvious physical benefits of Selkirk and by 1881, through heavy public commitments and concessions virtually giving the railway authorities a free hand to locate throughout the city with almost no control, the main line was not only directed through Winnipeg, but it was also to have the workshops and service yards. An outstanding aspect was that the head of the Canadian Pacific Railway syndicate was also a majority shareholder of the Hudson's Bay Company, which was probably the largest single holder of real estate in the City and stood to make immense profits should Winnipeg be selected as a terminal point.^{16a}

¹⁶Ibid., p. 10.

^{16a}Artibise also points out that the City might have gained selection as a terminal point in any event and might even have been able to exercise a certain degree of restraint in the location of the tracks and service yards; Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (London and Montreal: McGill-Queens University Press, 1975), pp. 71-76.

The news led to feverish speculation particularly for real estate in central locations or bordering proposed transportation routes. Winnipeggers were confident that the City would become the leading commercial centre of the north west. The boom was short-lived and collapsed in 1882, but the local economy soon returned to its previous expansive trend. By 1886 the development of the City had changed from a speculative to an agrarian economic base having direct access to over 100 million acres of fertile land to the West.¹⁷ New settlements locating at 15 to 20-mile intervals,¹⁸ promoted the construction of additional rail facilities which, in turn, supported the growth of this pattern within an ever-expanding threshold area and by the turn of the century, Winnipeg was the undisputed centre of not only the Western grain trade,¹⁹ but also the wholesale industry, operating under favourable freight concessions. Many warehouses were built to store goods destined for distribution within the Prairie region while multiplier effects were gradually developing a secondary service which was to eventually have a stabilizing effect on the urban economy.

Favourable national and international conditions led to unprecedented growth under the governing commercial elite in the fourteen-year period ending in 1914. Figure 1 illustrates that during this period more buildings were

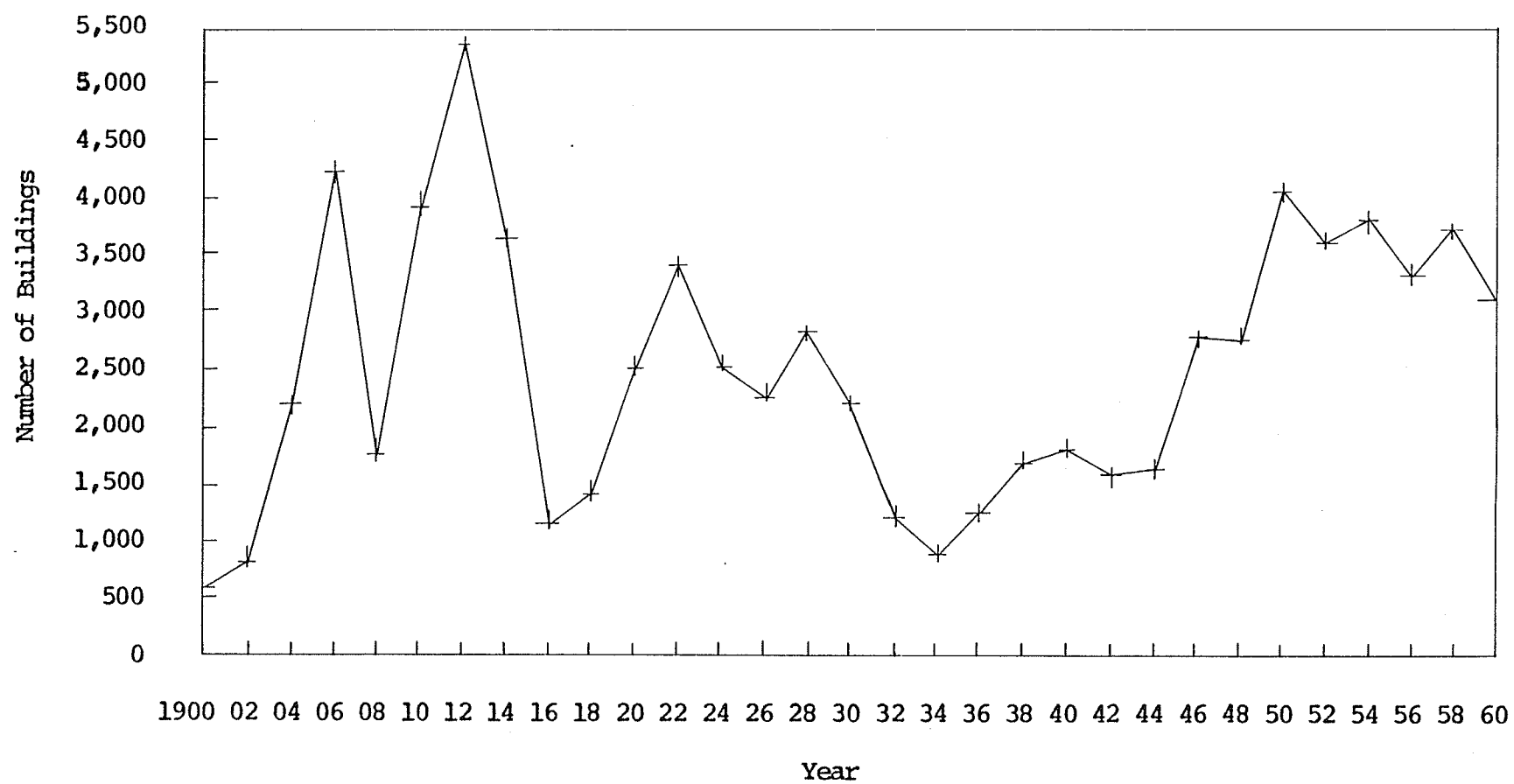
¹⁷Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), p. 71.

¹⁸Margaret McWilliams, Manitoba Milestones (Toronto: J. M. Dent and Sons, 1928), p. 160.

¹⁹R. Schmidt, "Winnipeg as a Transportation Centre," in Winnipeg 1874-1974, ed. Tony Kuz (Winnipeg: Manitoba Department of Industry and Commerce, 1974), p. 213.

Figure 1

Growth of Winnipeg between 1900 and 1960 by Number of Buildings (See Appendix A)



erected than in any other era, where in 1904 the value of building permits exceeded any other city in Canada, totalling \$9.6 million compared to \$5.9 million in Toronto and \$3.7 million in Montreal.²⁰ In 1912 alone, no fewer than 37 warehouses were built²¹ and the City was fast becoming known as the "Chicago" of the north.²² The governing elite had achieved their goal and Winnipeg was not only the third largest city in Canada, but was also the undisputed gateway to the West, serving as a regional banking, employment and transportation centre.²³

The post-1914 era represents a change from a gateway function to that of a maturing central place.²⁴ Fundamental changes were occurring which were to change the economic and political structure of the City's rather weak geographic location, while the ever-expanding railway network which had played such an important role in its domination over the Prairie region was now aiding in its decline.

²⁰Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), citing Winnipeg Board of Trade, 26th Annual Report, p. 21.

²¹Ibid., p. 206, citing Winnipeg Free Press, November 23, 1912.

²²Ibid., pp. 140-141; Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (Montreal and London: McGill-Queens University Press, 1975), pp. 15 and 133.

²³Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (Montreal and London: McGill-Queens University Press, 1975), p. 283.

²⁴Tony Kuz, "Metropolitan Winnipeg: Inter-Urban Relationships," in Winnipeg 1874-1974, ed. Tony Kuz (Winnipeg: Manitoba Department of Industry and Commerce, 1974), pp. 7-19.

The level of economic activity, because of its dependence on the fluctuating price of wheat, was governed by national and international considerations and inevitably led to a succession of depression and boom years. The advent of World War I and the opening of the Panama Canal in 1914, followed by the development of other Western centres more favourably located in relation to agricultural production, then challenged its role which it had defended so carefully. This trend was further enhanced in later years by the evolution of alternate marketing techniques and the emergence of Vancouver as a major centre for the collection and distribution of Western wheat and other goods, assisted by cheap navigational rates because of a surplus number of post-war ships and the removal of favourable rail concessions.²⁵ The rise and fall of Winnipeg as the gateway to the developing west is illustrated in Figures 2 and 3 where Vancouver's growth is the most dramatic in its take-over as Canada's third largest city. A comparison of figures in Appendix B indicates that the City's growth started to fall below that of other national centres towards the latter years of the 1920's.

Present-day Winnipeg represents the stage of a self-sustaining but slow growth where its threshold area is limited to the provinces of Manitoba and northwestern Ontario rather than the vast Prairie region. Its economy relates to a shift from an agricultural base towards the development of technologically oriented secondary industries where finance, commerce, transportation and communication rather than the evolution of primary industries, play an important

²⁵Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), pp. 298-305.

FIGURE 2

Growth of Major Urban Centres within the Three Prairie Provinces
and British Columbia (See Appendix B)

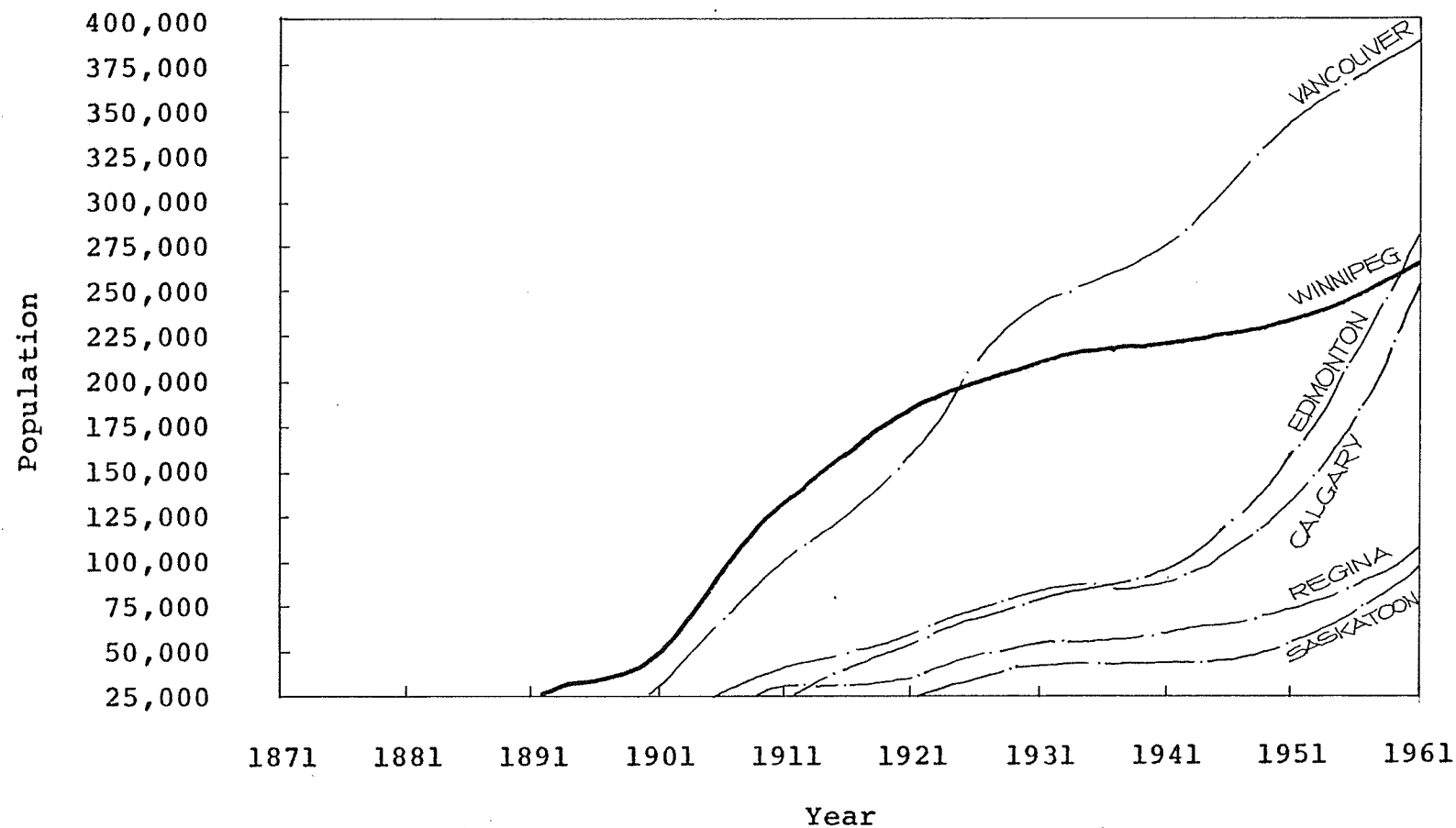
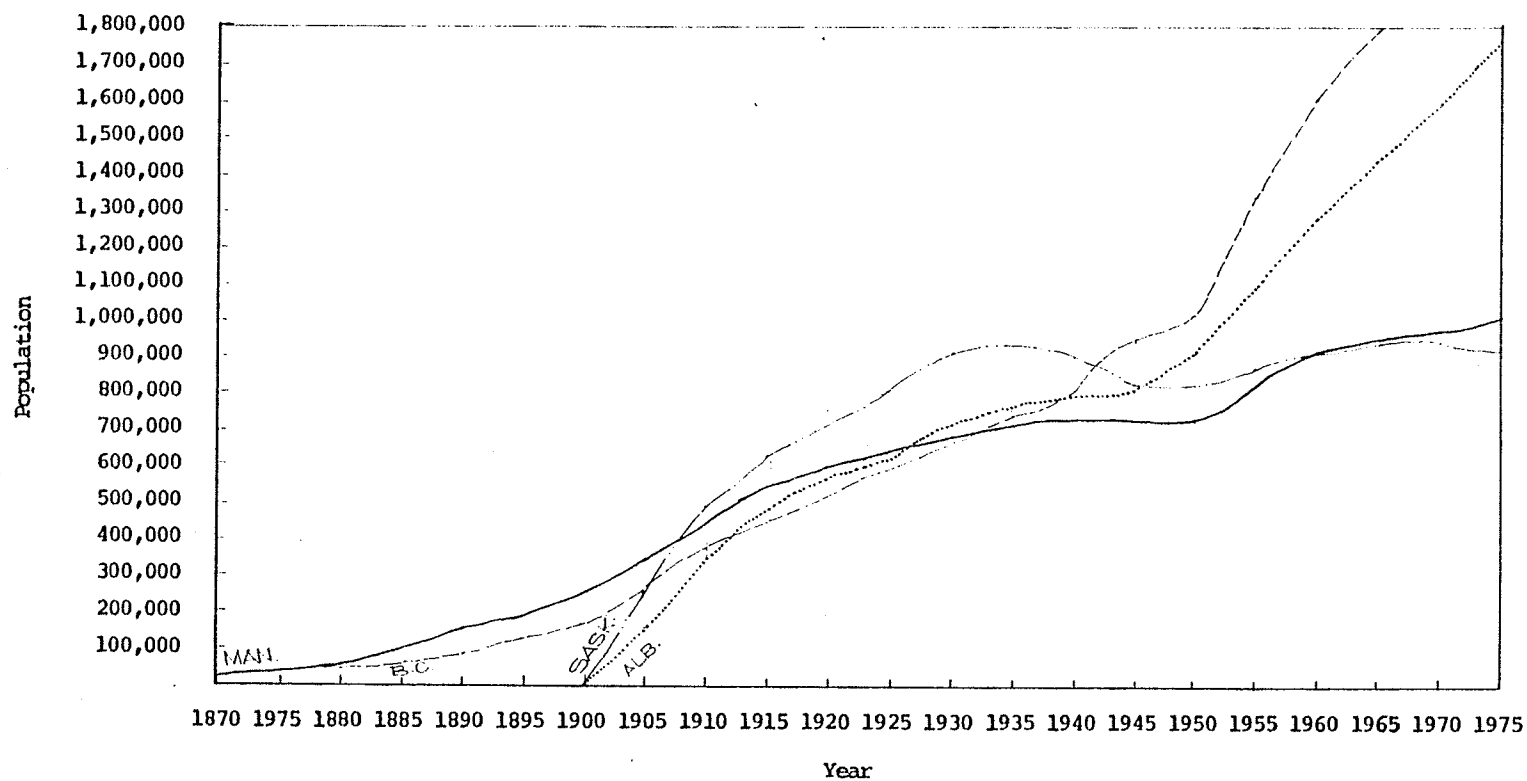


FIGURE 3

Growth of the Three Prairie Provinces and British Columbia (See Appendix C)



role.²⁶ The nature of its future function is speculative and hinges on economic and political decisions taken at the national level although it still commands a terminal location, particularly in relation to air, road and rail transportation.

²⁶David Hum, "The Future Economic Prospects of Winnipeg: An Analytical Speculation," in Winnipeg 1874-1974, ed. Tony Kuz (Winnipeg: Manitoba Department of Industry and Commerce, 1974), p. 241.

3.0 WAREHOUSE LOCATION AND URBAN FORM

Winnipeg's early growth clearly outlines the relationship between political and economic influences where the former attracted the gateway function for performance by the latter which generated financial gains for the local merchants and governing elite. The economic base in the pre-1914 era was concerned with an undisputed monopoly for the supply and service of a rapidly expanding agricultural hinterland which eventually led to its emergence as the headquarters of the Western Grain Trade. In performance of supply rather than manufacture, storage facilities were built instead of factories and warehouses evolved in direct response to these distributive needs. The nature of its early role where wholesaling and retailing functions were often performed by the same merchant,²⁷ the seasonal character of the trade which demanded the accumulation of large supplies of stocks and the image of Winnipeg as the Chicago of the north-west led to the construction of mammoth, centrally located warehouses of a prestige nature.²⁸

²⁷R. B. Short, "The Wholesale Function in Winnipeg" (Master's Thesis, University of Manitoba, 1973), p. 46.

²⁸R. C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), pp. 150-151.

Traditionally, wholesale districts locate in proximity to their clientele, but closest to their source of supply.²⁹ The earliest warehouses were, therefore, located east of Main Street, between the junction of Portage Avenue and Main Street and the Red River when transportation related to steam-boat technology plying between Canada and the United States.³⁰ The advent of the railroad and developments in transportation technology allowed the warehouses to locate closer to the central core, but at the same time, loading and unloading demands required space which could not be obtained in suitable amounts or at reasonable prices. Warehouses were, therefore, erected north of the 'intersection' along routes branching east and west off Main Street in close proximity to the centre of the local market, financial institutions and the expanding railway network.

The accumulation of events in the post-1914 period had an adverse effect on the wholesale sector and marked the end of the warehouse era. The short-term outcome was the relocation of a substantial number of merchants to smaller developing western cities while changes in communication allowed manufacturers to market directly to retailers, drastically reducing and often entirely remov-

²⁹R. B. Short, "The Wholesale Function in Winnipeg" (Master's Thesis, University of Manitoba, 1973), p. 19.

³⁰These warehouses were mostly of timber construction; the last was demolished in June 1956, H. A. Hosse, "The Areal Growth and Functional Development of Winnipeg from 1875 to 1913" (Master's Thesis, University of Manitoba, 1956), p. 121, citing Winnipeg Board of Trade, Annual Report of 1884.

ing the role of the wholesaler.³¹ Further influences included the emergence of an automobile and trucking technology which afforded unprecedented mobility to a somewhat restricted population, eventually making a downtown location less desirable. Developments in goods handling techniques, namely the fork-lift truck, were more suited to the horizontal operation of large, single-floor, suburban structures.³² The warehouses never regained their previous status and became recognized as an economic burden on public resources, occupied mainly by activities demanding a central location without having to pay high downtown rentals.³³

Although many theoretical analyses can be applied to Winnipeg's growth pattern, the explanations offered by two authors are of particular significance. The first involved an experiment using coloured chips to represent the various aspects of urban activity³⁴ and led to the conclusion that when cities were in a

³¹Bellán points out that the emergence of mailorder distribution presented another serious challenge which contributed to the decline of the wholesale trade; R. C. Bellán, "The Development of Winnipeg as a Metropolitan Centre (Ph.D. Thesis, Columbia University, 1958), citing Nicholas Kaldor, "The Economic Effect of Advertising," Review of Economic Studies, 1949-1950, pp. 17-18.

³²R. B. Short, "The Wholesale Function in Winnipeg" (Master's Thesis, University of Manitoba, 1973), pp. 28-29.

³³The garment industry owes its rapid expansion in the post-1930 era to the availability of this accommodation, R. Hastie, "The Development of the Apparel Industry of Winnipeg," in Winnipeg 1874-1974, ed. Tony Kuz (Winnipeg: Manitoba Department of Industry and Commerce, 1974), p. 129.

³⁴Rutledge Vining, "A Description of Certain Spatial Aspects of an Economic System," Economic Development and Cultural Change, 3 (1955): 147-195.

state of stable structure,³⁵ continuous shifts occurred in the distribution of activities from one centre to another which led to the decline of one in proportion to another's growth. The second hypothesized that the transitional zone, traditionally referred to as the 'grey area' composed of mixed land uses which tended to financially burden the governing authority, should be examined not as a single, homogenous unit, but rather in terms of three components, namely, the sector of active assimilation, the sector of passive assimilation and the discontinuous sector of inactivity.³⁶ The first represented the area into which the CBD was expanding, characterized by the replacement of qualitative residential accommodation by competitive non-residential activities and can be equated with the present-day area between Portage Avenue and the Assiniboine River, Main and Osborne Streets. The second included that portion being absorbed by the transitional zone after having been discarded by the Central Business District (CBD) in its redirection and reflected an earlier role as the heart of the city, often orientated towards a railroad or river and characterized by technologically obsolete structures and services. Land use was well suited to the less demanding requirements of the private sector who could not afford high central rentals but needed a downtown location, and was dominated by wholesale, light industry, retail and service outlets, with a fairly high

³⁵ Stable structure or "statistical equilibrium" implies a continuous movement of units among small centres contained within a total area which maintains a regular form, *ibid.*, p. 187, citing Samuel A. Stouffer, "Intervening Opportunities: A Theory Relating to Mobility and Distance," American Sociological Review 5 (December 1940): 845-867.

³⁶ Richard Preston, "The Transitional Zone Structure - the Three Sector Hypothesis," Town Planning Review 39 (October 1968): 235-249.

vacancy rate. This category is applicable to the warehouse districts bordering Albert and Main Streets. The third sector was located further out, characterized by badly deteriorated structures which were inhabited by low-income and minority groups in overcrowded conditions and is descriptive of the traditional 'north end' of the City.³⁷ This thesis is concerned mainly with the second of these categories, that is, the sector of passive assimilation and an examination of the nature of wholesale reveals further detail regarding the evolution of the warehouse structures.

The growth of Winnipeg's urban pattern reflects the outward movement of residential activity from a central core in the path of commercial and industrial expansion, which led to the spacial separation of areas into places of employment and residence in terms of affluent and non-affluent Anglo-Saxon or foreigner, towards the familiar issues of modern urban life. Development concentrated on traditional routes, spreading westward from the commercial centre at the intersection of Portage Avenue and Main Street.³⁸

The earliest structures were located between the Red River and the 'intersection' and spread northwards to Fort Douglas along Main Street to link Upper Fort Garry and the Selkirk settlements.³⁹ The rivers which had played

³⁷The sector as passive assimilation lies between this area and the CBD and acts as a buffer, *ibid.*, p. 244.

³⁸Portage Avenue was once the Portage Trail following the Assiniboine River while Main Street followed the pattern of Main Trail running parallel to the Red River; Wilhelm Kaufmann /illustrated by/, City of Rivers (Department of Industry and Commerce, Bureau of Travel and Publicity, ?), p. 3.

³⁹H. A. Hosse, "The Areal Growth and Functional Development of Winnipeg from 1875 to 1913" (Master's Thesis, University of Manitoba, 1956), p. 189.

such an important former role as a means of communication, presented a barrier and directed growth towards the north and west. The marketing of large amounts of land between Portage Avenue and the Assiniboine River by the Hudson's Bay Company⁴⁰ and the arrival of the railways and service yards, divided the city into social groups and this new area to the south and west of the commercial core became exclusive to the more affluent sectors of the society. The eventual bridging of the Assiniboine River enhanced this pattern of expansion in a southerly direction.⁴¹

The emergence of the City as headquarters of the Western grain and wholesale trades led to a construction boom which centred on the area north of Portage Avenue before spreading east of the 'intersection'. The construction of the Exchange Building on Princess Street in 1882⁴² attracted bankers and merchants and led to the establishment of a wholesale district between Princess Street in the west, Main Street to the east and Portage Avenue to the south. The construction of the new Grain Exchange Building on Lombard Avenue to the east of Main Street shifted the commercial focus back to the area north of the

⁴⁰Ibid., pp. 99-100.

⁴¹Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (Montreal and London: McGill-Queens University Press, 1975), pp. 152-173.

⁴²H. A. Hosse, "The Areal Growth and Functional Development of Winnipeg from 1875 to 1913" (Master's Thesis, University of Manitoba, 1956), pp. 138-141, citing Henderson's City Directory of Winnipeg 1895 and City Assessment Rolls.

intersection and led to the construction of more warehouses to the east and west of Main Street.⁴³

The decline of the wholesale trade, coupled with the development of service orientated establishments between huge retail stores built by the T. Eaton Company in 1905⁴⁴ and the Hudson's Bay Company in 1926,⁴⁵ extended the urban focus westwards along Portage Avenue in pursuit of an expanding, more affluent society and led to the decline of the Main Street area. The resultant voids are well suited to Vining's explanation regarding the occurrence of shifts in the distribution of urban activities.⁴⁶

The present-day pattern reinforces these earlier trends and is in accordance with the outline presented by Preston regarding the structure of the transitional zone.⁴⁷ The area south of Portage Avenue bounded by the Assiniboine River, Osborne and Main Streets remains the most fashionable area

⁴³Ibid., citing Henderson's City Directory of Winnipeg 1913, pp. 542-551.

⁴⁴Alan F. J. Artibise, Winnipeg: A Social History of Urban Growth, 1874-1914 (Montreal and London: McGill-Queens University Press, 1975), p. 154.

⁴⁵Ruben C. Bellan, "The Development of Winnipeg as a Metropolitan Centre" (Ph.D. Thesis, Columbia University, 1958), p. 366, citing Winnipeg Free Press, December 20, 1924.

⁴⁶See footnote on Page 22.

⁴⁷See footnote on Page 23.

into which the CBD is expanding, representing the highest land values.⁴⁸ Existing and proposed functions are orientated mainly towards secondary services and the needs of the middle socio-economic sectors of the population.⁴⁹ The desirability for a Main Street location continues to decline and generally represents some of the lowest, present-day, downtown land values.⁵⁰

⁴⁸Discussions with local realty agents revealed that this area contained the highest land values in the City, reaching levels of \$100 to \$115 per square foot.

⁴⁹Downtown expansion at present occurs at a rate of about one acre of land or 225,000 square feet for office and one-half acre of land or 200 units per annum for residential accommodation, while the central City continues to show a net increase in the availability of vacant land for redevelopment, from 52,20 acres in 1970 to 57,82 acres in 1975. This must be examined against the slow growth rate of less than 2%, Department of Environmental Planning, "Downtown Alternatives" (Winnipeg: City of Winnipeg, 1975), pp. 10-23.

⁵⁰Discussions with local realty agents revealed that land values east of Main Street ranged from about \$3 to \$10 per square foot.

4.0 RECYCLING

Recycling involves the introduction of new functions into the fabric of existing structures, usually different from that for which they were originally designed and involves technologically up-grading the buildings to meet modern functional and safety standards. Ultimately, the choice involves two alternatives, namely, to demolish or to restore. Present-day programs represent a shift from preservation of individual structures for cultural or aesthetic reasons towards the concept of economically recycling whole districts. Plus factors have moved away from justification on the grounds of substantial financial savings towards a recognition of the final development potential of an entire area where social, environmental and cultural benefits, coupled with locational advantages and the difficulty of reproducing the aesthetic and physical characteristics of the volumes and materials, afford favourable competition at rental rates comparable to new construction.⁵¹ One of the most serious problems involves the inherent difficulty in evaluating non-quantifiable activities and the failure of many earlier programs related to the unconditional application of accepted standards in adapting physical form to new functions.

⁵¹George M. Notter, Jr., "Building Reuse in New England: Identifying the Hidden Assets," in Economic Benefits of Preserving Old Buildings, the National Trust for Historic Preservation (Washington, D.C., The Preservation Press, 1976), pp. 59-66.

North American cities have traditionally favoured designs for new developments. Urban legislation supported this situation by modifications which permitted the removal of older buildings in the path of new and bigger structures when certain areas of the city became more desirable. This led to the establishment of a movement primarily concerned with the preservation of historic buildings and restoration to their original state, usually simulating their original uses and often reliant on funding from private sources. Events of the last thirty years caused serious concern, particularly in the United States, and led to environmentally conscious citizens joining the previously lone stand of the historians, with increasing governmental support. Programs often ignored the forces of the market place in their concern for preservation and were neither economically nor physically able to cope with the level of urban obsolescence.

The last decade witnessed the dramatic swelling of these ranks to include economists and politicians and represented an unprecedented move away from this earlier approach towards a greater understanding of the socio-economic structure of the community. The built environment became recognized as the foundation for new development rather than a fungus to be removed.⁵² This, coupled with the emergence of a critical shortage of raw materials and a dramatic rise in the cost of associated operations, reinforced the concept of

⁵²Baird Smith, "Adaptive Use," the Advisory Council on Historic Preservation, Washington, D.C., Report 4 (June, 1976); Michael Seetig, "Area Conservation as an Asset - not a Necessary Evil," Architectural Record 156 (December, 1974).

older districts fulfilling the performance of an urban resource,⁵³ offering substantial savings in reserves and energy. A combination of the principles of conservation, development and the economic use of the environment is now leading to a progressive reassessment of public funding away from new construction in support of rehabilitative programs.⁵⁴

Having established common cause, the next step naturally involved the identification of major constraints. The scale and complexity of many operations required the participation of the public and private sectors within the framework of a clearly defined policy. At present, local authorities often shy away from rehabilitative programs because of the anticipated burdens on their available resources.⁵⁵ If recycling is to make a significant contribution, the mechanics of the legislative procedure should allow for greater

⁵³Farrel, "Our Existing Buildings are a Valuable Resource like Coal in the Ground or Oil under the Sea," RIBA Quarterly Journal (April to June, 1976): 172-179.

⁵⁴Stephen A. Kliment, ed., Neighborhood Conservation (New York, The Whitney Library of Design, 1975), p. 1/3.

⁵⁵The Landmarks Preservation Commission of the City of New York is today burdened with the responsibility of 452 landmarks and 25 historic districts incorporating a further 9,000 buildings, Lawson B. Knott, Jr., "The Impact of Historic Preservation on Development and Land Use," Urban Land (July/August, 1975): 6.

participation within the private sector by handing over increased responsibilities. An examination of precedent at national and international levels revealed that implementation can broadly be contained within the following outline:⁵⁶

- Concern centred mainly on deteriorating downtown areas or older districts destined for 'traditional' renewal programs.
- Initiative came from local citizen groups usually in protest against the proposed destruction of accommodation which they considered socially, culturally and economically worthy of preservation for the benefit of the urban environment.
- This concern was followed by action at local or city levels in making resources and significant amounts of funding available from federal, state, local or institutional sources, often using existing programs.
- Programs were implemented in accordance with operational policy which usually included an inventory for the selection of structurally sound buildings suitable for recycling as well as the demolition of unsound accommodation.⁵⁷ The final pattern often included infill development with concern aimed at maintaining the characteristics of the district.

⁵⁶A complete listing is beyond the scope of this context although two reports were of particular significance, namely, Economic Benefits of Preserving Old Buildings, the National Trust for Historic Preservation (Washington, D.C., The Preservation Press, 1976), and Stephen A. Kliment, ed., Neighborhood Conservation (New York, The Whitney Library of Design, 1975).

⁵⁷Relatively few buildings were demolished.

- Innovative techniques involved the frequent use of /Historic/ District Zoning and in a few cases the Transfer of Development Rights. Most projects required some modification to existing urban legislation.
- The success of projects at this level depended largely on the degree of co-operation between property owners, governmental agencies, and community and private organizations.

4.1 Public Concern

The Federal Urban Renewal programs, aimed primarily at regaining lost fiscal revenue, served as generators of public reaction in the progression from demolition of older areas in the 1950 era towards a reassessment in the mid-1950's, eventually leading to an orientation towards rehabilitation. The concern of the 1970's was often formulated by citizens enraged after witnessing the wasteful destruction of familiar urban patterns.⁵⁸ Governmental intervention emerged in direct response to this reaction, while the history of Canadian Housing and Renewal legislation, as outlined in Appendix E, clearly illustrates the redirection of funding towards recycling. For far too long, authorities had concentrated on the advantages of the 'tax base' and ignored both social upheaval and economic consequences.⁵⁹ Assessment led to the realization that

⁵⁸ Neighborhood Conservation, ed., Stephen A. Kliment (New York: The Whitney Library of Design, 1975), pp. 111/1-111/121.

⁵⁹ In the United States alone, of 40,000 businesses, only about one-third survived relocation, the City of Vancouver Planning Department, Restoration Report: A Case for Renewed Life in the Old City.

traditional Renewal programs involved an expenditure of 75% of the investment on destruction leaving 25% for renewal which averaged from 8 to 12 years involving the displacement of thousands of persons and the dissolution of entire neighbourhoods.⁶⁰

The degree of citizen participation in North American urban politics is increasing and the private sector are demonstrating both willingness and ability to conserve and recycle structures. In Canada the point has been reached where intervention by public or local authorities is overdue.⁶¹ A recent survey at national and international levels indicated that 61% of the business community favoured stronger laws for the protection of historic buildings, 69% approved compensation to owners whose buildings were subject to protection laws, while 71% sanctioned government intervention in the purchase of such property.⁶² In the United States, the National Trust for Historic Preservation, an organization established to facilitate participation in the preservation of sites, buildings and objects of national interest, today represents a membership in excess of 70,000 and increased by 49% between 1974 and 1975 at a rate of 2,000 monthly.⁶³

⁶⁰Martin Anderson, The Federal Bulldozer (New York: McGraw-Hill Book Company, 1966), pp. 52-91.

⁶¹George Galt, Investing in the Past (Heritage Canada, 1974), pp. 7-13.

⁶²The survey was conducted in August 1974 for the Financial Times of Canada, *ibid.*, p. 8.

⁶³Lawson B. Knott, Jr., "The Impact of Historic Preservation on Development and Land Use," Urban Land (July/August, 1975): 2.

Recent events in support of recycling proposals for some of the older downtown buildings indicate that Winnipeggers, although somewhat behind the rest of North America, are beginning to realize the hidden assets in their abundant supply of warehouse accommodation.⁶⁴

4.2 Economics of Recycling

Economics has emerged as the single, most important factor in recycling programs, although future trends are focusing on its extension into the realms of resource planning. Precedent indicates a great deal of disarray at national and international levels centering on a movement away from earlier proposals where justification responded to substantial financial savings, toward the present-day conclusion that differences in construction costs and market rentals are insignificant, benefits relating more to less apparent aspects beyond the monetary balance sheet.⁶⁵

North American economics are generally geared to patterns which traditionally meant the replacement of older structures, involving fewer risks owing to the ease of quantifying new buildings. The unknowns associated with recycling programs present a financial hazard and act as serious deterrents. Lending institutions are today still hesitant to release funds and often impose conditions which make redevelopment difficult or impossible. The reality of

⁶⁴Darlene Meakin, "Albert Street Area Renovation Goal of Neighborhood Business," Winnipeg Tribune, July 16, 1976; W. P. Thompson, "Old Buildings Can Be Revitalized," ibid., March 25, 1975; Val Werier, "The Beautiful Buildings of Winnipeg," ibid., June 1, 1976.

⁶⁵Baird Smith, "Adaptive Use," the Advisory Council on Historic Preservation, Washington, D.C., Report 4 (June, 1976).

present-day preservation relates to the acceptability of the market rental value which determines the character of the development. In short, a structure is economically recycleable only when estimated returns are equal to or greater than demolition and reconstruction.

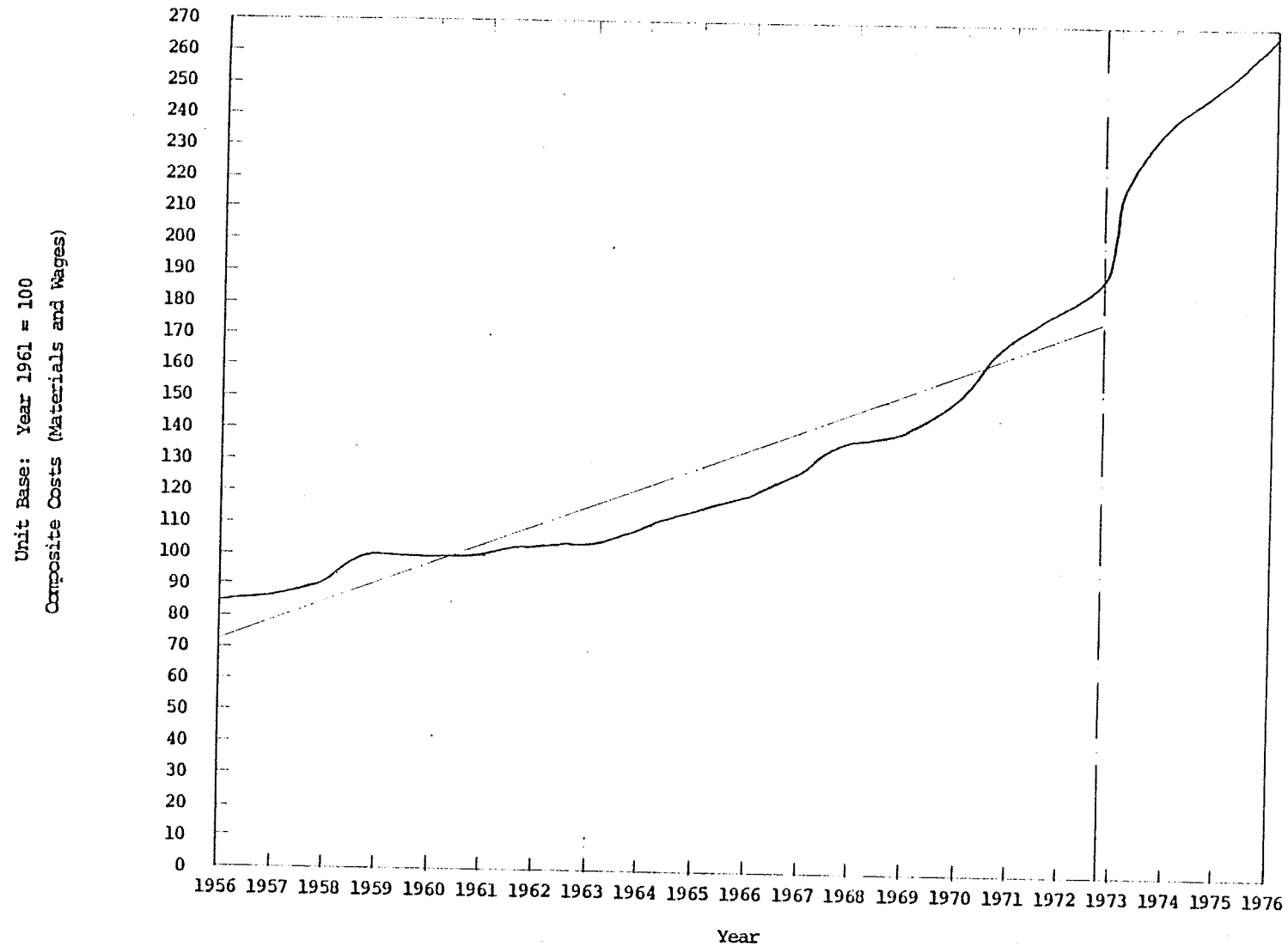
The dramatic surge towards rehabilitative programs can easily be explained by examining the graph in Figure 4 which illustrates the sharp rise in building costs following the energy crisis of 1973. Projected values are naturally speculative but the needs of a resource-demanding western technology on limited supplies support the trend towards higher costs. This shift upset the previous balance which favoured new construction, by dramatically increasing its two major components, namely, energy for plant and machinery as well as an abundant supply of new materials. On the other hand, the hike was less severe for the conversion of existing structures which were labour rather than resource-oriented, and led to a re-examination of the full extent of investment in terms of expenditure, resources, energy and the urban environment.⁶⁶ It became apparent that older buildings required less capital over shorter periods of time, resulting in significant savings in overhead costs, while they were often able to hold their own at rentals comparable to newer accommodation because of characteristics which were difficult to duplicate.⁶⁷ Construction

⁶⁶Ibid., p. 2.

⁶⁷Ron Kaufman, "The Realities of Renovation: Economics and Related Influences," in Economic Benefits of Preserving Old Buildings (Washington, D.C., The Preservation Press, 1976), pp. 149-58.

FIGURE 4

Rise in Construction Costs in Canada between 1956 and 1976 (See Appendix F)



techniques of the nineteenth century offered excellent insulation by means of load-bearing masonry walls, while small window openings afforded substantial energy savings in heating and cooling compared to the 'curtain wall' of the twentieth century.⁶⁸

Appendix G represents a survey of selected American projects and confirms that recycling falls within a range of comparative new construction costs and does not offer immediate savings. The insignificance of substantial rental differences often led to selection in terms of location and environmental quality, which favoured older buildings. Costs were found to be dependent on the proposed function as well as the extent of work and no standard formula could be applied. Generally, little structural change was necessary and costs varied from 1% to 12% of the total hard costs,⁶⁹ or less than half the financial outlay for comparative work in new construction. On the other hand, architectural, mechanical and electrical operations proved expensive, often in excess of comparable new work and could be considered the determinant factors. A recent survey of central Hamilton concluded that although new high-rise structures might increase the developer's volume of profit, it might not afford

⁶⁸ Operating cost comparisons for new and renovated space in the United States totalled \$3-90 and \$2-85 net per square foot respectively; Herbert McLaughlin, "Preservation Costs and Commercial Buildings," *ibid.*, p. 87; Giorgio Cavaglieri, "Plus Factors of Old Buildings," *ibid.*, p. 53.

⁶⁹ Baird Smith, "Adaptive Use," the Advisory Council on Historic Preservation, Washington, D.C., Report 4 (June, 1976). Discussions with local consultants revealed that soft costs, which include overhead and carrying charges, usually account for an additional 30% to 35% of the hard costs, which include actual building operations.

a higher return on equity.⁷⁰ Finally, building codes, particularly fire regulations, were generally interpreted with a favourable degree of consideration, without which the economics of adaptability would make recycling impractical.

The main concern at the governmental level has also been economic, and local authorities have, in the past, upheld the replacement of older buildings in the hope of generating additional fiscal revenues.⁷¹ Recent case studies undertaken in Canada and the United States dispute this practice as a myth pointing out that new high-rise structures required a far greater level of service. In Halifax, the replacement of older buildings led to a shortfall of 17% in the payment of public services,⁷² while the revenue paid by high-rise buildings in downtown San Francisco had actually been proportionately decreasing over the last twenty years in comparison to the older sectors of the city, contributing about 63 million dollars and drawing on about \$68 million in services.⁷³ Similarly, recycling programs, as an alternative to traditional replacement for upgrading older areas, presented favourable returns through

⁷⁰The survey was undertaken in 1973 by Diamond and Meyers, a firm of Architects in Toronto; George Galt, Investing in the Past (Heritage Canada, 1974), p. 6.

⁷¹Martin Anderson, The Federal Bulldozer (New York: McGraw-Hill Book Company, 1966), pp. 161-172.

⁷²Elizabeth Pacey, Report on Taxation in the City of Halifax (Dalhousie University, 1967).

⁷³George Galt, Investing in the Past (Heritage Canada, 1974), p. 5, citing a study undertaken by the San Francisco Bay Guardian in 1971.

property taxes. Statistics indicate that the tax base of Pioneer Square in Seattle increased by 1,000%⁷⁴ while recycling Vancouver's Gastown boosted revenue by 81% between 1971 and 1975.⁷⁵

The manner in which federal taxation can make funding more readily available to persons and institutions for recycling purposes can similarly not be ignored. The emergence of Heritage Canada as an agency for the conservation of historic structures closely resembles the pattern of the National Trust for Historic Preservation in the United States, which is presently supporting changes to the federal income tax structure in favour of the retention rather than destruction of older buildings. The inherent difference in the orientation of the two systems precludes a direct parallel. Suffice to point out that in the United States, real estate has traditionally been regarded as a source of investment and these incentives aim at equalizing the present bias towards new construction. Under such circumstances, ". . . hardly anyone would be investing . . ."⁷⁶ without tax concessions, considering the risks and long waiting periods usually associated with recycling projects, before cash returns.

⁷⁴Mrs. John W. R. Crawford, "Demands of the Future," in Economic Benefits of Preserving Old Buildings, the National Trust for Historic Preservation (Washington, D.C.: The Preservation Press, 1976), p. 164.

⁷⁵Phillips, Denhez, Galt and Brown, "Planning for Older Communities," Canadian Institute of Planners Forum (March, 1976): 5.

⁷⁶Wallace A. Wright, Jr., "Trolley Square: A Preservation Adventure in Salt Lake City," in Economic Benefits of Preserving Old Buildings, the National Trust for Historic Preservation (Washington, D.C.: The Preservation Press, 1976), p. 73.

The Historic Sites Tax Act of 1975, at present before Congress, is in direct response to this concept and provides for a five-year write-off of the costs of recycling a building recorded on the National Register.⁷⁷ Furthermore, a person would not be able to deduct the cost of demolishing a National Register Property or the undepreciated costs of such structures after demolition, and finally, the construction of a new building on a Registered Site would be subject to the straight line rather than accelerated procedure.

In Canada, the new Federal Income Tax Act of 1972 prevents the aggregation of properties in the same depreciation class by requiring each building costing \$50,000 or more to be placed in a separate category, while income derived from other sources cannot generally be offset against losses which may occur. The introduction of Recapture of Depreciation means that depreciation becomes fully taxable on sale and can no longer be postponed, while only terminal losses are deductible. In addition to income tax, a Capital Gains Tax was also inserted, based on the difference between the original cost and the selling price. While precedent indicates that concepts such as the accelerated write-off of recycling costs are feasible and have been implemented in the

⁷⁷John L. Frisbee, III, "Selected and National Trust Activities," *ibid.*, p. 103.

past,⁷⁸ advocates in support of legislative amendment should realize that in the Canadian context it serves more as a concessionary influence than an equalizing force.⁷⁹ These allowances will apparently be of significance only in combination with further tax concessions such as permitting income derived from other sources to be used in recycling projects.⁸⁰ Notwithstanding the bias nature of the accelerated write-off of depreciation, the City could justify backing these proposals, to gain the support of Federal and Provincial policy as a means of directing private funding to initiate recycling programs, not only to upgrade so-called deteriorating downtown areas, but also as an urban resource.

⁷⁸Discussions with the City of Winnipeg's Department of Environmental Planning revealed that the Federal Government has often acted favourably through Provincial governments in response to proposals at the municipal level, particularly when they displayed comprehensive demands, say to upgrade a deteriorating area, backed by public support. The provision to recycle older structures has now been removed by amendment to the National Housing Act (NHA) and funding at present operates more on a 'hand-out' basis than policy. Pressure from local institutions through Provincial Governments to the federal level is now having some effect and a new policy strongly orientated towards rehabilitation will probably emerge in the near future. Existing programs are of a specific nature and cannot usually be adapted.

⁷⁹The normal write-off period for a masonry warehouse structure is 5% or about 20 years.

⁸⁰Discussions with Aronovitch and Leipsic, property consultants, Winnipeg. Similar concessions were allowed under the old Income Tax Act.

The next area of concern deals with the manner in which the City can make a direct contribution within the framework of the existing tax base. Tax Increment Financing represents a net gain to the municipal authority and requires little or no procedural or legislative modification.⁸¹ It operates basically when an urban area declines for some reason or another and multiplier effects set in, causing the tax base to decline as owners are able to pay less and less with the increasing levels of vacancy. While the societal burden increases on the one hand, public investment and obligations such as services, lighting, etc., have to be maintained on the other, and the area eventually becomes a net loss to the city. Tax Increment Financing attempts to stop this downward trend through public assistance and once the district starts to improve and the property tax base is increased, the additional funds are paid into a special account which is used for reinvestment back into that particular location. This concept can easily form part and parcel of the /Historic/ District Zoning ordinance.

Another area of neglect concerns the availability of mortgage financing where some concession is needed to balance the present bias towards new construction. An examination of programs reveals the relative ease in obtaining both funding and guarantees for new work at public and private levels, while the same institutions generally shy away from recycling programs or make less funds

⁸¹William E. Seline, "Tax Increment Financing: A Key Preservation Tool," in Economics of Preserving Old Buildings, the National Trust for Historic Preservation (Washington, D.C.: The Preservation Press, 1976), pp. 49-50.

available with greater restrictions. Governmental policy at all three levels should aim to at least equalize this situation through direct or indirect assistance by either providing or underwriting finance.

4.3 Urban Legislation

At present, legislation aims primarily at protecting the rights of the individual and not the urban environment. Land bestows wealth and status on those who control it and defines the basic relationships between property owners, labour and production. It also articulates the institutional conditions which regulate its use and the difficulty of legislative intervention must be perceived against this background.

Older buildings are usually threatened when the land on which they are situated becomes too valuable for their continued existence while their location is not valuable enough to permit occupancy by desirable tenants. This situation usually occurs as a result of legislation which is bound by outdated regulations and does not lend itself to changes in response to new demands. At present, change relates more to the modification of past conditions than to the acknowledgement of an emerging set of entirely new standards. There is no avoiding the fact that the complexity of preservation and recycling programs demands a far greater degree of governmental participation, requiring the backing of legislation aimed at generating response from the private sector.



A comparison of North American practices indicates that the United States took a leading role in its concern for legislation in pursuit of preservation and recycling procedures.⁸² Appendix H illustrates how programs have been moving towards federally-supported, district-oriented projects where success can be measured largely in terms of the degree of co-operation between the tri-level agencies on the one hand, namely, the federal, state and local governments, and the private sector on the other. Operations are being assessed in terms of expanded benefits to the community rather than extensions of history books. Today, more than half of the States allow local governments to zone groups of structures as historic areas, subject to special conditions.⁸³ Central to these issues have been the problems associated with the assembly of inventory, particularly in regard to "hold-out" operators and much of the present legislation has been directed towards this concern.

In Canada, preservation and recycling concepts are relatively new and recent studies indicate the emergence of a pattern in pursuit of American precedent. Table 1 illustrates the effect of existing legislation in protecting historic environments. Its significance does not extend beyond the importance that both people and governments have become aware and intend investigating aspects which were previously ignored. Intervention in the ownership of private property has traditionally been politically unacceptable and most legislation

⁸²The paper suggests that the degree of detail should increase from federal through provincial to local governments, under a co-ordinated program, Heritage Canada, Brown Paper on Legislation (July 1974), p. 7.

⁸³Lawson B. Knott, Jr., "The Impact of Historic Preservation on Development and Land Use," Urban Land (July/August 1975): 5-6.

TABLE 1
Heritage Legislation at Provincial Level

	Recommended by Unesco	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan
Are clear criteria given for the definition of Heritage Property	Silent	No	No	No	No	No	No	No	No	No	No
Must notice be given of impending demolition of unregistered Heritage Property	Silent	No	Indian Archio- logical site only	No	No	No	No	No	No	No	Yes
Is Government under any obligation to attempt to protect unregistered Heritage Property	Yes	No	No	No	No	Unclear	No	No	No	No	Unclear
Can demolition of unclassified building be delayed pending study	Silent	Yes	Yes	No	No	No	No	Archiological Sites only	No	Yes: by Registration	Yes
Can definitive protection against demolition be given to a building (short of expropriation)	Yes	Yes	Yes	Yes	Yes	Yes	No	Archiological Sites only	Yes	Yes	Yes
Is radius around monument protected	Yes	No	No	No	No	No	No	No	No	Yes	No
Can Government decisions on designation be appealed to higher authority or statute	Silent	Temp. stop order only	No	No	No	No	No	No	No	No	No
Is the definitive preservation of districts specifically foreseen	Yes	Law pro- tects "sites"	Law pro- tects "sites"	Law pro- tects "sites"	Law pro- tects "sites"	Law protects "sites"	No	No	Law protects "sites"	Yes	Law protects "sites"
Can plaques be posted without owner's consent	Silent	Yes	Yes	Yes	No	Only when Designated	No	No	Yes	Yes	Unclear
Can maintenance of Heritage Property be enforced	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Unclear

TABLE 1 (Continued)

	Recommended by Unesco	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan
Can Heritage Sites be inspected	Yes	Yes	When Threatened	During Work Only	No	Archiological Sites Only	No	Yes	Archiological Sites Only	Yes	Unclear
Does Government have right of first re- fusal on sale of Heritage Building	Silent	Yes	No	No	No	No	No	No	No	Yes	"Objects" Only
Can Heritage proper- ties be exempted from building codes	Silent	Yes	No	No	No	No	No	No	No	No	No
Can illegally altered Heritage buildings be re- stored at owner's expense	Yes	Yes	Subsi- dized buildings only	Subsi- dized build- ings only	No	No	No	Yes	No	Yes	Yes
What is the maximum penalty for illegal demolition	Silent	\$5000 + 6 mo. + damages	\$1000 + 6 mo.	\$100	\$100 + 30 days	\$1000 + 3 mo.	None	\$10,000 + 1 year	\$1000	\$5000	\$5000 + 6 mo. + damages

Source: R. A. J. Phillips, Marc Denhez, George Galt and Gregory Brown, "Planning for Older Communities," Canadian Institute of Planners Forum (March 1976): 10-11.

has naturally been limited to the preservation of individual sites under public control. Recent examples in British Columbia and Ontario have gone beyond this concept to prove that success lies in the synchronized co-operation between tri-level governmental entities and the private sector, in response to the needs of the local communities to benefit, firstly, the people who live and work there, secondly, the remainder of the city, and finally, the visitors.⁸⁴

Building codes represent another area for reform, although their impact is far less severe. By-laws, particularly fire, parking and open space requirements, are clearly aimed at new structures and cannot rigidly be imposed upon recycling projects where no rule-of-thumb exists. In practice, these regulations are usually modified by negotiating according to 'unwritten' codes. In the past, this problem has often been overcome by applying /Historic/ District Zoning principles so that each area or individual structure receives special recognition in terms of its particular merit.

⁸⁴Ibid., p. 15.

4.4 Innovative Techniques

The power of local government cannot be overlooked and includes land-use controls, choice of districts for consideration,⁸⁵ direct or indirect funding, amendments or modification to urban legislation and property tax, as well as its influence over the quality of any project by means of the assistance it is able to provide through its resources.⁸⁶ Innovative programs cannot easily occur without its support and a redefinition of function coupled with a restructuring of mechanisms to concentrate on role rather than methods is a prerequisite to meaningful change.⁸⁷

⁸⁵The City of Winnipeg Act refers to the preservation of a 'site' rather than a 'district' and although both allow whole areas to be set aside for consideration, the latter contains dynamics within its legislative procedure which are not specifically foreseen within the framework of the former; based on correspondence with Marc Denhez, legal representative for Heritage Canada, Ottawa. Section 488 of the Act provides for the enforcement of 'look-alike' conditions within certain areas of the City, but controls are limited to the erection of new structures and additions, with no provision for existing buildings. The study area, which derives its character by aggregation and where no warehouses can generally justify historic preservation on individual merit, has not been included.

⁸⁶Stephen A. Kliment, ed., Neighborhood Conservation (New York: Watson-Guptill Publications, 1975), pp. 11/2-11/7.

⁸⁷If local governments cannot perform an innovative function, it is doubtful whether they are worth retaining; "Manplan: Local Government," Architectural Review 148 (July 1970): 1-62.

It should now be apparent that zoning practices have failed in the control of the urban environment. The usual result of its inflexible nature is the uneven distribution of land potential when entire areas are planned as single entities on the assumption that the pattern will resemble a rational structure, closely related to desirable market conditions. This superimposed pattern determines the land value, and in practice massive shifts occur in response to the real demands of urbanization. Reform, directed towards the greater use of land potential on the one hand, and the needs of the community and environment on the other, is long overdue. Two innovative techniques have recently emerged, namely, /Historic/ District Zoning and the Transfer of Development Rights /TDR/, the essential difference being that whereas the owner suffers a loss of potential rights with the former, when the city imposes a freeze on vertical or horizontal expansion, the latter aims to compensate for any loss resulting from such restriction. Although both systems involve significant participation by local authorities, TDR, in addition, requires modification to legislative procedure.

/Historic/ District Zoning works within the framework of existing practices and aims at the preservation and rehabilitation of deteriorating historic areas by treating the selected district as a special package removed from the remainder of the city.⁸⁸ The whole area is subject to the same regulations to ensure not only that one owner does not unjustly benefit from another's upgrading, but also that the character and standard emerges from the

⁸⁸ See Appendix J.

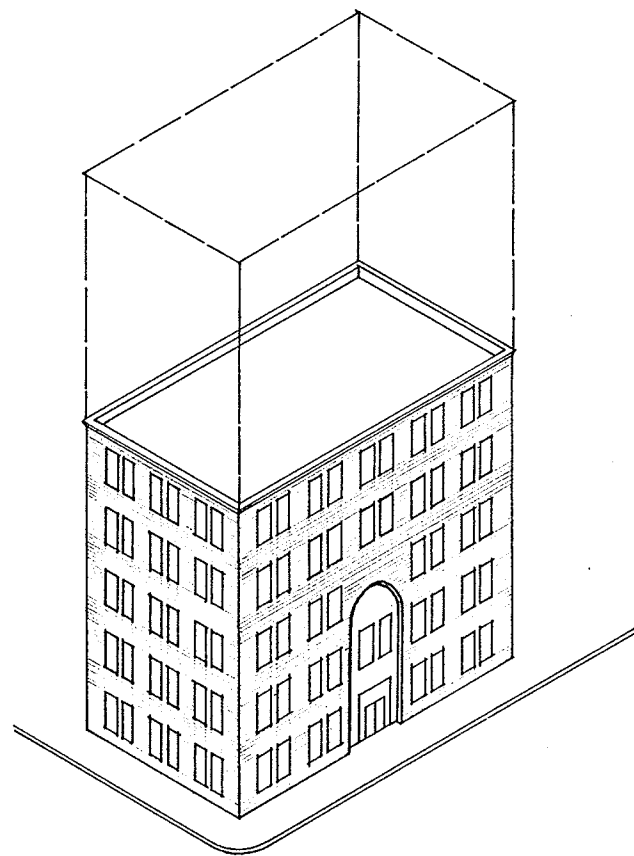
aggregation of all the buildings.⁸⁹ Although approval must be obtained prior to altering the exterior of any structure, the interior is subject only to the normal and often modified set of building codes to facilitate occupation by present-day functions.⁹⁰ Precedent indicates that most North American programs at the district level have been implemented through this principle, although the rigidity of its nature illustrates the need for alternatives.⁹¹

⁸⁹John Murphy, "The Special Nature of Historic Area Zoning," Urban Land (July/August 1975): 9-13.

⁹⁰Incentives in the United States often included a tax bonus, public subsidies or loans as well as programs designed to generate public response; The Neighborhood Conference of New York, Neighborhood Conservation (New York: Watson-Guption Publications, 1975), pp. 111/1-111/121.

⁹¹Gastown and Chinatown in Vancouver were implemented through Historic District Zoning principles and represent one of the best Canadian examples of recycling as an urban resource; Vancouver's Heritage Advisory Committee, Vancouver's Heritage: Twenty-Two Buildings and Two Historic Areas (Vancouver: City Planning Department, 1974); Restoration Report: A Case for Renewed Life in the Old City (Vancouver: City Planning Department, 1974).

The Transfer of Development Rights (TDR) represents a better solution in the longer term and permits the owner to benefit from his older building without destroying it, by selling the potential to which the building cannot be adapted, to developers who could use the gain to erect larger structures elsewhere.⁹² The owner would continue to exercise all the rights he previously enjoyed except those specifically separated. Eliminating development potential from the property decreases the value and extinguishes further speculative interest or economic pressure for replacement, while the potential for greater density produces the incentive for the purchase of these rights. TDR must, therefore, be viewed as an extension to, rather than replacement of existing zoning, by functioning as a third dimension through the redistribution of developable rights in response to changes in market demands, and should alleviate some of the more confiscatory aspects of present practices, serving to facilitate the trade-offs required in overcoming the economic imbalances resulting from preconceived



⁹²John J. Costonis, Space Adrift (University of Illinois Press, 1974).

designations.⁹³ Central to the concept is the separation of the rights from a parcel of land as a quantifiable and transferable quality of ownership. In short, the concept involves little more than the recognition of traditional legislation governing property ownership.⁹⁴

4.5 Tourism

Winnipeg's tourist potential has, to date, not been fully exploited and although it does not display the colourful background of certain other North American cities, it has the advantage of a central east-west location along an existing tourist path coupled with a history shared by no other Canadian city as a gateway to the developing West, backed by an abundant supply of prestige warehouse structures reflecting its earlier role. Precedent suggests a direct relationship between environmental heritage and the generation of tourist dollars, which should be seen as an important consideration in any major recycling proposal. Although accurate projections are by nature largely speculative, most North American experiences indicate that the subsequent increase in urban revenue is significant.

⁹³ Although the concept has been implemented in both Canada and the United States, /U.S./ Assembly Bill 3192, at present about one-third of the way to becoming prescribed law, will undoubtedly have the greatest impact. The "Municipal Development Rights Act" of the State of New Jersey will provide the State's 567 municipalities, located in the heart of one of the world's most urbanized areas, with the mandate to incorporate TDR into their planning control activities; paper prepared by John Vincent Helb and J. Mark Reifer, Division of Legislative Information and Research, New Jersey, The Legislative Development and Consideration of the New Jersey TDR Proposal, Assembly Bill 3192 (1975).

⁹⁴ Ibid., p. 2.

A recent survey of the behavioural habits among Canadian tourists at the national level confirmed that they were concerned mainly with visits to historical and cultural sites which accounted for some \$517 million, while fishing, the next most popular activity amounted to about half of this figure.⁹⁵ Similar studies in Winnipeg⁹⁶ and Nova Scotia,⁹⁷ which included visitors at the international level, revealed an even greater degree of interest in buildings of historic merit. Cultural visits among Canadians now account for more spending than leisure activities, while in the United States, it is ranked second only to family visiting. Further studies indicate that spin-off multipliers from tourist revenues generate from \$1.5 to \$2.5 in related activities for every \$1 spent, or expressed in another way, if a community could maintain an average of 24 tourists a day for a period of one year, it would be comparable to an additional industry with a payroll of \$100,000 per annum.⁹⁸

New Orleans was one of the first North American cities to take advantage of this phenomena by recycling the Vieux Carre, its historic French quarter and

⁹⁵The survey was undertaken by the Canadian Travel Survey in 1971 and excluded all non-Canadian revenue. See Appendix K.

⁹⁶The surveys were undertaken over a period of three years ending in 1975 and recorded major interests in historical sites of 62%, 55% and 52% respectively for each year; Tourist Reception Centre Study 1975, Report #184, Department of Tourism, Recreation and Cultural Affairs, Winnipeg, March 1976.

⁹⁷The survey indicated that about 33% of all tourists spending related directly to visiting places of historic interest; R. A. J. Phillips et al., "Planning for Older Communities," Canadian Institute of Planners Forum (March 1974): 7.

⁹⁸Ibid.

was closely followed by similar projects in other cities, the most notable of which occurred in Savannah, Georgia. At present, the annual tourist revenue of the former exceeds \$200 million and is growing while that of the latter increased by 400% from \$10 million per annum in 1955, one year before the recycling program commenced, to \$40 million six years later and included 900 of the 1,100 buildings on the historic inventory.⁹⁹

⁹⁹Ibid., pp. 7-8.

5.0 PROGRAM FORMULATION

The program for the urban design illustrated in Sheets D1 to D5 was based on the precedent of five selected case studies which collectively accounted for both feasibility and market demand of the proposed activities. These studies generally emphasized urban design, which then emerged as the central theme around various policy statements.

The first of these reports,¹⁰⁰ prepared for the federal government, represented an ambitious study aimed at demonstrating the potential of federal intervention in the revitalization of deteriorating, downtown areas. By initiating the first move, they could generate large investments within the private sector. The proposal included 'spines' of weather-protected, pedestrian malls linking recycled and new developments with various downtown activities. Multiplier effects set in when the new population and support facilities reactivated, then changed the nature of the area.

¹⁰⁰The study area was bounded by Pacific Avenue on the north, Lombard Avenue on the south, the Red River and Main Street to the east and west respectively: General Urban Systems Corporation, Urbex Winnipeg: Preliminary Report (Ministry of State for Urban Affairs, March 1974).

The purpose of the second report,¹⁰¹ prepared for the Central Housing and Mortgage Corporation, was to examine the convertibility of Winnipeg's central warehouse accommodation to residential use, thereby transforming a wasting asset into a net addition to the housing stock without involving new land and services. The study concluded that such conversion was both desirable and feasible and that demand would increase when the savings which this type of living could offer, became apparent in the face of the spiralling costs of a suburban location.

The purpose of the third study¹⁰² was to unite existing urban functions by means of a comprehensive urban design incorporating recycled warehouses and new development and included cultural, residential and commercial activities. The "Urban Agora" which resulted would benefit the whole community.

The final two reports were concerned with the warehouse district which once formed the heart of the City's business area, located in the vicinity of Albert Street. The first,¹⁰³ which outlined methods of public and private

¹⁰¹The study area was bounded by Logan Avenue, Notre Dame Avenue, Portage Avenue East, the Red River and Isabel Street to the north, south, east and west respectively: Damas and Smith Limited, Warehouse Conversion Study: Preliminary Report (Winnipeg: September 1974).

¹⁰²The project centred on Bannatyne Avenue and was bounded by Market Avenue, McDermot Avenue, the Red River and Main Street to the north, south, east and west respectively: D. Nicolson, Master's Thesis in Architecture (Winnipeg: University of Manitoba, 1975).

¹⁰³The study area was located west of Main Street along Albert Street, bounded by William Avenue, Notre Dame, Main Street and King Street to the north, south, east and west respectively: Department of Environmental Planning, Historic Winnipeg Restoration Study (Winnipeg: City of Winnipeg, 1974).

co-operation for the rejuvenation of this somewhat stagnated area, was prepared by the City of Winnipeg. Moderate public funding would provide the catalyst for private incentive to upgrade the area into an exciting, pedestrian-orientated shopping district. The second¹⁰⁴ aimed at transforming this historic district into a diversified, active shopping area by creating spinal malls centering on a weather-protected "Galeria" which linked Portage Avenue and Main Street.

The characteristics of these five case studies were similar in many respects and predominant features have been listed under the following headings:¹⁰⁵

Economic

- Figures indicated that the warehouses could be bought and recycled at costs significantly below comparable rates of new construction and were, therefore, able to offer cheaper rental structures without the need for new land and services.
- Public funding and guarantees would attract the private sector once the long-term benefits became apparent.
- Governmental intervention, including the purchase of certain land, the removal of railway tracks, the construction of a covered mall and partial liability for new work, would provide the stimulus for private incentive to complete and expand the program, eventually leading to the revitalization of the entire area.

¹⁰⁴The same study area was used for both of these final reports: C. Brook, Master's Thesis in Architecture (Winnipeg: University of Manitoba, 1975).

¹⁰⁵These characteristics are not common to every report.

- The City would gain greater fiscal revenue through its tax base while the warehouse owners would enjoy the benefits of increased rental and selling values when an expanded population was attracted into the area.

Political

- Political considerations were concerned mainly with the mechanics of tri-level governmental organization and funding.
- Only one report envisaged the City of Winnipeg as the co-ordinating authority. Two reports were prepared for federal agencies.

Social

- Generally, the high vacancy rates and absence of residential activity minimized social disruption. The action and vitality of downtown living was envisaged as appealing to both old and young alike, while the character of warehouse accommodation coupled with the spiralling costs of suburban living would increase the demand for recycled structures.
- Housing accommodation was usually allocated in response to adjoining functions where cultural activities attracted artists and workshops, while proximity to the CBD drew young executives in more desirable locations and senior citizens in other areas. Family groups related mainly to the proximity of open space and schools, while lower income groups were often located in relation to sources of employment or noisy streets.

Legislative

- Proposals occurred largely within the framework of existing urban legislation.
- Precedent and discussions with City Authorities illustrated that zoning and building regulations, particularly parking and fire codes, could be modified to permit redevelopment.

Urban Design

- The physical designs represented the medium through which programs occurred by providing the central spine for the unification of surrounding urban activities.
- These adjoining functions, particularly the cultural facilities, the CBD and the Red River to the north, south and east respectively, were seen to exert strong influences on the diverse nature of the development.
- Multiple-use proposals for recycled buildings generally included retail facilities at ground and basement levels in closest proximity to the pedestrian mall, with office and commercial activities on intermediate floors and residential accommodation at the uppermost levels.
- Programs included new structures to not only fill voids but also stimulate recycling projects. These new buildings generally included tourist, entertainment, recreational, parking and residential accommodation, strategically located to attract population into the area for both day and night activities throughout all seasons of the year.

The urban design program for this hypothesis, as outlined in Table 2 and illustrated on Design Sheets Numbers D1, D2, D3, D4 and D5, was based entirely on the precedent of these five studies. Relevant details are expanded under specific headings.

TABLE 2

Urban Design Program

<u>Building</u>	<u>Type</u>	<u>Proposed Function</u>
Recycled Buildings	Warehouses	Retail, Office/Commercial, Residential
New Structures	Infill	Retail, Office/Commercial, Residential, Parking
	Tourist/Fun Centre	Casino, Hotel, Tourist Centre, Restaurants, Cinemas, General Entertainment
	Recreation Centre	Skating Rink, Indoor Sports, etc.
	Water Sports	Marina, River Boat Excursions, Tie-up and Boat Rentals, River Park System
Recycled and New Structures	Common Features	Covered Pedestrian Mall, Public Spaces

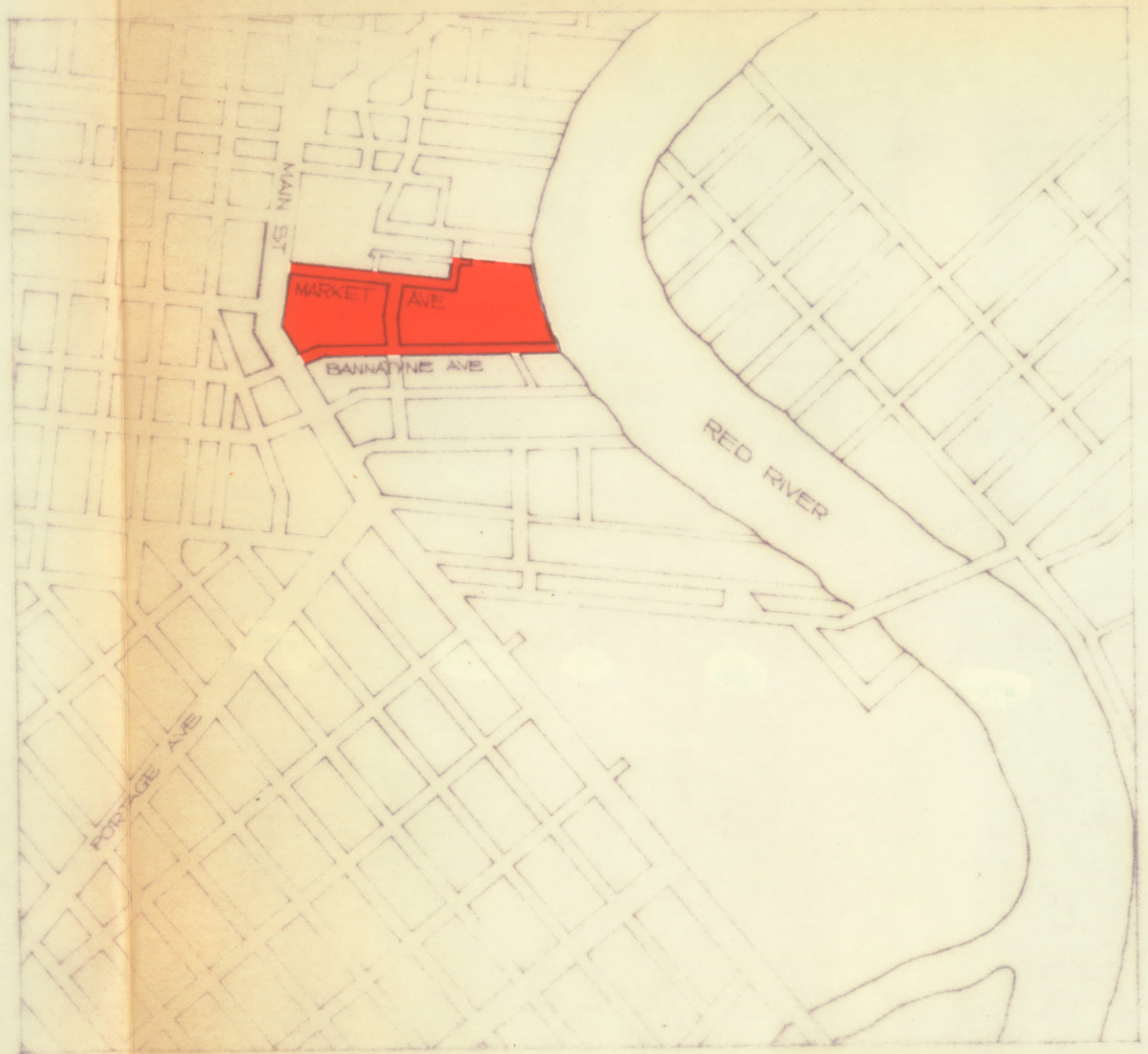
The area on the east of Main Street was selected for study because it directly represented the concerns of three out of the five studies, while the actual site between Bannatyne and Market Avenues was chosen because of its adaptability to include specific aspects of each report with minimum conflict. The redevelopment of the railway track as a pedestrian mall rather than the

modification of an existing vehicular street was seen as being less severe on the circulation system, while the generally high vacancy rates and low demand, coupled with the availability of cheap, good land in close proximity to downtown Winnipeg, clearly defined boundaries and absence of residential activity, served to both reduce the impact and spread of the proposed development as well as to simplify the process of urban analysis. A more complex site would not permit the degree of penetration afforded by this study area.

No attempt has been made to phase this design proposal for implementation within predetermined periods of time, which seemed to be more applicable to new construction. Full advantage was instead taken by the very existence of the structures, which afforded the advantage of recycling over far longer periods of time in response to demand, once the initial pattern had been structured by the co-ordinating entities.

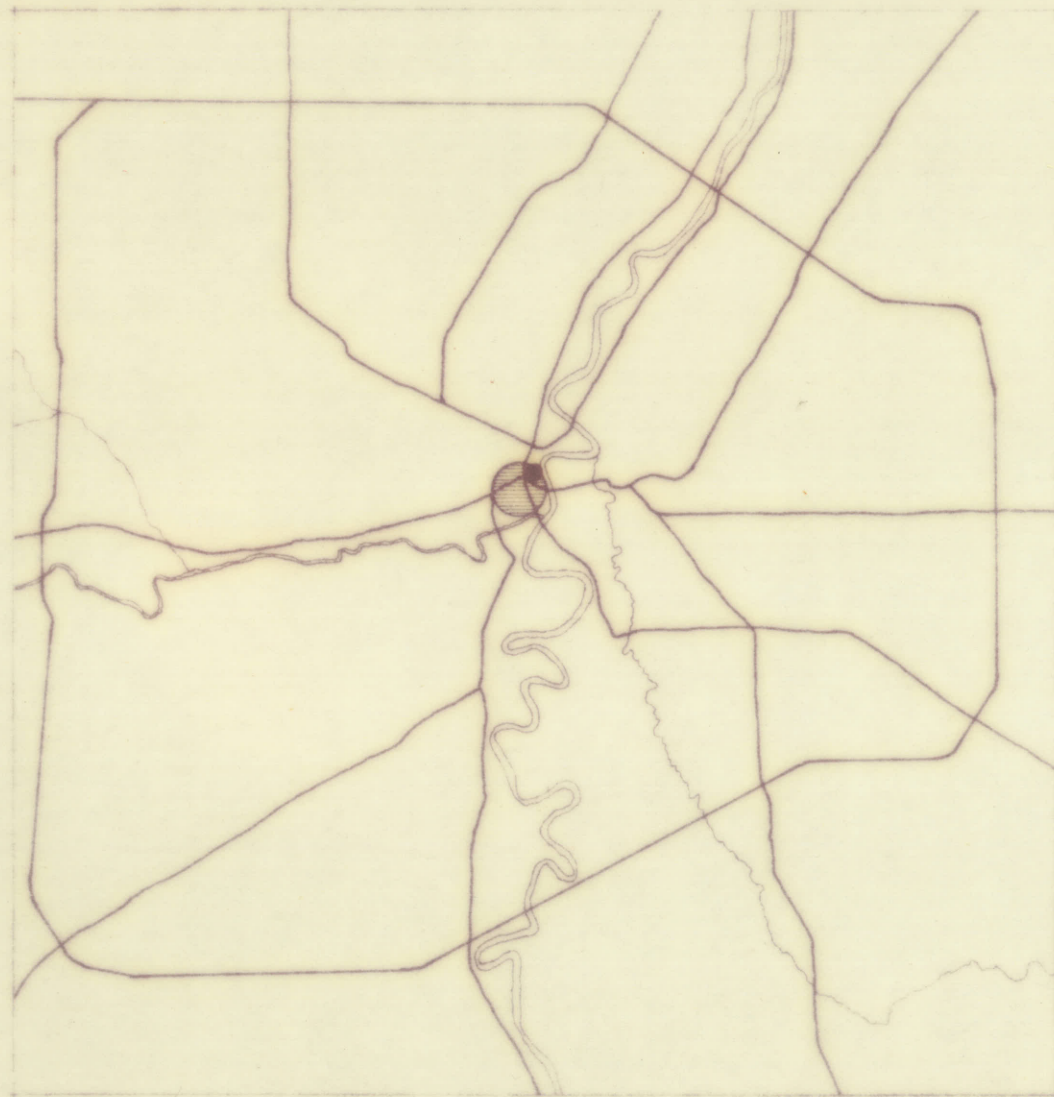
WAREHOUSE MALL.
A PEDESTRIAN STREET
FOR WINNIPEG.

LOCATION OF STUDY AREA.



LOCATION MAP

legend
study area



LOCATION MAP

legend

- downtown
- study area



LOCATION MAP

legend

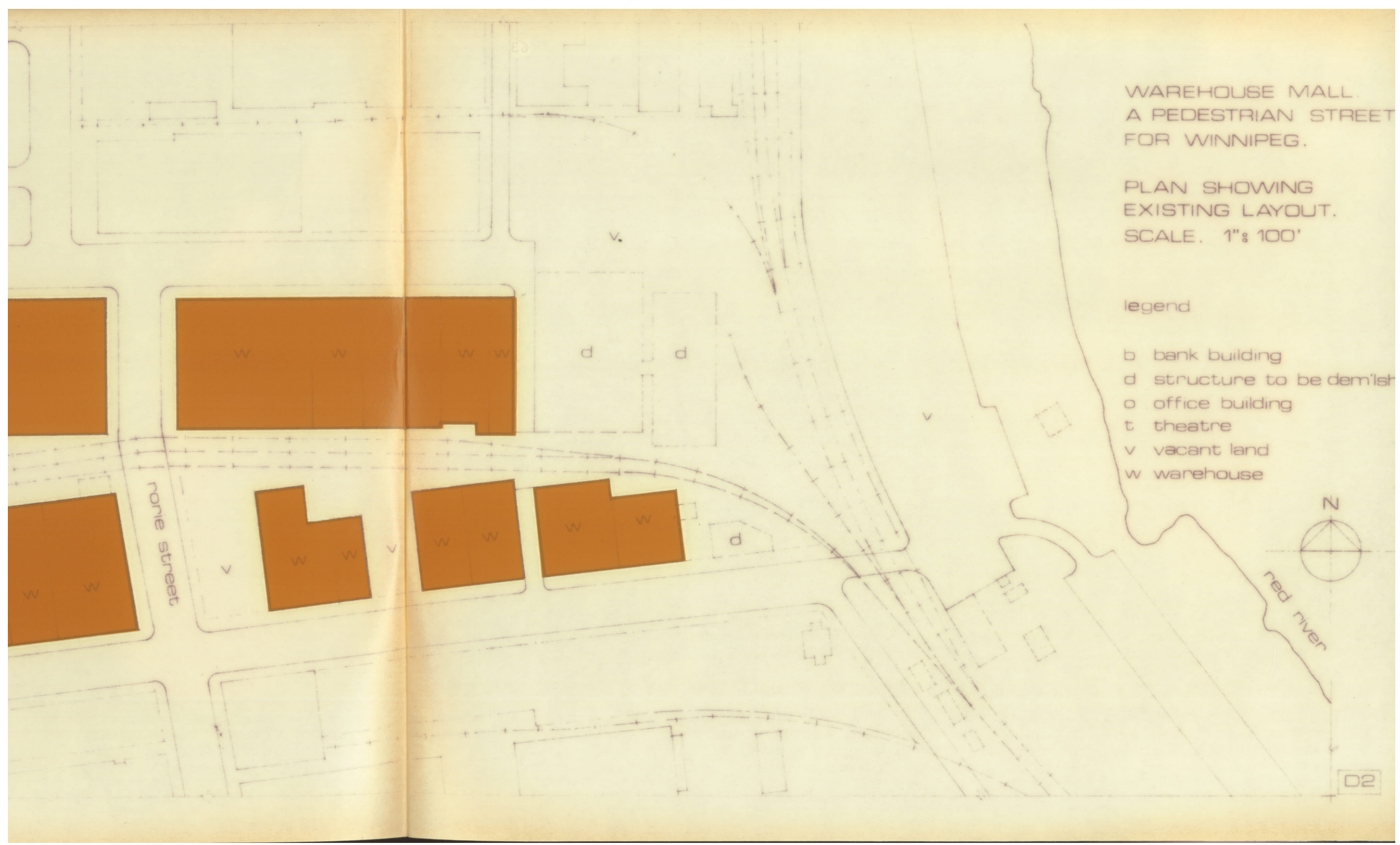
- study area

WAREHOUSE MALL.
A PEDESTRIAN STREET
FOR WINNIPEG.

PLAN SHOWING
EXISTING LAYOUT.
SCALE. 1" = 100'

legend

- b bank building
- d structure to be dem'ish
- o office building
- t theatre
- v vacant land
- w warehouse



main street

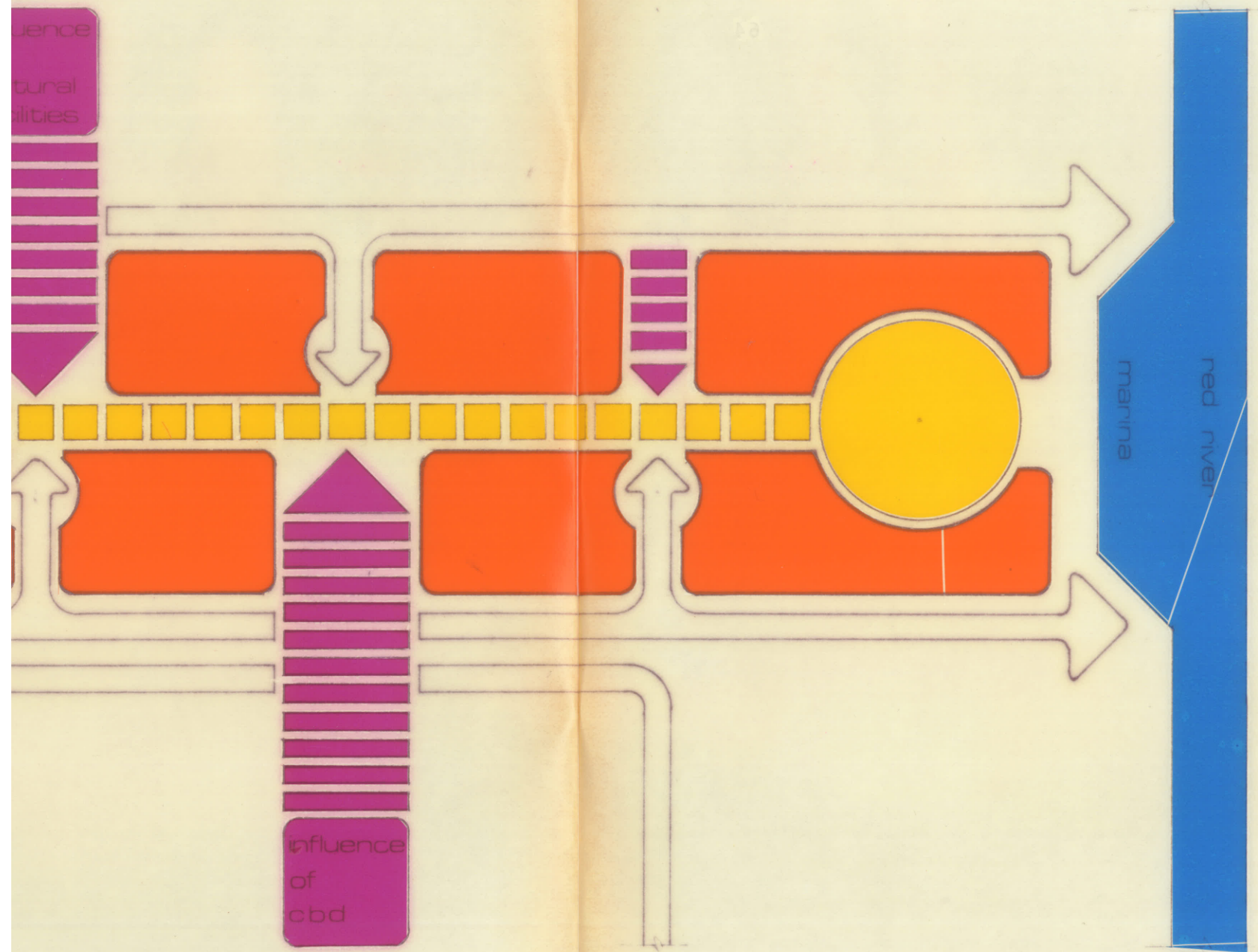
market ave

exist. spur

norie street

bannatyne ave

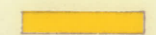
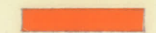


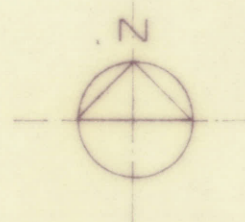


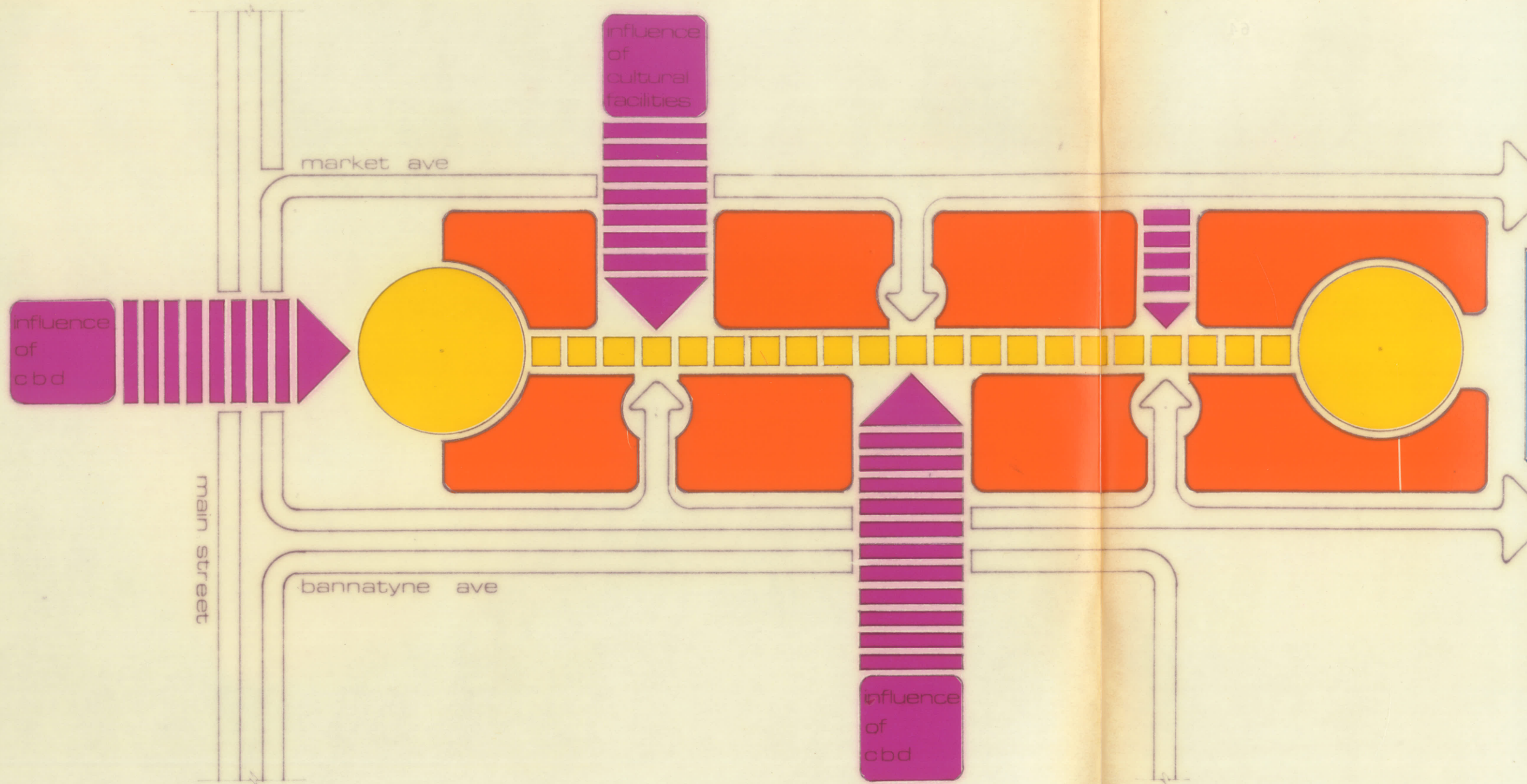
WAREHOUSE MALL. A PEDESTRIAN STREET FOR WINNIPEG.

DIAGRAMMATIC LAYOUT.

legend

-  covered mall
-  exist, rec'd or infill structure
-  access to parking



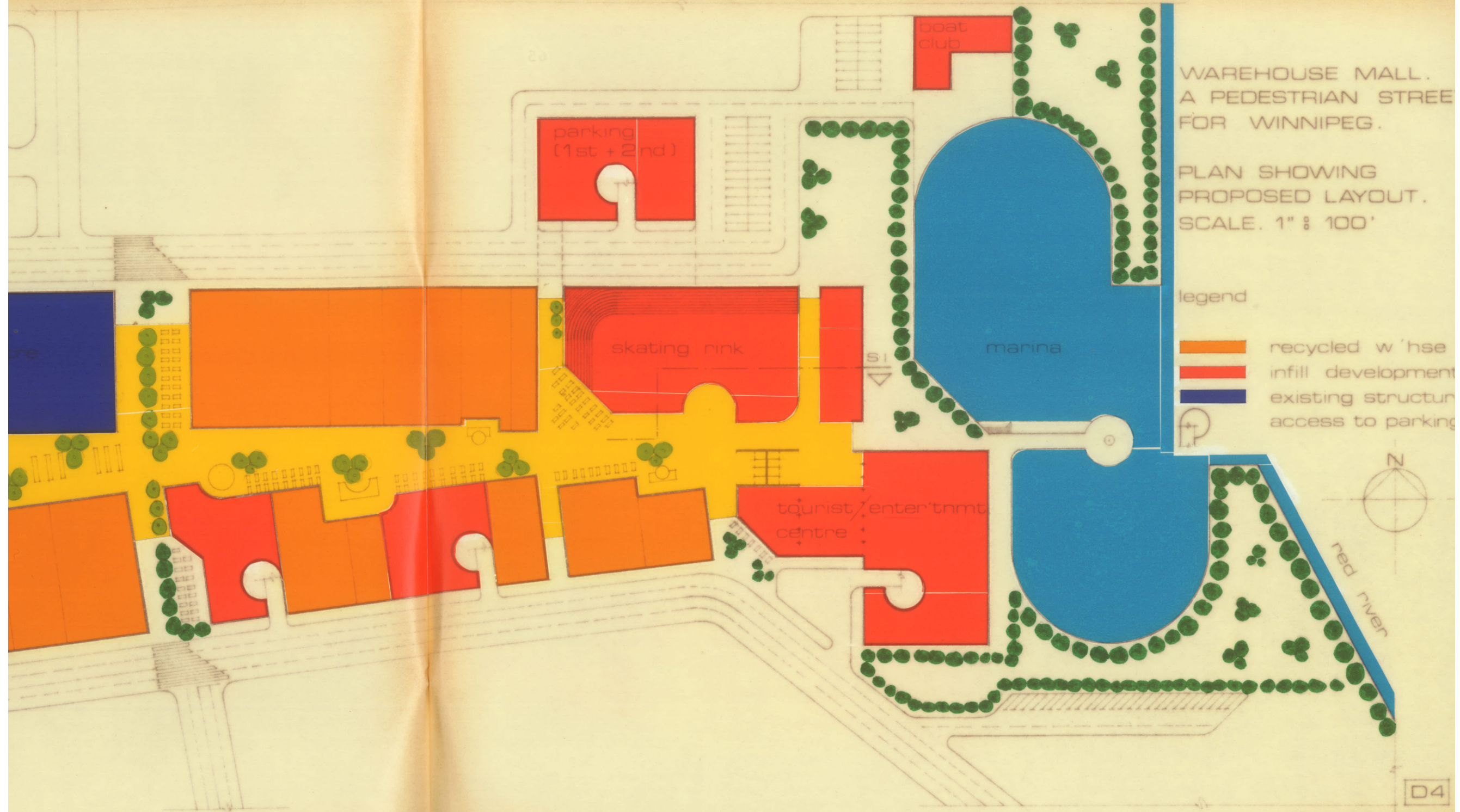


WAREHOUSE MALL.
A PEDESTRIAN STREET
FOR WINNIPEG.

PLAN SHOWING
PROPOSED LAYOUT.
SCALE. 1" = 100'

legend

- recycled w'hse
- infill development
- existing structure
- access to parking





market ave

theatre

theatre

parking
(1st + 2nd)

skating rink

plazza

covered
mall

office

bank

main street

bannatyne ave

tennis
cen

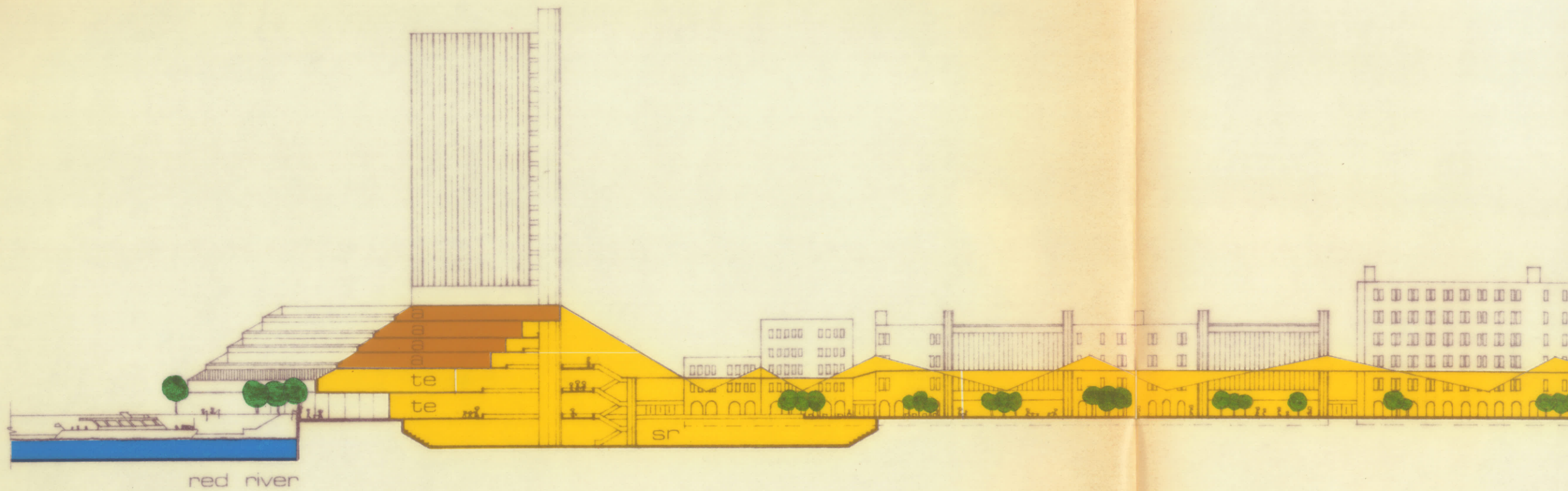
WAREHOUSE MALL.
A PEDESTRIAN STREET
FOR WINNIPEG.

SECTION S1, THROUGH MALL
LOOKING SOUTH.
SCALE. 1" = 100'



legend

- covered mall
- a apartments (hotel above)
- sr skating rink and recreation
- te tourist and entertainment



SECTION S1

6.0 ASSESSMENT

This evaluation attempts to measure the validity of statements made in the previous section by examining specific aspects under present-day conditions in Winnipeg. The study area was found to display many of the properties usually associated with warehouse structures in deteriorating downtown areas as outlined in the background analysis. Activities were generally attracted by the low rental structure which varied from \$0-55 to \$1-60 per square foot.¹⁰⁶ Manufacturing and wholesale functions predominated, followed by retail and storage facilities. The buildings contained high vacancy rates averaging 36.37%.¹⁰⁷

6.1 Warehouse Survey

The information shown on the matrix in Appendix P is based on both a survey and discussion with the respective owners within the warehouse inventory in an attempt to establish their intentions. Generally, they could be categorized into two groups. The first represented the majority, namely, 55%, where owners were prepared to sell for an average rate of \$4.95 per square foot, ranging from a minimum of \$4.50 to a maximum of \$6.00 per square foot. The second represented 18% of the sample where the selling value was based on the

¹⁰⁶ See Appendices L, M and N.

¹⁰⁷ See Appendix N.

cost of relocation, averaging \$12.13 per square foot and ranging from \$11.20 to \$13.19 per square foot.

Of the remaining 27%, one owner did not reply,¹⁰⁸ another failed to indicate his selling price and the third wished to remain at his present location but was prepared to co-operate should the area be upgraded.¹⁰⁹ Eighteen percent of the proprietors were prepared to improve their properties and one indicated that he would spend \$25.00 per square foot in renovation costs.¹¹⁰ No operation was considered so vital that it could not be relocated; neither was proximity to the railway spur of significant importance. Warehouse owners were only moderately concerned with the inclusion of the proposed pedestrian mall, public subsidies and concessions, while no one expressed any concern for the historic value of his building to the community. Sixty-four percent of the structures were occupied partially or fully by their respective owners.

¹⁰⁸The owner of 115/117 Bannatyne Avenue did not respond to the survey. Although these two buildings have been unoccupied for many years, discussions with realty consultants indicated that an offer at current market value, or about \$5.00 per square foot, was at present being considered.

¹⁰⁹The Canadian Imperial Bank of Commerce at 441 Main Street was considered essential to the proposed development due to the nature of both the building and the operation.

¹¹⁰This amount would adequately cover recycling costs to commercial and retail uses but was considered insufficient to provide for conversion to residential accommodation.

One factor of particular significance was the apparent absence of 'hold-out' operators which has often had adverse effects on the development of an area because of the difficulty of assembling inventory, particularly when a single operator owns large amounts of property.

6.2 Economic Considerations

The economic assessment generally contradicts the hypothesis that recycling involves significant financial savings,¹¹¹ which was based largely on the belief that dramatic increases in construction costs, as illustrated in Figure 4, would eventually lead to a break-even point where re-use would actually involve net savings over new buildings. This situation can be dismissed largely as a myth and would only occur if the market value of the property remained constant.¹¹² In reality, the adverse effect of increased construction costs on new buildings, concessions and public subsidies, increase demand on a somewhat limited supply of good warehouses which naturally raises their commercial value. This inflation has the effect of moving the break-even point upward along the scale, thus neutralizing any advantages which would otherwise have favoured recycling. While the City anxiously covets the

¹¹¹See also, Damas and Smith Limited, Warehouse Conversion Study: Preliminary Report (Winnipeg: September 1974), pp. 85-89; W. P. Thompson, "Old Buildings can be Revitalized," Winnipeg Tribune, March 25, 1975, p. 7.

¹¹²In Winnipeg, this is clearly not the case and the value of warehouse accommodation in more central downtown locations has increased from about \$2.50 per square foot to the present-day rate in excess of \$8.00 per square foot over a period of approximately 10 years; *ibid.*, p. 34; Discussions with Aronovitch and Leipsic, Property Consultants, Winnipeg.

potential increase in its property tax base, it should not encourage public programs beyond merely stimulating rehabilitative projects, for the effect of tipping the scales to exceed the break-even point in favour of preservation will further inflate the value of local warehouse structures.

The generally accepted proposal to locate residential accommodation at the highest levels as illustrated in the design presented serious problems.¹¹³ Firstly, the warehouses could not easily be adapted to conform with the stringent building codes which this use demanded, particularly fire and parking regulations. Secondly, these conditions would be superimposed over less critical lower levels where the same degree of safety was not required and finally, there was no significant saving over new construction.¹¹⁴ A more feasible approach would be to either limit conversion to an entire warehouse ideally suited to residential adaptability, or construct new apartments as infill development on existing vacant land.

¹¹³Discussions with the Department of Environmental Planning, Winnipeg and various downtown property consultants.

¹¹⁴The following cost comparison between recycled and new construction in Winnipeg was based on discussions with Hanscomb Roy Associates, Quantity Surveyors. All values are in dollars per square foot.

<u>Function</u>	<u>Recycled Accommodation</u>	<u>Comparable New Construction</u>
Retail Accommodation	15-25	25-30
Office Accommodation	20-30	30-40
Residential Accommodation	25-35	25-35

The higher cost of land usually associated with centrally located warehousing and the additional costs in the provision of services, parking, etc., might offset a significant proportion of the apparent cost advantages.

Appendices Q, R and S outline the effect of the high recycling costs on the market rental structure, and illustrate that conversion to residential use commands a break-even point of about \$6.30¹¹⁵ compared with approximately \$5.00 per square foot¹¹⁶ per annum for comparable accommodation in a new structure. In other words, a two-bedroom apartment in a recycled warehouse measuring 800 square feet would require a monthly rental of about \$418.00 while similar space in a new structure would cost about \$333.00 per month.¹¹⁷ This remuneration for recycled accommodation was unacceptable to both private and public sectors. The former expressed concern with the risks in limiting their market to the upper income levels of the local population, while the latter was hesitant to become involved in a project which would require a subsidy of such magnitude to even reach the rental level of comparable new apartments. Their reactions were significant enough to warrant the total exclusion of residential accommodation from the hypothesis.

Appendix T outlines the effect of recycling and acquisition costs on the market rental structure and illustrates that conversion to retail and office use commands an estimated break-even value of about \$7.60 per square foot, or gross

¹¹⁵This amount is gross and represents a total investment rate of about \$37.50 per square foot, including acquisition, recycling and overhead costs. A purchase value of \$5.00 per square foot would leave \$35.00 per square foot to cover recycling costs based on the net building area, which is in accordance with the maximum rate in Footnote 114.

¹¹⁶This amount is gross and represents a total investment rate of about \$28.00 per square foot; Discussions with Aronovitch and Leipsic, Winnipeg.

¹¹⁷The significantly higher costs of recycled accommodation can be attributed to both higher construction costs as well as the lower efficiency rate of the warehouses, which amounted to an average of 20% for the purposes of these calculations.

investment rate of \$33.50 per square foot,¹¹⁸ compared with approximately \$8.45 per square foot, or gross investment rate of \$40.00 per square foot,¹¹⁹ for space of a similar nature in a new building. Appendix U correlates the assessed figures with the actual amounts obtained in the market survey and although the latter represents an increase of about 2.6%, both support the feasibility of remodelling to these two uses. The significance of these statements centres on the practicality of recycling on a comparable rather than competitive basis, plus factors relating more to the advantages of traditional building techniques which cannot economically be duplicated, and in some cases a more central location, than to a monetary balance sheet.

Appendices V and W outline the commitment to private and public sectors in the implementation of the urban design, bearing in mind that it is significantly less ambitious than the proposals illustrated in the selected studies. The total cost to the property owners, including acquisition, recycling and new construction, amounted to \$38,058,204, while the account to the City including acquisition, covered mall, new development and expropriation, totalled \$12,025,875. In other words, every \$1 of public funding spent in upgrading could be expected to generate about \$3.16 of private investment in recycling.¹²⁰ Here, precedent again illustrates the inherent bias in public policy towards new

¹¹⁸Based on discussions with local property consultants.

¹¹⁹The amount includes acquisition, recycling and overhead costs. A purchase value of \$5.00 per square foot would leave a balance of about \$30.00 per square foot to cover construction costs based on the net building area, which is in accordance with the rates in Footnote 114.

¹²⁰This ratio excludes spin-off which is not directly related to physical upgrading.

construction where on the one hand, the City assessed an uncommitted outlay of \$1,245,000¹²¹ to assist in upgrading the entire Albert Street warehouse district in the northwest sector of downtown, while on the other, committed itself without hesitation to the provision of a costly multi-level parking structure and underground concourse on a nearby site to stimulate the erection of new buildings with guaranteed accommodation which can only be described as minimal.¹²² While accurate public-to-private spending ratios are naturally speculative, a brief examination of the monetary impact of the former, which has the potential of providing about 2,000,000 square feet of recycled space within one of the oldest areas of the Prairie Region, indicates that it will probably exceed the ratio of \$1 to \$3.16 by a significant proportion, while figures for the latter are more likely to weigh heavily in favour of private investment. Expressed in another way, the rehabilitative program had the potential of contributing the most, but received the least public support, while new construction obtained far more assistance by providing less.

¹²¹Phase 4, projected to 1976; Historic Winnipeg Restoration Study, Department of Environmental Planning, City of Winnipeg, 1974, p. 21.

¹²²The City committed itself to the provision of foundations and a multi-level parking structure for the proposed development at the intersection of Portage Avenue and Main Street in return for a guarantee of only 300,000 square feet of new accommodation by the Trizec Corporation; "Council Fumbled Parking," Winnipeg Tribune, June 2, 1976, pp. 2 and 5; *ibid.*, December 17, 1976; December 21, 1976; June 12, 1976.

This assessment suggests the need for local government to clearly define its function. If this decision involves the formulation of resolutions to guide the rational development of the City in response to the needs of the community, it should assume a more innovative role by directing its energies towards the development of policies and the availability of sources of funding for the implementation of its proposals. Local concern has demonstrated support for this supposition when warehouse owners involved in recycling operations recently denounced the actions of City Hall.¹²³

6.3 Social, Political and Legislative Concerns

A detailed analysis is beyond the scope of this text. Suffice to say that the social, political and legislative concerns outlined in Section 5.0 were limited to an examination in isolation rather than in terms of the overall concept incorporating the re-use of existing structures as an urban resource.

Social consideration was limited largely to the benefits of an absence of residential population in the area which would minimize disruption during the upgrading process, the rather strong influence of the adjoining 'urban forces' on the character of the proposed neighbourhood, and the increased demand for this type of living space in response to the spiralling costs of suburbia. In reality, the high costs of recycling will probably preclude residential use without massive public subsidy and concern should be oriented more towards the outgoing commercial population when they are forced to relocate because of the

¹²³Darlene Meakin, "Albert Street Renovation is Sought," Winnipeg Free Press, July 16, 1976, p. 33.

higher rental structure inevitably linked to a program of this nature. Actually, current literature is questioning the entire concept of a resurgence to downtown living as a solution to the traditional sprawl usually associated with western cities.¹²⁴ While the CBD and the Red River had a positive effect,¹²⁵ the influence of the adjoining cultural facilities was largely negative and seemed to have been conceived more as a convenience for the location of publicly-funded urban renewal projects on government-owned property than for the social spin-off it would generate on the future development of the surrounding area.¹²⁶

In support of the legislative procedure outlined in Section 5.0 which was based on the assumption that meaningful recycling could occur without amplification to the present system, the City of Winnipeg's legislation has not been specifically designed to enable the preservation of whole districts. Similarly, the studies made no attempt to examine alternative methods such as /Historic/ District Zoning, Tax Increment Financing or the Transfer of Development Rights (TDR). The background analysis defined two significant issues, namely, that the success of most projects was directly related to the degree of

¹²⁴This article was of particular significance; Meyer, "Don't Count on Fuel Prices to Halt Urban Sprawl," American Institute of Planners Journal, February 1975, p. 35.

¹²⁵The CBD is slowly expanding into this area and several warehouses have already been recycled. The City of Winnipeg is attempting to make land adjoining the two rivers accessible to the community.

¹²⁶City of Winnipeg, Department of Housing and Urban Renewal, Urban Renewal Area Number 3: Phase 1, Cultural Centre Renewal Scheme, July 1970, pp. 3-4.

co-operation between the public and private sectors and that /Historic/ District Zoning was usually employed when the area derived its character from an aggregation of historic buildings. Both factors were clearly applicable to the study area and should not have been ignored, their significance relating primarily to giving the area a unified political voice, controlling development through a set of regulations designed to suit the special circumstances of the area, preventing the demolition of the structures in the interim period which cannot be replaced and the modification of external facades in a manner uncomplimentary to the historic character of the district.¹²⁷

6.4 Evaluation of the Urban Design

The purpose of the urban design in this context was two-fold. Firstly, it provided the format for quantifying various proposals and assessing their impact and secondly, it represented an hypothesis somewhat typical of the selected studies. This analysis is only concerned with the latter function.

An evaluation of the selected plans presented one of the more difficult aspects of this exercise due to the varying philosophic attitudes of the individual authors.¹²⁸ While little evidence was found to support the concept

¹²⁷ The study area not only contains, but is also surrounded by vacant sites where historic buildings once stood, while uncomplimentary conversions have already taken place and more are scheduled for implementation.

¹²⁸ In this context, the urban design was based largely on the proposals of General Urban Systems Corporation, Urbex Winnipeg: Preliminary Report, Ministry of State for Urban Affairs, Ottawa, March 1974.

that an urban design per se could exert an influence strong enough to change human behavioural patterns in favour of rehabilitative programs, its value as the inevitable product of a great number of policies which have varying effects on both society and the urban environment was often misunderstood. It should be recognized as a vital part of the planning process and represents a physical response to the needs of a dynamic society. Its relevancy, which strongly suggests some prior understanding of human patterns, depends mainly upon two major influences, namely, its sensitivity towards the true needs of society and its limitation in predicting future demands.

Under such circumstances, the basic law of the Modern Architectural Movement which states that form follows function has, of necessity, to be reversed so that in recycling operations, functions are dependent on their ability to meet the needs of each particular form.

7.0 CONCLUSION

Winnipeg's physical form displays the results of its dynamic past; its inventory of mammoth warehouses aptly reflects the product of its once expansive society. The impact of the sudden loss of its wholesale trade when its role changed from gateway to the Prairie Region to a Provincial central place, led not only to the redundancy of large amounts of storage accommodation, but also shifted the location of its CBD in response to a new technology. The effect of the railway which was so important in its earlier development eventually led to its decline. The survival of the warehouses can be attributed largely to the availability of adequate land for expansion and the high costs of demolition because of their sturdy construction, while the emergence of a new set of human value standards which is slowly effecting our traditional economic pattern to favour the built environment, is now converting this liability into an asset.

Recycling emerged from the restoration of single structures by individuals for Architectural or Historic preservation through private funding, and moved towards the re-use of whole districts by public and private entities in response to socio-economic influences. Present-day programs involve a range of factors where the primary choice should clearly be perceived in recognition of either the retention or destruction of existing structures as an urban resource, while other aspects usually associated with the more traditional process of urbanization, such as the revitalization of blighted downtown areas and

cultural merit, should be considered secondary. Physical constraints generally represented one of the least significant areas of concern, particularly with regard to district rehabilitation and could be completed with relative ease through modern constructional technology. More successful recycling projects occurred in response to public demands when the people witnessed the wasteful destruction of the socio-physical environment with which they were familiar. Similar demands are now apparent in Winnipeg and positive action by local government is long overdue.

Notwithstanding the concessionary nature of modifying the new Tax Act in favour of rehabilitative programs, such temporary actions can be justified in order to stabilize the present bias towards new construction. Influences such as the dramatic rise in the cost of natural resources, labour, materials and transportation are also having an adverse effect on wasteful programs and are reinforcing demands for a reassessment of the built environment. Studies verify that demolition and replacement is not always the optimum solution and sometimes involve a net loss. The City should examine its tax base in broader scope, perhaps as a trade-off to some greater potential which might more than adequately balance any short-term deficit. Surveys at the national level indicate that Canadians are becoming acutely aware of their heritage and visits to places of historic merit now rank highest, at a time when the multiplier effects of the tourist dollar cannot be underestimated.

Techniques such as Tax Increment Financing and /Historic/ District Zoning can easily be adopted to give the City time to examine long-term, more rational policies such as the Transfer of Development Rights, to lead it out of

its present oblivious state. Although economics play an important role, no single factor should be isolated in the provision of a recycling formula which probably extends beyond the monetary balance sheet. Precedent indicates that success often depends on the degree of co-operation between the two sectors and that rehabilitative programs will not occur at any significant level without governmental support, particularly at the municipal level.

The assessment generally did not support the hypothesis of the selected studies. The evaluation upheld the background analysis, which was not in agreement with significant reductions in the rental structure as the basis for recycling. Although public funding could obviously generate some private investment, the urban design was conceived without due regard to any significant commitment and there was little to support the proposal that it would generate rehabilitative programs by itself. The close proximity of the existing cultural facilities to the study area was not found to have particular influence over future development. While conversion to retail and office use upheld, present-day conditions did not favour residential rehabilitation without substantial public subsidy. Socio-political concerns required dramatic expansion and the City needed to eventually look beyond the framework of its existing legislation for meaningful recycling to occur. The importance of preservation at the district level, so that not only the character of the area could emerge as an aggregate according to a set of regulations designed to meet the special circumstances, but also the locality be given a single political voice, was seriously neglected.

Although the prevailing attitudes of owners towards the historic value of their properties makes short-term intervention premature, understanding should be perceived in the longer term as a natural extension of a concern already prevalent in the Albert Street warehouse district. In reality, public commitment in support of new construction in downtown Winnipeg illustrates the need to tip the scales even further in favour of rehabilitative programs.

Each society inevitably gets what it demands in response to value standards set by the dynamics of human behavioural patterns. These trends, implemented by either evolution or revolution, shift constantly so that principles such as the economics of a balance sheet which seem so important under present-day circumstances, vary in accordance with social change. The recognition of the built environment as a resource will only emerge in response to the demands of society. Although policies and plans exert an influence, they cannot determine the extent to which these programs will occur.

APPENDICES

APPENDIX A

Building Statistics for City of Winnipeg from 1900 to 1960

Year	Number of Buildings	Value of Permits (in millions of \$)
1900	638	1.4
01	820	1.7
02	973	2.4
03	1,513	5.6
04	2,268	9.6
05	4,099	10.8
06	4,204	12.6
07	2,827	6.3
08	1,769	5.5
09	2,942	9.2
1910	3,916	15.1
11	4,342	17.5
12	5,339	20.5
13	--	18.3
14	3,614	12.1
15	1,304	1.8
16	1,126	2.5
17	1,268	2.2
18	1,458	2.0
19	1,789	2.9
1920	2,501	8.3
21	3,201	5.5
22	3,473	6.8
23	2,716	4.4
24	2,525	3.1
25	2,399	4.1
26	2,270	10.3
27	2,673	7.5
28	2,859	10.5
29	2,870	11.0

APPENDIX A (Continued)

Year	Number of Buildings	Value of Permits (in millions of \$)
1930	2,231	6.6
31	1,940	4.3
32	1,220	2.1
33	915	7.4
34	884	0.7
35	872	2.7
36	1,264	1.4
37	1,496	2.5
38	1,721	1.9
39	1,762	2.5
1940	1,846	3.3
41	1,908	4.0
42	1,639	2.9
43	1,276	1.9
44	1,638	4.4
45	2,465	7.8
46	2,788	11.8
47	3,342	17.4
48	2,781	18.6
49	3,144	15.0
1950	4,145	19.4
51	3,162	16.4
52	3,603	19.2
53	3,933	21.8
54	3,838	35.8
55	4,131	42.3
56	3,327	29.5
57	3,415	34.0
58	3,751	28.5
59	3,258	30.7
1960	3,155	36.3

APPENDIX A (Continued)

Source: Department of Environmental Planning, City of Winnipeg, Building Statistics. City of Winnipeg Municipal Manual 1913.

APPENDIX B

Growth of Major Urban Centres within the Three Prairie Provinces and British Columbia

Urban Centre	1871	1881	1891	1901	1911	1921	1931	1941	1951	1961
Calgary	--	--	--	4,091	43,704	63,305	83,761	88,904	129,060	249,641
Edmonton	--	--	--	2,626	24,900	58,821	79,197	93,817	159,631	281,027
Regina	--	--	--	2,249	30,213	34,432	53,209	58,245	71,319	112,141
Saskatoon	--	--	--	113 ¹	12,004	25,739	43,291	43,027	53,268	95,526
Vancouver	--	--	--	27,010	100,401	163,220	246,593	275,353	344,833	384,522
Winnipeg	241 ¹	7,985	25,639	42,340	136,035	179,087	218,785	221,960	235,710	265,429

¹Not incorporated.

²Figures represent population within city limits rather than entire metropolitan areas.

Source: Statistics Canada, Census of Canada: 1941, General Review; Census of Canada: 1961, General Review.

APPENDIX C

Growth of Canada, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia

(Population in Thousands)

Year	Canada	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1867	3,463	1,525	15	---	---	32
68	3,511	1,545	17	---	---	33
69	3,565	1,569	20	---	---	34
1870	3,625	1,594	22	---	---	36
71	3,689	1,621	25	---	---	36
72	3,754	1,651	29	---	---	37
73	3,826	1,685	33	---	---	39
74	3,895	1,718	37	---	---	40
75	3,954	1,746	41	---	---	42
76	4,009	1,774	44	---	---	43
77	4,064	1,802	47	---	---	44
78	4,120	1,829	50	---	---	45
79	4,185	1,861	54	---	---	46
1880	4,255	1,894	58	---	---	48
81	4,325	1,927	62	---	---	49
82	4,375	1,946	71	---	---	54
83	4,430	1,968	80	---	---	59
84	4,487	1,988	90	---	---	64
85	4,537	2,005	99	---	---	69
86	4,580	2,020	108	---	---	74
87	4,626	2,037	117	---	---	78
88	4,678	2,057	126	---	---	83
89	4,729	2,075	135	---	---	88
1890	4,779	2,093	144	---	---	93
91	4,833	2,114	153	---	---	98
92	4,883	2,119	163	---	---	106
93	4,931	2,122	173	---	---	114
94	4,979	2,128	183	---	---	122
95	5,026	2,133	193	---	---	130

APPENDIX C (Continued)

87

Year	Canada	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1896	5,074	2,137	203	--	--	138
97	5,122	2,142	213	--	--	146
98	5,175	2,149	223	--	--	154
99	5,235	2,159	234	--	--	162
1900	5,301	2,172	245	--	--	170
01	5,371	2,183	255	91	73	179
02	5,494	2,194	275	125	96	199
03	5,651	2,217	296	159	119	220
04	5,827	2,246	318	194	142	242
05	6,002	2,289	344	236	166	264
06	6,097	2,299	366	258	185	279
07	6,411	2,365	395	311	236	309
08	6,625	2,412	413	356	266	330
09	6,800	2,444	427	401	301	350
1910	6,988	2,482	441	446	336	370
11	7,207	2,527	461	492	374	393
12	7,389	2,572	481	525	400	407
13	7,632	2,639	505	563	429	424
14	7,879	2,705	530	601	459	442
15	7,981	2,724	545	628	480	450
16	8,001	2,713	554	648	496	456
17	8,060	2,724	558	662	508	464
18	8,148	2,744	565	678	522	474
19	8,311	2,789	577	700	541	488
1920	8,556	2,863	594	729	565	507
21	8,788	2,934	610	757	588	525
22	8,919	2,980	616	769	592	541
23	9,101	3,013	619	778	593	555
24	9,143	3,059	625	791	597	571
25	9,294	3,111	632	806	602	588
26	9,451	3,164	639	821	608	606
27	9,637	3,219	651	841	633	623
28	9,835	3,278	664	862	658	641
29	10,029	3,334	677	883	684	659

APPENDIX C (Continued)

Year	Canada	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1930	10,208	3,386	689	903	708	676
31	10,376	3,432	700	922	732	694
32	10,510	3,473	705	924	740	707
33	10,633	3,512	708	926	750	717
34	10,741	3,544	709	928	758	727
35	10,845	3,575	710	930	765	736
36	10,950	3,606	711	931	773	745
37	11,045	3,637	715	922	776	759
38	11,152	3,672	720	914	781	775
39	11,267	3,708	726	906	786	792
1940	11,381	3,747	728	900	790	805
41	11,507	3,788	730	896	796	818
42	11,654	3,884	724	848	776	870
43	11,795	3,915	723	838	785	900
44	11,946	3,963	727	836	808	932
45	12,072	4,000	727	833	808	949
46	12,292	4,093	727	833	803	1,003
47	12,551	4,176	739	836	825	1,044
48	12,823	4,275	746	838	854	1,082
49	13,447	4,378	757	832	885	1,113
1950	13,712	4,471	768	833	913	1,137
51	14,009	4,598	776	832	939	1,165
52	14,459	4,788	798	843	973	1,205
53	14,845	4,941	809	861	1,012	1,248
54	15,287	5,115	823	873	1,057	1,295
55	15,698	5,266	839	878	1,091	1,342
56	16,081	5,405	850	881	1,123	1,399
57	16,610	5,636	862	880	1,164	1,482
58	17,080	5,821	875	891	1,206	1,538
59	17,483	5,969	891	907	1,248	1,567

APPENDIX C (Continued)

Year	Canada	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1960	17,870	6,111	906	915	1,291	1,602
61	18,238	6,236	922	925	1,332	1,629
62	18,583	6,351	936	930	1,369	1,660
63	18,931	6,481	949	933	1,403	1,699
64	19,290	6,631	959	942	1,429	1,745
65	19,644	6,788	965	950	1,450	1,797
66	20,015	6,961	963	955	1,463	1,874
67	20,378	7,127	963	957	1,490	1,945
68	20,701	7,262	971	960	1,524	2,003
69	21,001	7,385	979	958	1,559	2,060
1970	21,297	7,551	983	941	1,595	2,128
71	21,569	7,703	988	926	1,628	2,185
72	21,821	7,824	992	916	1,654	2,247
73	22,095	7,939	998	908	1,683	2,315
74	22,446	8,094	1,011	907	1,714	2,395
75	22,800	8,226	1,019	918	1,768	2,457

Source: Statistics Canada, Census of Canada: 1941, General Review,
p. 1027, Census of Canada: 1975, General Review.

APPENDIX D

Value of Building Permits in Dollars per Capita,
Issued in Eight Canadian Cities from 1900 to 1939

Year	Winnipeg	Montreal	Toronto	Regina	Saskatoon	Calgary	Edmonton	Vancouver ¹
1900	35							
01	39							
02	43							
03	91							
04	137		23	20		54		
05	136		37	58		42	47	
06	143		44	125		46	106	
07	67		45	62	52	75	112	
08	49		40	24	14	31	110	
09	78		52	30	104	68	83	
1910	119		58	87	260	140	76	
11	130		64	170	419	298	118	
12	147		69	263	570	450	427	
13	128	52	66	130	—	182	252	81
14	82	33	49	56	—	69	87	33
15	12	14	15	14	1	3	7	12
16	16	10	22	7	8	12	5	21
17	14	8	15	13	29	10	6	5
18	12	8	18	30	28	21	7	10
19	17	17	40	50	61	37	17	15
1920	48	23	51	76	47	47	58	22
21	31	34	46	64	30	36	26	19
22	38	33	66	50	66	47	38	50
23	24	41	56	33	29	12	24	35
24	17	46	43	24	46	15	35	33
25	21	36	46	29	33	17	22	41
26	52	44	45	96	58	27	27	112
27	37	61	53	76	89	31	36	78
28	51	48	86	139	151	81	46	88
29	52	59	78	204	148	143	76	94

APPENDIX D (Continued)

Year	Winnipeg	Montreal	Toronto	Regina	Saskatoon	Calgary	Edmonton	Vancouver
1930	31	47	52	58	133	50	56	62
31	20	39	35	30	40	23	17	41
32	10	13	12	5	39	11	14	11
33	3	7	7	7	2	5	5	6
34	3	5	12	5	2	8	6	6
35	12	9	15	12	3	10	8	15
36	6	8	13	6	5	10	10	18
37	10	9	17	8	6	8	10	26
38	9	12	13	8	10	10	31	31
39	12	10	16	10	6	12	18	23

¹Includes figures for South Vancouver and Point Grey, from 1926.

Source: Canada Year Books and Data supplied by the Engineering Departments of the Cities named, citing R. C. Bellan, "The Development of Winnipeg as a Metropolitan Centre," (Ph.D. Thesis, Columbia University, 1958), pp. 508-9.

APPENDIX E

Canadian Housing and Renewal Legislation

- 1935 - Dominion Housing Act: Joint Federal and Private residential loans or guarantees.
- 1944 - National Housing Act (NHA). Generally reinforced the above.
- 1945 - Central Mortgage and Housing Corporation Act (CMHC). Established as the federal agency to administer NHA.
- 1946 - NHA Amendment. Up to 80% direct lending.
- 1949 - NHA Amendment. Federal-Provincial participation in public housing projects and land assembly.
- 1954 - NHA of 1954. Federal guarantee loans from private lending institutions.
- 1956 - NHA Amendment. CMHC loans and grants for Urban Renewal studies by municipalities.
- 1960 - NHA Amendment. Loans for public services and student housing.
- 1962 - NHA Amendment. Federal grants and loans for Urban Renewal Scheme preparation, implementation, clearance and reconstruction.
- 1964 - NHA Amendment. Loans for senior citizen housing.
- 1966 - NHA Amendment. Financing for existing housing.
- 1967 - NHA Amendment. Changes to interest rate formula.
- 1973 - NHA Amendment. Assisted Home Ownership (AHOP). Neighbourhood Improvement Program (NIP). Residential Rehabilitation Assistance. Land Assembly Assistance. New Communities Program.

Source: Compiled from various Government publications.

APPENDIX F

Rise in Construction Costs for Mid-West Canada between 1956 and 1976

Unit Base: Year 1961 = 100

Building Costs are composite, namely, materials and wages

<u>Year</u>	<u>Month</u>	<u>Units</u>	<u>Year</u>	<u>Month</u>	<u>Units</u>
1956	June	84.5	1966	June	119.7
1957	June	86.3	1967	June	127.8
1958	June	91.5	1968	June	137.8
1959	June	100.5	1969	June	141.0
1960	June	99.6	1970	June	153.4
1961	June	100.0	1971	June	170.3
1962	June	103.0	1972	June	181.5
1963	June	104.2	1973	June	208.0
1964	June	109.0	1974	June	240.9
1965	June	115.0	1975	June	252.7
			1976	February	266.3

Source: Canadata: Southam Construction Index, monthly indices for Mid-West series from 1956 to 1976.

Project Details					Structural Analysis							Hard Cost Analysis ¹					
Address	Function	Date of Const	Date of Re'cl	Area of Bldg. in Sq Ft	Brick/Mason	Concrete	Steel	Timber	Combined	Other	Institutional funding ³ (partial or full)	Dem'tn	Arch'l	Struct'l	Mech'l	Rate in \$/Sq Ft	
Chickering Piano Fact., Boston	Fact. to res. Dept. store to ret/ res.	1853	1974	225,000	•							M	N	M	N	11.87	
The Cast Iron Bldg, N.Y. City		1868	1974	107,923	•					•		S	S	S	S	30.83	
Dodge-average (Res)													11.64	3.72	7.71	23.07	
Means-lowest (Res)																	9.40
Means-median (Res)																	21.11
Means-highest (Res)																	96.66
Clinton House, New York	Hotel to museum Museum to off/gallery	1820/32	1974	30,000	•							0.75S	6.75N	2.75S	2.25N	12.50	
San Francisco Museum of Mod. Art		1934	1975	65,000	•		•		•			1.34M	12.67N	2.47M	8.85S	25.33	
Nat. Mus. of Design, N.Y. City	Mansion to museum Courthouse to library	1901	1976	55,000	•		•		•			S	S	N	S	31.81	
Jefferson Market Library, N.Y. City		1875	1967	21,866	•							3.50N	49.00S	7.00N	26.25S	85.75	
Dodge-average (library)													16.66	13.28	18.75	48.69	
Means-lowest (library)																15.98	
Means-median (library)																41.53	
Means-highest (library)																104.76	
Webster House, Boston	House to office	1872	1972	31,800	•							M	M	M	M	3.74	
Bank of Newburg Bldg., N.Y.	Bank to office	1821	1974	3,900	•							0.53N	6.57N	1.06M	3.50S	11.66	
China Basin Bldg., San Fran.	Store to office	1920	1973	500,000	•	•			•			0.62M	7.80N	0.62M	7.94S	16.98	
Butler Sq., Minneapolis	Warehouse to off/ret	1906	1974	500,000	•							0.26N	9.48N	2.90N	6.12S	18.76	
Grand Central Arcade, Seattle	Conv. to off/ret	1889	1973	80,000	•							0.73N	14.16N	0.44N	4.77N	20.10	
Pioneer Bldg., Seattle	Conv. to off/ret	1892	1975	88,550	•							M	N	N	N	23.89	
Teknoc Apex Co., Rhode Island	Off. to off.	1900	1974	25,000	•		•					M	N	M	N	30.06	
Baltimore City Hall, Balt.	City hall to off.	1875	1976	203,000	•							3.75S	15.75S	S ²	13.50S	33.00	
Old Boston City Hall, Boston	City hall to off/ret	1865	1972	40,000	•							1.99S	15.18S	2.64S	13.20S	33.00	
Actors Theatre, Kentucky	Warehouse to off/ret	1836	1972	42,125	•							0.54N	18.76N	2.14N	12.06N	33.50	
Saturday Review Bldg., San Fr.	Fact. to off.	1910	1973	27,657	•							---	18.83	6.12	11.88	36.83	
21 Merchants Row, Boston	Conv. to off.	---	1972	25,000	•							3.96	19.80	6.60	6.60	36.96	
One Winthrop Sq., Boston	Ret. to off/ret	1873	1974	105,000	•							3.98S	24.86S	2.26N	10.17S	40.68	
Blackwell Hse., New York	House to office	1810	1973	6,348	•		•					0.57M	21.13S	2.26N	19.55S	43.51	
Dodge-average (office)													13.47	6.67	9.48	29.62	
Means-lowest (office)																12.10	
Means-median (office)																35.48	
Means-highest (office)																101.52	
Trolley Sq., Salt Lake City	Barns to off/ret	1908	1975	566,280	•	•			•			---	---	---	---	18.65	
Exeter St. Theater, Boston	Temple to off/theatre	1885	1976	37,000	•					•		2.00	15.00	1.00	4.00	22.00	
Park Sq. Crt., St. Paul, Minn.	Warehouse to off/ret	1885	1971	120,000	•							2.62N	7.86N	3.39N	7.86S	22.09	
The Garage, Camb., Mass.	Conv. to ret/ent'mt	1870	1974	55,000	•	•			•			2.28S	19.72S	4.56S	6.85S	33.41	
Southridge Credit Un., Mass.	House to bank	1867	1975	6,017	•			•	•			1.73N	33.91N	1.88N	11.99N	49.51	
Design Research, Phil.	Conv. to ret.	1896	1975	20,000	•		•		•			S	S	S	19.63S	61.20	
Dodge-average (Retail)												---	11.32	5.03	8.56	24.91	
Means-lowest (Retail)																6.48	
Means-median (Retail)																21.11	
Means-highest (Retail)																75.60	
Centre Stage, Balt.	School to theatre	1856	1975	90,000	•					•		S	N	S	S	17.77	
Simons Rock Art Centre, Mass.	Barn to art theatre	1900	1966	10,500	•			•				M	N	S	N	23.64	
N.Y. ShakespeareFest., NYC	Conv. to rehearsal	1854/84	1971	63,280	•							1.38N	18.35S	4.14N	15.87S	39.74	
Good Shepherd Chapel, N.Y.	Church to comm. cen.	1889	1975	15,830	•							0.51M	23.69N	5.15N	19.05S	48.40	
Exeter Assen. Hall, NewHamp.	Conv. to ass. hall	1915	1971	10,350	•		•		•			N	N	S	S	136.40	
Dodge-average (theatre)												---	22.55	8.35	18.01	48.91	
Means-lowest (theatre)																12.15	
Means-median (theatre)																31.38	
Means-highest (theatre)																68.96	

APPENDIX G (Continued)

¹All values are in \$ (U.S.).

Baird Smith up-dated costs to reflect January 1976 rates. The Dodge-Average is based on the U.S. National Average for comparable structures, although care should be taken when relating this average to recycling rates because older structures, by their very nature, provide more than present-day accommodation and if reproduced in their entirety, would probably cost three times as much as this average index, *ibid.*, pp. 6-8, citing McGraw-Hill Information Services Company, Dodge Building Cost Service: 1976.

The means--lowest, median or highest--were compiled from a large sample at (U.S.) national level. Letters indicate the degree of work required in each category, namely, minimal (M), normal (N) and substantial (S), *ibid.*, p. 8, citing the Robert Snow Means Company, Building Construction Cost Date: 1976.

²Structural costs were included under Architectural.

³Institutional funding refers to a source of funding not normally associated with market conditions and was acknowledged only if direct reference could be found to a source or if the building was included on the U.S. National Register. It is possible for certain structures to have received assistance without acknowledgement.

APPENDIX H

United States Preservation Legislation

1906	Antiques Act ¹	President given authority to establish monuments on Federal Land.
1916	National Park Service ¹	Establishment of a policy for the Preservation of Sites, Structures and Objects of National Interest.
1935	Historic Sites Act	Setting up a National Register for the above.
1949	The National Trust for Historic Preservation	Establishment of a non-profit organization to facilitate public participation in the preservation of sites, buildings and objects of national or regional significance.
1965	Landmarks Preservation Commission of the City of New York	Giving the Commission the power to designate (private) property as a landmark (for public use).
1966	The National Historic Preservation Act. ²	Consolidation of the federal stand on Historic Preservation by including districts and offering significant financial assistance to state and local governments.
1969	National Environmental Policy Act	Additional consideration of the impact of Historical Preservation on environmental planning.
1971		President recommends legislation to provide tax incentives for preservation. (This is presently before Congress for consideration.)
1973		Task force on Land Use and Urban Growth suggests that the National Register of Historic Places be expanded to include districts of historic importance containing mixed uses.

APPENDIX H (Continued)

1974	Environmental Protection Tax Act ³	At present under consideration in Congress. Its aim is to make Historic Preservation more feasible for commercial or rental purposes by allowing the owner to deduct the costs of rehabilitation from his annual income over a period of five years.
1974		The Act provides for the Secretary of Housing and Urban Development to guarantee loans by private lending institutions for the preservation of historic structures, including residential buildings. ³

¹Governmental intervention aroused serious concern within the ranks of the private sector who envisaged an infringement against their rights as landowners and projects initially involved publicly-owned properties. No funding was set aside for assistance.

²For the first time included public funding and districts.

³If approved, this will provide one of the most effective means of closing the gap between new and recycled programs.

Sources: Lawson B. Knott, Jr., "The Impact of Historic Preservation on Development and Land Use," Urban Land (July, August 1975): 4-7.

Peter Wolf, The Future of the City (New York: Whitney Library of Design, Watson-Guptile Publications, 1974), pp. 138-147.

APPENDIX J

/Historic/ District Zoning Principles

1. Selection of areas for conservation.
2. Examination of legal and economic tools for implementing the program.
3. Compilation of an inventory based on a survey.
4. Examination of the zoning and building codes.
5. Restrictions on the heights of new structures adjoining older.
6. Restrictions or delays on demolition permits.
7. Establishing guidelines for design.
8. Establishing economic incentives.
9. Developing of a citizen participation program.
10. Establishing an education program for area conservation.

Source: Michael Y. Seetig, "Area Conservation as an Asset to Planning - Not a Necessary Evil," Architectural Record 156 (December 1974): 106-109. (The Vancouver Conservation Program).

APPENDIX K

Expenditures of Tourists (in Canada) According to Their Main Activity

	<u>Value in Millions of Canadian \$</u>	<u>As a % of Total Value</u>	<u>Total Value in Canadian \$</u>
Visiting historical and cultural sites	517	29.2	
Fishing	270	15.2	
Spectator sports	177	10.0	
Boating	159	9.0	
Hunting	93	5.3	
Golf	57	3.2	
Snow skiing	54	3.1	
Snowmobiling and sledding	33	2.4	
Respondents listing no main activity*	<u>414</u>	<u>23.3</u>	<u> </u>
	1,774	100.0	1,774

NOTE: Survey included Canadian residents only.

*Figures not included.

Source: George Galt, Investing in the Past, a report on the profitability of Heritage Conservation, Heritage Canada 1974, p. 3b.

APPENDIX I,
Property Details within Study Area

Realty Roll Number	Building Location	Number of Floors	Present Function	o l t v	Ground Floor Area ²	Annual Rental in \$	Other Areas	Annual Rental in \$	Rate in \$ per Sq Ft ⁵	Open Land Area	Function	Vacancy Rate (% Age)	Approx. Gross Gr Flr Area ³	Total Building Area	
														Net	Gross ⁴
607 600	Bannatyne	--	Parking	t											
607 700	Bannatyne	--	Pump Stn.	t						23,936	Parking				
607 740	4 Bannatyne	--	Parking	t						5,600	Parking				
607 780	4 Bannatyne	Gr. Flr.	Movers	o	2,003	1,493				12,948	Parking				
627 860	479/81 Main	Gr. Flr.	Service Est.	t	1,347	2,520			0.75 1.87	10,336	Service	0.0 0.0	2,003 1,347	2,003 1,347	2,003 1,347
627 880	455/61 Main	B + 1-9	Service Est.	t	275	480			1.75						
			Wh'sale	t	1,120	600			0.54						
			Prof. Serv.	t	1,554	3,612			2.32						
			Service Org.	t	1,119	2,400			2.14						
			--	v	8,872	--			--						
			Service Org.	t			5,412	12,000	1.48						
			Prof. Serv.	t			3,632	5,220	1.55						
			Wh'sale	t			201	360	1.79						
			--	v			32,865	--	--						
			Total		12,940	7,092	42,110	6,780	1.60			75.8	10,500	55,050	66,060
627 930	185 Bannatyne	B + 1-6	Prof. Serv.	t	1,495	4,368			2.92						
			Manufacture	t			7,436	4,980	0.69						
			Wholesale	t			8,856	7,740	1.50						
			--	v			31,000	--	--						
			Total		1,495	4,368	47,292	12,720	1.47			63.5	9,000	48,787	58,500
627 960	441 Main, corner of Bannatyne	B + 1-4	Prof. Serv.	o			9,337	21,000	2.15						
			Prof. Serv.	t			2,704	3,960	1.46						
			Wholesale	t			602	1,140	1.90						
			--	v			288	--	--						
			--	v ⁶			7,069	--	--						
			Total				20,000	26,100	1.91			2.0	5,400	20,000	24,000
627 970	189 Bannatyne	Gr. Flr.	Workshop	o			4,850	2,984	0.62	2,672	Parking	0.0	4,850	4,850	4,850
627 990	181/83 Bannatyne	B + 1-6	Wholesale	o			43,795	2,400	0.55			0.0	6,250	43,795	43,795
628 001	157/79 Bannatyne	B + 1-6	Wholesale	t	4,816	12,000			2.50						
			Retail	t	3,648	4,740			1.30						
			Retail	o	8,267	25,500			3.08						
			Manufacture	o			153,978	107,400	0.71						
			Manufacture	t			29,766	22,320	0.75						
			--	v			29,500	--	--						
			Total		16,731	42,240	213,244	129,720	1.51			12.8	36,000	229,975	250,000
628 041	174 Market	--	Cult. Fac.	o											
628 140	180 Market	--	Cult. Fac.	o											
628 180	143/55 Bannatyne	--	Parking	o											
628 200	141 Bannatyne	B + 1-4	Manufacture	o			31,577	19,800	0.63	9,670	Parking	0.0	7,500	31,577	37,900

Realty Roll Number	Building Location	Number of Floors	Present Function	ol t v	Ground Floor Area ²	Annual Rental in \$	Other Areas	Annual Rental in \$	Rate in \$ per Sq Ft ⁵	Open Land Area	Function	Vacancy Rate (% Age)	Approx. Gross Gr Flr Area ³	Total Building Area	
														Net	Gross ⁴
628 220	137 Bannatyne	B + 1-4	Service Est.	o v v ⁶	2,089	2,760			1.32						
							4,256	—	—						
							4,280	—	—						
			Total		2,089	2,760	8,536		1.32			33.0	2,500	10,625	12,500
628 240	127 Bannatyne	Gr. Flr.	Stocks & Bonds	t	4,802	9,000			1.87	7,076	Parking	0.0	4,802	4,802	4,802
628 270	123 Bannatyne	B + 1-4	Manufacture	t			22,797	12,960	0.57			0.0	4,560	22,797	22,797
628 291	115/17 Bannatyne	B + 1-3 B + 1-5	—	v			53,044	—	—			100.0	10,225	53,044	53,044
700 000	483/83½ Main	1 + 2	Prof. Serv.	t	1,463	3,000			2.05						
			Retail	o			1,300	1,920	1.47						
			Total		1,463	3,000	1,300	1,920	1.76			0.0	1,500	2,763	3,000
700 010	487 Main	1 + 2	Retail	o			3,654	6,780	1.86			0.0	1,800	3,654	3,654
700 020	491/91½ Main	1, 2 + 3	Retail	o			7,617	6,780	0.89			0.0	2,550	7,617	7,617
700 030	499/501 Main	1, 2 + 3	Institution.	t			4,418	4,400	1.00			0.0	1,475	4,418	4,418
700 041	507 Main	Gr. Flr.	Retail	t	3,580	6,180			1.72			0.0	3,580	3,580	3,580
700 060	515 Main	Gr. Flr.	Pub. Serv.	t	4,000	28,000			7.00			0.0	4,000	4,000	4,000
700 230	136 Market	B + 1-8	Retail	t	7,672	12,072			1.57						
			Service. Est.	t	6,062	4,800			0.79						
			—	v	7,773	—			—						
			Manufacture	o			7,773	1,800	0.25						
			Manufacture	t			60,661	47,736	0.79						
			—	v			72,654	—	—						
			Total		21,507	16,872	141,088	49,536	0.83			49.4	24,000	162,595	185,000
700 320	116 Market	B + 1-2	—	v			27,000	—	—			100.0	9,000	27,000	27,000
700 340	112/14 Market	B + 1-5	Wholesale	t			11,586	11,820	0.96						
			Manufacture	t			31,467	22,810	0.73						
			Prof. Serv.	t			10,106	6,750	0.67						
			Total				53,159	41,380	0.81			0.0	9,400	53,159	56,250
700 360	90 Market	Gr. Flr.	Wholesale	o			26,071	18,690	0.72	11,249	Parking	0.0	26,071	26,071	26,071
700 480	Bannatyne	—	Parking	o						59,205	Parking				

¹o - Owner occupied t - Tenant occupied v - Vacant

²All areas are in square feet.

³Approximate gross ground floor areas were calculated by adding between 15% and 20% to net areas, depending on occupancy.

⁴Total gross building areas were calculated by adding between 15% and 20% to net areas, depending on occupancy.

⁵Represents average rate calculated from 1975 Business Premises List, Procedure 1.

⁶Calculated balance, not indicated in official records.

Source: 1975 Business Premises List, Procedure 1, City of Winnipeg, Environmental Planning Department.

APPENDIX M

Summation of Property Details within Study Area (All Areas are in Square Feet)

Realty Roll Number	Address of Building or Land	Average Rental Rate in \$/Sq. Ft. ¹	Vacancy Rate (% Age)	Open Land Area	Approximate Gross Ground Floor Area ²	Total Building Area	
						Net	Gross ³
607 600	Bannatyne Avenue			23,936			
607 700	Bannatyne Avenue			5,600			
607 740	4 Bannatyne Avenue ⁴			12,948 ⁵			
627 860	479/81 Main Street	1.87	0.0		1,347	1,347	1,347
627 970	189 Bannatyne Avenue	0.62	0.0	2,672	4,850	4,850	4,850
628 041	174 Market Avenue ⁴						
628 140	180 Market Avenue ⁴						
628 180	Bannatyne Avenue			9,670			
628 240	127 Bannatyne Avenue	1.87	0.0	7,076	4,802	4,802	4,802
700 000	483/83½ Main Street	1.76	0.0		1,500	2,763	3,000
700 010	487 Main Street	1.86	0.0		1,800	3,654	3,654
700 020	491/91½ Main Street	0.89	0.0		2,550	7,617	7,617
700 030	499/501 Main Street	1.00	0.0		1,475	4,418	4,418
700 041	507 Main Street	1.72	0.0		3,580	3,580	3,580
700 060	515 Main Street	7.00	0.0		4,000	4,000	4,000
700 360	90 Market Avenue	0.72	0.0	11,249	26,071	26,071	26,071
700 480	Bannatyne Avenue			59,205			
TOTAL				119,408	51,975	63,102	63,339

APPENDIX M (Continued)

¹Represents average rate calculated from the 1975 Business Premises List, Procedure 1.

²Approximate gross ground floor areas were calculated by adding between 15% and 20% to the net areas, depending on occupancy.

³Total gross building areas were calculated by adding between 15% and 20% to net areas, depending on occupancy.

⁴Land partially or fully owned by the City of Winnipeg, excluded from total area.

⁵Presumes part of 607 740 above.

Source: 1975 Business Premises List, Procedure 1, City of Winnipeg, Environmental Planning Department.

APPENDIX N

Summation of Property Details of Inventory (All Areas are in Square Feet)

Realty Roll Number	Address of Building ¹	Average Rental Rate in \$/Sq. Ft. ²	Vacancy Rate (% Age)	Approximate Gross Ground Floor Area ³	Total Building Area	
					Net	Gross ⁴
627 880	455/61 Main Street	1.60	75.8	10,500	55,050	66,060
627 930	185 Bannatyne Avenue	1.47	63.5	9,000	48,787	58,500
627 960	441 Main Street	1.91	2.0	5,400	20,000	24,000
627 990	181/83 Bannatyne Avenue	0.55	0.0	6,250	43,795	43,795
628 001	157/79 Bannatyne Avenue	1.51	12.8	36,000	229,975	250,000
628 200	141 Bannatyne Avenue	0.63	0.0	7,500	31,577	37,900
628 220	137 Bannatyne Avenue	1.32	33.0	2,500	10,625	12,500
628 270	123 Bannatyne Avenue	0.57	0.0	4,560	22,797	22,797
628 291	115/17 Bannatyne Avenue	0.00	100.0	10,225	53,044	53,044
700 230	136 Market Avenue	0.83	49.4	24,000	162,595	185,000
700 320	116/118 Market Avenue	0.00	100.0	9,000	27,000	27,000
700 340	112/14 Market Avenue	0.81	0.0	9,400	53,159	56,250
TOTAL		1.12	36.37	134,335	758,404	836,846

NOTE: No reference could be found to the vacant land measuring approximately 7,500 square feet, located at 443/45 Main Street. For the purposes of this study, private ownership has been assumed.

APPENDIX N (Continued)

¹Structures which do not form part of the final inventory have been excluded.

²Represents the average rate calculated from the 1975 Business Premises List, Procedure 1.

³Approximate gross ground floor areas were calculated by adding between 15% and 20% to net areas, depending on occupancy.

⁴Total gross building areas were calculated by adding between 15% and 20% to net areas, depending on occupancy.

Source: 1975 Business Premises List, Procedure 1, City of Winnipeg, Environmental Planning Department.

APPENDIX O

Assessed Values of Properties within Study Area (in \$)

Realty Roll Number	Address of Building	Name and Address of Owner	Date of Construction	Land Assessment Value in \$	Building Assessment Value in \$	Total Assessment Value in \$
607 600	Bannatyne Avenue	M. E. Morgan, c/o F. J. Devrieze, 3 Lombard Place	1953	36,060	350	36,410
607 700	Bannatyne Avenue	City of Winnipeg, Pumping Station	1951	11,060	43,200	54,260
607 740	4 Bannatyne Avenue	City of Winnipeg, surplus land	--	7,410	--	7,410
607 780	4 Bannatyne Avenue	Boland Bros. Ltd., 4 Bannatyne Avenue	1928	--	2,700	2,700
627 860	479/81 Main Street	R. Fleishman & others, 606-1305 Grant Avenue	1894	7,360	1,550	8,910
627 880	455/61 Main Street	West Palace Ltd., 26 Rockcliff Road	1911	25,260	110,100	135,360
627 930	185 Bannatyne Avenue	Fletcher Investments Ltd., 185 Bannatyne Avenue	1906	17,280	42,800	60,080
627 960	441 Main Street, corner of Bannatyne Avenue	Imperial Bank of Commerce, c/o Dominion Realty Co. Ltd., Box 145 Commerce Ct. Postal Station, Toronto, Ontario	1906	23,040	53,900	76,940
627 970	189 Bannatyne Avenue	J. W. McDonald, 449 Lyndale Avenue	1948	9,480	4,700	14,180
627 990	181/83 Bannatyne Avenue	Dominium Tar & Chemical Co. Ltd., 181 Bannatyne Avenue	1907	15,280	26,700	41,980
628 001	157/79 Bannatyne Avenue	167 Bannatyne Ltd., 167 Bannatyne Avenue	1904	76,670	192,900	269,570
628 041	174 Market Avenue	Provincial & City Governments, Department of Municipal Affairs, 103-116 Edmonton St.	1970	93,200	836,150	929,350
628 140	180 Market Avenue	City of Winnipeg (Tax Sale)	1913	24,350	91,700	116,050
628 180	Bannatyne Avenue	167 Bannatyne Ltd., 167 Bannatyne Avenue	--	17,430	--	17,430
628 200	141 Bannatyne Avenue	Mid-West Garments Ltd., 65 Rorie Street	1903	13,950	19,400	33,350

APPENDIX O (Continued)

Realty Roll Number	Address of Building	Name and Address of Owner	Date of Construction	Land Assessment Value in \$	Building Assessment Value in \$	Total Assessment Value in \$
628 220	137 Bannatyne Avenue	Geo. Smook & Son Ltd., 311 Chambers Street ⁵	1887	8,930	5,450	14,380
628 240	127 Bannatyne Avenue	J. Richardson & Sons Ltd., One Lombard Place	1957	23,270	16,400	39,670
628 270	123 Bannatyne Avenue	Max Waldhorn 621 Balmoral St.	1900	10,510	15,900	26,410
628 291	113/17 Bannatyne Avenue	D. H. Bain Ltd., c/o 905 Berry Street	1899	27,690	30,750	58,440
700 000	483/83½ Main Street	R. Fleishman & others, 606-1305 Grant Avenue	1894	8,060	5,250	13,310
700 010	487 Main Street	Agro Holdings Ltd., 487 Main Street	1951	6,870	14,600	21,470
700 020	491/91½ Main Street	P. M. Thiessen, 137 Handsart Boulevard	1896	7,460	9,550	17,010
700 030	499/501 Main Street	Condor Investments Ltd., 854 East Cordova Street, Vancouver, B.C.	1900	7,460	9,250	16,710
700 041	507 Main Street	Est. of J. Fleishman, c/o R. Fleishman & others, 606-1305 Grant Avenue	1938	14,920	9,450	24,370
700 060	515 Main Street	W. & P. Kluner, 442 Burrin Avenue	1959	18,580	27,800	46,380
700 230	136 Market Avenue	Modern Woman Ltd., c/o M. B. Steinkopf, 1301 Ellice Ave.	1905	42,240	131,450	173,690
700 320	116 Market Avenue	S. C. Oretsky, 305 Burrows Avenue	1903	18,540	7,700	26,240
700 340	112/14 Market Avenue	Market Building Ltd., 708 Broadway Avenue	1902	16,410	56,200	72,610
700 360	90 Market Avenue	Cronkhite Ltd. (Winnipeg), 90 Market Avenue	1951	42,080	48,300	90,380
700 480	Bannatyne Avenue	D. H. Bain Ltd., 905 Berry Street	--	17,350	950	18,300

Source: 1975 Business Premises List, Procedure 1, City of Winnipeg Environmental Planning Department and 1976 Realty Assessment Roll, Folio #1965, City of Winnipeg (Inner City), Assessment Department.

APPENDIX P

Warehouse Survey, Winnipeg

July 1976

General Summation

Building Location	Owners' Intentions				Significant Factors					Remarks
	To Sell	To Develop	To Speculate	Owner Occupies Part/Full	Building Vital to Operation	Existing Railway Tracks	Future Develop. (Ped Mall)	Historical Value to City	Public Subsidy or Concession	
	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	Pos. Neg.	
115/17 Bannatyne	●									Sold shortly after survey ¹
123 Bannatyne	●		●	●	●	●	●	●	●	Recent sale
137 Bannatyne	●		●	●	●	●	●	●	●	
141 Bannatyne		●	●	●	●		●	●	●	Will relocate if costs are paid
157/79 Bannatyne		●	●	●	●	●	●	●	●	Will relocate if costs are paid
181/83 Bannatyne	●		●	●	●	●	●	●	●	Will relocate if costs are paid
185/87 Bannatyne	●	●	●	●	●	●	●	●	●	Will relocate if costs are paid
441 Main Street		●	●	●	●	●	●	●	●	Will negotiate
112/14 Market	●		●	●	●	●	●	●	●	
116/18 Market	●		●	●	●	●	●	●	●	
136 Market	●		●	●	●	●	●	●	●	

¹No further information available.

APPENDIX P (Continued)

Building Location	Owner Occupied		Intention to Sell		Selling Value in \$ per Square Feet												Intention to Develop	Development Value in \$ per Sq. Ft.					Remarks					
	Pos.	Neg.	Pos.	Neg.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Pos.	Neg.	10		20	30	40	50	
																				Pos.	Neg.							
115/17 Bannatyne																												Sold shortly after survey ¹
123 Bannatyne																												
137 Bannatyne																												Recent sale
141 Bannatyne																												Based on recent sale
157/79 Bannatyne																												Based on relocation
181/83 Bannatyne																												Based on relocation
185 Bannatyne																												Value not indicated
441 Main Street																												Value not indicated
112/14 Market																												
116/18 Market																												
136 Market																												

¹ No further information available.

APPENDIX Q

Hard and Soft Costs of Recycling to Retail, Office and Residential Uses (All Areas are in Square Feet)

Realty Roll Number	Address of Building ¹	Proposed Retail Area ²			Recycling ³ Costs in \$		Proposed Office Area	Recycling ³ Costs in \$	
		Ground Floor Area	Remainder Area	Total Area	Minimum	Optimum		Minimum	Optimum
627 880	455/61 Main Street	10,500	6,174	16,674	250,110	333,480	24,693	493,860	617,325
627 930	185 Bannatyne Avenue	9,000	9,000	18,000	270,000	360,000	20,250	405,000	506,250
627 960	441 Main Street	5,400	2,326	7,726	115,890	154,520	8,137	161,740	203,425
627 990	181/83 Bannatyne Avenue	6,250	6,250	12,500	187,500	250,000	15,648	312,960	391,200
628 001	157/79 Bannatyne Avenue	36,000	35,500	71,500	1,072,500	1,430,000	89,250	1,785,000	2,231,250
628 200	141 Bannatyne Avenue	7,500	7,500	15,000	225,000	300,000	11,450	229,000	286,250
628 220	137 Bannatyne Avenue	2,500	2,500	5,000	75,000	100,000	3,750	75,000	93,750
628 270	123 Bannatyne Avenue	4,560	4,559	9,119	136,785	182,380	6,839	136,780	170,975
628 291	113/17 Bannatyne Avenue	10,225	10,225	20,450	306,750	409,000	16,297	325,940	407,425
700 230	136 Market Avenue	24,000	18,000	42,000	630,000	840,000	71,500	1,430,000	1,787,500
700 320	116 Market Avenue	9,000	9,000	18,000	270,000	360,000	4,500	90,000	112,500
700 340	112/14 Market Avenue	9,400	9,400	18,800	282,000	376,000	18,725	374,500	468,125
TOTAL		134,335	120,434	254,769	3,821,535	5,095,380	291,039	5,820,780	7,275,975

APPENDIX Q (Continued)

Realty Roll Number	Address of Building ¹	Proposed Residential Area	Recycling ³ Costs in \$		Total Building Area	Total Costs in \$					
			Minimum	Optimum		Recycling Costs in \$		Overhead Costs ⁴ in \$		Total Costs in \$	
						Minimum	Optimum	Minimum	Optimum	Minimum	Optimum
627 880	455/61 Main Street	24,693	617,325	740,790	66,060	1,361,295	1,691,595	408,389	507,479	1,769,684	2,199,074
627 930	185 Bannatyne Avenue	20,250	506,250	607,500	58,500	1,181,250	1,473,750	354,375	442,125	1,535,625	1,915,875
627 960	441 Main Street	8,137	203,425	244,110	24,000	482,055	602,055	144,616	180,616	626,671	782,671
627 990	181/83 Bannatyne Avenue	15,647	391,175	469,410	43,795	891,635	1,110,610	267,491	333,183	1,159,126	1,443,793
628 001	157/79 Bannatyne Avenue	89,250	2,231,250	2,677,500	250,000	5,088,750	6,338,750	1,526,625	1,901,625	6,615,375	8,240,375
628 200	141 Bannatyne Avenue	11,450	286,250	343,500	37,900	740,250	929,750	222,075	278,925	962,325	1,208,675
628 220	137 Bannatyne Avenue	3,750	93,750	112,500	12,500	243,750	306,250	73,125	91,875	316,875	398,125
628 270	123 Bannatyne Avenue	6,839	170,975	205,170	22,797	444,540	558,525	133,362	167,557	577,902	726,082
628 291	113/17 Bannatyne Avenue	16,297	407,425	488,910	53,044	1,040,115	1,305,335	312,034	391,601	1,352,149	1,696,936
700 230	136 Market Avenue	71,500	1,787,500	2,145,000	185,000	3,847,500	4,772,500	1,154,250	1,431,750	5,001,750	6,204,250
700 320	116 Market Avenue	4,500	112,500	135,000	27,000	472,500	607,500	141,750	182,250	614,250	789,750
700 340	112/14 Market Avenue	18,725	468,125	561,750	56,250	1,124,625	1,405,875	337,387	421,762	1,462,012	1,827,637
TOTAL		291,038	7,275,950	8,731,140	836,846	16,918,265	21,102,495	5,075,479	6,330,748	21,993,744	27,433,243

¹ Structures which do not form part of the inventory have been excluded.

² The inventory is based on an average structure of six floors with two floors allocated to each of the three basic functions.

³ Recycling costs were based on the following rates:

Retail Conversion	Min. \$15.00 per sq. ft.; Opt. \$20.00 per sq. ft.
Office Conversion	Min. \$20.00 per sq. ft.; Opt. \$25.00 per sq. ft.
Residential Conversion (apts.)	Min. \$25.00 per sq. ft.; Opt. \$30.00 per sq. ft.

⁴ Soft or overhead costs were based on 30% of hard or construction costs.

Source: Information was based on discussions with various consultants, including Hanscomb Roy Associates and Aronovitch and Leipsic, Winnipeg.

APPENDIX R

Summation of Minimum Hard and Soft Costs of Recycling to Retail, Office and Residential Uses

(All areas and values are in square feet and \$ respectively)

Realty Roll Number	Address of Building	Conversion Costs to Retail	Conversion Costs to Office	Overhead Costs at 30%	Total Costs to Retail and Office	Additional Costs by Incorporating Residential (Inc. O/Heads)	Total Costs to Retail, Office and Residential
627 880	455/61 Main Street	250,110	987,720	371,349	1,609,179	160,505	1,769,684
627 930	185 Bannatyne Avenue	270,000	810,000	324,000	1,404,000	131,625	1,535,625
627 960	441 Main Street	115,890	325,480	132,411	573,780	52,890	626,671
627 990	181/83 Bannatyne Avenue	187,500	625,920	244,026	1,057,446	101,680	1,159,126
628 001	157/79 Bannatyne Avenue	1,072,500	3,570,000	1,392,750	6,035,250	580,125	6,615,375
628 200	141 Bannatyne Avenue	225,000	458,000	204,900	887,900	74,425	962,325
628 220	137 Bannatyne Avenue	75,000	150,000	67,500	292,500	24,375	316,875
628 270	123 Bannatyne Avenue	136,785	273,560	123,103	533,448	44,453	577,902
628 291	113/117 Bannatyne Avenue	306,750	651,880	287,589	1,246,219	105,930	1,352,149
700 230	136 Market Avenue	630,000	2,860,000	1,047,000	4,537,000	464,750	5,001,750
700 320	116 Market Avenue	270,000	180,000	135,000	585,000	29,250	614,250
700 340	112/14 Market Avenue	282,000	749,000	309,300	1,340,300	121,712	1,462,012
TOTAL		3,821,535	11,641,560	4,638,928	20,102,023	1,891,720	21,993,744

Source: Based on Discussions with various property consultants in Winnipeg.

APPENDIX 8

Analysis of Market Value on Rental Structure when Recycling to Residential, Retail and Office Use

		Residential Use				Retail and Office Use			
		Gross rental in \$/sq ft	Expenses in \$/sq ft	Net rental in \$/sq ft	Investment rate in \$/sq ft (at 13%)	Gross rental in \$/sq ft	Expenses in \$/sq ft	Net rental in \$/sq ft	Investment rate in \$/sq ft (at 13%)
Realty Roll Number	Address of Building	3.00	5.00	7.00	6.75	7.50	8.50		
627 880	455/61 Main Street	303,723	683,749	1,063,527	1,113,599	1,352,287	1,670,399	Market value at 100% efficiency	
		242,978	546,999	850,821	890,879	1,081,829	1,336,319	Market value at 80% efficiency	
		802,522	802,522	802,522	967,161	967,161	967,161	Recycling costs	
		-559,544	-255,523	48,299	-76,282	114,668	369,158	Market value/break-even in \$	
627 930	185 Bannatyne Avenue	249,075	560,722	872,167	1,029,690	1,250,392	1,544,535	Market value at 100% efficiency	
		199,260	448,577	697,734	823,752	1,000,313	1,235,628	Market value at 80% efficiency	
		658,125	658,125	658,125	877,500	877,500	877,500	Recycling costs	
		-458,865	-209,548	39,609	-53,748	122,813	358,128	Market value/break-even in \$	
627 960	441 Main Street	100,085	225,313	350,460	427,031	518,561	640,547	Market value at 100% efficiency	
		80,068	180,250	280,368	341,624	414,848	512,438	Market value at 80% efficiency	
		264,452	264,452	264,452	362,219	362,219	362,219	Recycling costs	
		-184,384	-84,202	15,916	-20,595	52,629	150,219	Market value/break-even in \$	
627 990	181/83 Bannatyne Avenue	192,458	433,265	673,916	757,744	920,158	1,136,616	Market value at 100% efficiency	
		153,966	346,612	539,132	606,195	736,126	909,292	Market value at 80% efficiency	
		508,527	508,527	508,527	650,598	650,598	650,598	Recycling costs	
		-354,561	-161,915	30,605	-44,403	85,528	258,694	Market value/break-even in \$	
628 001	157/79 Bannatyne Avenue	1,097,775	2,471,332	3,843,997	4,327,390	5,254,917	6,491,085	Market value at 100% efficiency	
		878,220	1,977,065	3,075,197	3,461,912	4,203,933	5,192,868	Market value at 80% efficiency	
		2,900,625	2,900,625	2,900,625	3,714,750	3,714,750	3,714,750	Recycling costs	
		-2,022,405	-923,560	174,572	-252,838	489,183	1,478,118	Market value/break-even in \$	
628 200	141 Bannatyne Avenue	140,835	317,050	493,151	712,034	864,650	1,068,051	Market value at 100% efficiency	
		112,668	253,640	394,520	569,627	691,720	854,440	Market value at 80% efficiency	
		372,125	372,125	372,125	590,200	590,200	590,200	Recycling costs	
		-259,457	-118,485	22,395	-20,573	101,520	264,240	Market value/break-even in \$	
628 220	137 Bannatyne Avenue	46,125	103,837	161,512	235,550	286,037	353,325	Market value at 100% efficiency	
		36,900	83,069	129,209	188,440	228,829	282,660	Market value at 80% efficiency	
		121,875	121,875	121,875	195,000	195,000	195,000	Recycling costs	
		-84,975	-38,806	7,334	-6,560	33,829	87,660	Market value/break-even in \$	
628 270	123 Bannatyne Avenue	84,119	189,371	294,555	429,589	521,667	644,384	Market value at 100% efficiency	
		67,295	151,496	235,644	343,671	417,333	515,507	Market value at 80% efficiency	
		222,267	222,267	222,267	355,634	355,634	355,634	Recycling costs	
		-154,972	-70,771	13,377	-11,963	61,699	159,873	Market value/break-even in \$	

APPENDIX S (Continued)

		Residential Use				Retail and Office Use			
		Gross rental in \$/sq ft	3.00	5.00	7.00	6.75	7.50	8.50	Gross rental in \$/sq ft
		Expenses in \$/sq ft	1.40	1.40	1.40	3.25	3.25	3.25	Expenses in \$/sq ft
		Net rental in \$/sq ft	1.60	3.60	5.60	3.50	4.25	5.25	Net rental in \$/sq ft
		Investment rate in \$/sq ft (at 13%)	12.30	27.69	43.07	26.92	32.69	40.38	Investment rate in \$/sq ft (at 13%)
Realty Roll Number	Address of Building								
628 291	115/17 Bannatyne Avenue	200,453	451,263	701,911	989,229	1,201,259	1,483,843		Market value at 100% efficiency
		160,362	361,010	561,528	791,383	961,007	1,187,075		Market value at 80% efficiency
		529,652	529,652	529,652	822,497	822,497	822,497		Recycling costs
		-369,290	-168,642	31,876	-31,113	138,510	364,578		Market value/break-even in \$
700 230	136 Market Avenue	879,450	1,979,835	3,079,505	3,055,420	3,710,315	4,583,130		Market value at 100% efficiency
		703,560	1,583,868	2,463,603	2,444,336	2,968,252	3,666,504		Market value at 80% efficiency
		2,323,750	2,323,750	2,323,750	2,678,000	2,678,000	2,678,000		Recycling costs
		-1,620,190	-739,882	139,853	-233,664	290,252	988,504		Market value/break-even in \$
700 320	116/118 Market Avenue	55,350	124,605	193,815	685,700	735,525	908,550		Market value at 100% efficiency
		44,280	99,684	155,052	484,560	588,420	726,840		Market value at 80% efficiency
		146,250	146,250	146,250	468,000	468,000	468,000		Recycling costs
		-101,970	-46,566	8,802	16,560	120,420	258,840		Market value/break-even in \$
700 340	112/114 Market Avenue	230,317	518,495	806,485	1,010,173	1,226,692	1,515,259		Market value at 100% efficiency
		184,253	414,796	645,188	808,138	981,353	1,212,207		Market value at 80% efficiency
		608,562	608,562	608,562	853,450	853,450	853,450		Recycling costs
		-424,309	-193,766	36,626	-45,312	127,903	358,757		Market value/break-even in \$

NOTE: Table excludes acquisition costs.

Source: Based on discussions with various property consultants in Winnipeg.

APPENDIX T

Analysis of Market Value on Rental Structure when Recycling to Retail and Office Use

Realty Roll Number	Address of Building ¹	6.75	7.00	7.50	8.00	8.50	9.00	9.50	Gross rental in \$/sq ft
		3.25	3.25	3.25	3.25	3.25	3.25	3.25	Expenses in \$/sq ft ²
		3.50	3.75	4.25	4.75	5.25	5.75	6.25	Net rental in \$/sq ft
		26.92	28.84	32.69	36.53	40.38	44.23	48.07	Investment rate in \$/sq ft (at 13%)
627 880	455/61 Main	1,778,335	1,905,170	2,159,501	2,413,171	2,667,502	2,921,833	3,175,504	Market value at 100% efficiency
		1,422,668	1,524,136	1,727,600	1,930,536	2,134,001	2,337,467	2,540,403	Market value at 80% efficiency
		1,816,650	1,816,650	1,816,650	1,816,650	1,816,650	1,816,650	1,816,650	Acquisition and recycling costs
		-393,982	-292,514	-89,050	113,886	317,351	520,817	723,753	Market value/break-even in \$
627 930	185 Bannatyne	1,574,820	1,687,140	1,912,365	2,137,005	2,362,230	2,587,455	2,812,095	Market value at 100% efficiency
		1,259,856	1,349,712	1,529,892	1,709,604	1,889,784	2,069,964	2,249,676	Market value at 80% efficiency
		1,696,500	1,696,500	1,696,500	1,696,500	1,696,500	1,696,500	1,696,500	Acquisition and recycling costs
		-436,644	-346,788	-166,608	13,104	193,284	373,464	553,176	Market value/break-even in \$
627 960	441 Main	646,080	692,160	784,560	876,720	969,120	1,061,520	1,153,680	Market value at 100% efficiency
		516,864	553,728	627,648	701,376	775,296	848,461	922,944	Market value at 80% efficiency
		693,781	693,781	693,781	693,781	693,781	693,781	693,781	Acquisition and recycling costs
		-176,917	-140,053	-66,133	7,595	81,515	154,680	229,163	Market value/break-even in \$
627 990	181/83 Bannatyne	1,178,961	1,263,047	1,431,658	1,599,831	1,768,442	1,937,052	2,105,225	Market value at 100% efficiency
		943,169	1,010,437	1,145,326	1,279,864	1,414,753	1,549,641	1,684,180	Market value at 80% efficiency
		1,276,421	1,276,421	1,276,421	1,276,421	1,276,421	1,276,421	1,276,421	Acquisition and recycling costs
		-333,252	-265,984	-131,095	3,443	138,332	273,220	407,759	Market value/break-even in \$
628 001	157/79 Bannatyne	6,730,000	7,210,000	8,172,500	9,132,500	10,095,000	11,057,500	12,017,500	Market value at 100% efficiency
		5,384,000	5,768,000	6,538,000	7,306,000	8,076,000	8,846,000	9,614,000	Market value at 80% efficiency
		7,285,250	7,285,250	7,285,250	7,285,250	7,285,250	7,285,250	7,285,250	Acquisition and recycling costs
		-1,901,250	-1,517,250	-747,250	20,750	790,750	1,560,750	2,328,750	Market value/break-even in \$
628 200	141 Bannatyne	1,020,260	1,093,036	1,238,951	1,384,487	1,530,402	1,676,317	1,821,853	Market value at 100% efficiency
		816,214	874,428	991,160	1,107,589	1,224,321	1,341,053	1,457,482	Market value at 80% efficiency
		1,077,400	1,077,400	1,077,400	1,077,400	1,077,400	1,077,400	1,077,400	Acquisition and recycling costs
		-261,186	-202,972	-86,240	30,189	146,921	263,653	380,082	Market value/break-even in \$
628 220	137 Bannatyne	336,538	360,500	408,625	456,625	504,750	552,875	600,875	Market value at 100% efficiency
		269,230	288,400	326,900	365,300	403,800	442,300	480,700	Market value at 80% efficiency
		355,000	355,000	355,000	355,000	355,000	355,000	355,000	Acquisition and recycling costs
		-85,770	-66,600	-28,100	10,300	48,800	87,300	125,700	Market value/break-even in \$
628 270	123 Bannatyne	613,695	657,465	745,233	832,774	920,542	1,008,311	1,095,851	Market value at 100% efficiency
		490,956	525,972	596,186	666,219	736,433	806,648	876,681	Market value at 80% efficiency
		647,433	647,433	647,433	647,433	647,433	647,433	647,433	Acquisition and recycling costs
		-156,477	-121,461	-51,247	18,786	89,000	159,215	229,248	Market value/break-even in \$
628 291	115/17 Bannatyne	1,427,944	1,529,788	1,734,008	1,937,697	2,141,916	2,346,136	2,549,825	Market value at 100% efficiency
		1,142,355	1,223,830	1,387,206	1,550,157	1,713,532	1,876,908	2,039,860	Market value at 80% efficiency
		1,511,439	1,511,439	1,511,439	1,511,439	1,511,439	1,511,439	1,511,439	Acquisition and recycling costs
		-369,084	-287,609	-124,233	38,718	202,093	365,469	528,421	Market value/break-even in \$

APPENDIX T (Continued)

Realty Roll Number	Address of Building ¹	6.75	7.00	7.50	8.00	8.50	9.00	9.50	Gross rental in \$/sq ft
		3.25	3.25	3.25	3.25	3.25	3.25	3.25	Expenses in \$/sq ft ²
		3.50	3.75	4.25	4.75	5.25	5.75	6.25	Net rental in \$/sq ft
		26.92	28.84	32.69	36.53	40.38	44.23	48.07	Investment rate in \$/sq ft (at 13%)
700 230 136 Market		4,980,200	5,335,400	6,047,650	6,758,050	7,470,300	8,182,550	8,892,950	Market value at 100% efficiency
		3,984,160	4,268,320	4,838,120	5,406,440	5,976,240	6,546,040	7,114,360	Market value at 80% efficiency
		4,995,000	4,995,000	4,995,000	4,995,000	4,995,000	4,995,000	4,995,000	Acquisition and recycling costs
		-1,010,840	-726,680	-156,880	411,440	981,240	1,551,040	2,119,360	Market value/break-even in \$
700 320 116/118 Market		126,840	778,680	882,630	986,310	1,090,260	1,194,210	1,297,890	Market value at 100% efficiency
		581,472	622,944	706,104	789,048	872,208	955,368	1,038,312	Market value at 80% efficiency
		720,000	720,000	720,000	720,000	720,000	720,000	720,000	Acquisition and recycling costs
		-138,528	-97,056	-13,896	69,048	152,208	235,368	318,312	Market value/break-even in \$
700 340 112/14 Market		1,514,250	1,622,250	1,838,812	2,054,812	2,271,375	2,487,937	2,703,937	Market value at 100% efficiency
		1,211,400	1,297,800	1,471,049	1,643,849	1,817,100	1,990,349	2,163,150	Market value at 80% efficiency
		1,621,550	1,621,550	1,621,550	1,621,550	1,621,550	1,621,550	1,621,550	Acquisition and recycling costs
		-410,150	-323,750	-150,501	22,299	195,550	368,799	541,600	Market value/break-even in \$

¹Structures which do not form part of the inventory have been excluded.

²Expenses at \$3.25 per square foot represent the average for this type of accommodation in this location, excluding mortgage repayments; discussions with Aronovitch and Leipsic, Winnipeg.

Source: Based on discussions with various property consultants in Winnipeg.

APPENDIX U

Correlation of Assessed and Sample Survey Values for Recycling to Retail and Office Use

Warehouse Location	Assessed Values			Sample Survey Values			Remarks
	Property Acquisition & Recycling Costs in \$ Per Sq. Ft.	Gross Investment Rate in \$ Per Sq.Ft.	Gross Rental in \$ per Sq. Ft. Per Annum	Property Acquisition & Recycling Costs in \$ Per Sq. Ft.	Gross Investment Rate in \$ Per Sq.Ft.	Gross Rental in \$ per Sq. Ft. Per Annum	
115/17 Bannatyne Avenue	1,511,439	33.50	7.60	—	—	—	No values given
123 Bannatyne Avenue	647,433	33.50	7.60	680,490	35.11	7.81	
137 Bannatyne Avenue	355,000	33.50	7.60	373,125	35.11	7.81	
141 Bannatyne Avenue	1,077,400	33.50	7.60	—	—	—	Value based on relocation
157/79 Bannatyne Avenue	7,285,250	33.50	7.60	—	—	—	Value based on relocation
181/83 Bannatyne Avenue	1,276,421	33.50	7.60	—	—	—	Value based on relocation
185/87 Bannatyne Avenue	1,696,500	33.50	7.60	1,743,300	35.05	7.80	Will remain and upgrade
441 Main Street	693,781	33.50	7.60	—	—	—	
112/14 Market Avenue	1,621,550	33.50	7.60	1,659,375	34.70	7.76	
116/18 Market Avenue	720,000	33.50	7.60	800,550	34.88	7.78	
136 Market Avenue	5,462,000	33.50	7.60	5,725,750	36.51	7.98	

NOTE: Assessed values have been averaged.

APPENDIX V

Account to the Private Sector in \$

Building Location	Property Acquisition ¹	Recycling to Retail, Office or Infill ²	Total	Remarks
115/17 Bannatyne Avenue	265,220	1,246,219	1,511,439	
123 Bannatyne Avenue	110,565*	533,448	644,013	*Based on survey
127 Bannatyne Avenue	100,000	1,645,000	1,745,000	
137 Bannatyne Avenue	62,500	292,500	355,000	Infill development
141 Bannatyne Avenue	189,500	887,900	1,077,400	
143/55 Bannatyne Avenue	122,000	2,252,250	2,374,250	Infill development
157/79 Bannatyne Avenue	1,250,000	6,035,250	7,285,250	
181/83 Bannatyne Avenue	218,975	1,057,446	1,276,421	
185/87 Bannatyne Avenue	295,000*	1,404,000	1,699,000	*Based on survey
441 Main Street	120,000	573,781	693,781	
453 Main Street	124,000	2,000,000	2,124,000	Infill development
455/61 Main Street	330,300	1,486,350	1,816,650	
176/78 Market Avenue	169,000	2,350,000	2,519,000	Infill development
136 Market Avenue	1,100,000*	4,537,000	5,637,000	*Based on survey
116/18 Market Avenue	125,000*	585,000	710,000	*Based on survey
112/14 Market Avenue	250,000*	1,340,000	1,590,000	*Based on survey
Fun/Entertainment Centre			5,000,000	Portion of development ³
TOTAL EXPENDITURE	4,832,060	28,226,144	38,058,204	

APPENDIX V (Continued)

¹Land with Main Street frontage based on value of \$12.50 per square foot and \$7.50 per square foot elsewhere.

²Infill development based on height of adjoining building and average construction cost of \$35.00 per square foot.

³Portion of this amount would cover the Marina.

APPENDIX W

Account to Public Sector in \$

Property/Land Location	Property/Land Acquisition ¹	Expropriation ²	Property/Land Development	Return on Sale of Expropriated Property	Total Cost	Remarks
Bain Property	296,000				296,000	
141 Bannatyne Avenue		550,000		189,500	360,500	
157/79 Bannatyne Avenue		3,000,000		1,250,000	1,750,000	
479/515 Main Street		558,000			558,000	Public open space
90 Market Avenue	930,000	300,000			1,230,000	
CN Properties	244,375		2,170,000 ³		2,414,375	Development of covered mall
CN Properties	480,000				480,000	
Fun/Entertainment Centre			5,000,000 ⁴		5,000,000	Portion of development
Miscellaneous Returns				63,000	63,000	Portion of Rorie Street
TOTAL EXPENDITURE	1,950,375	4,408,000	7,170,000	1,502,500	12,025,875	

¹Land with Main Street frontage based on value of \$12.50 per square foot and \$5.00 per square foot elsewhere.

²Expropriation costs were based on approximately double the cost of acquisition in accordance with precedent in Market and Bannatyne Avenues. Compensation was limited to the cost of relocation for the purposes of this exercise.

³The development of the covered mall was based on a cost of \$35.00 per square foot; discussions with Hanscomb Roy, Quality Surveyors, Winnipeg.

⁴Portion of this amount would cover the Marina.

BIBLIOGRAPHY

9.0 BIBLIOGRAPHY

9.1 Books and Reports

- Advisory Council of Historic Preservation. Guidelines for State Historic Preservation Legislation. Washington, D.C.: 1972.
- Anderson, Martin. The Federal Bulldozer. New York: McGraw-Hill, 1966.
- Artibise, Alan Francis Joseph. A Social History of Urban Growth. Montreal and London: McGill-Queens University Press, 1975.
- Artibise, Alan Francis Joseph and Edward H. Dahl. Winnipeg in Maps. Ottawa: Public Archives of Canada, 1975.
- City of Vancouver Planning Department. Restoration Report. Vancouver: 1974.
- _____. Vancouver's Heritage. Vancouver: 1974.
- Costonis, John J. Space Adrift: Landmark Preservation and the Marketplace. University of Illinois Press, 1974.
- Cutler, Laurence Stephan and Sherrie Stephens. Recycling Cities for People. Boston: Cahners Books International Corporation, 1976.
- Damas and Smith. Warehouse Conversion Study. Winnipeg: 1974.
- Department of Environmental Planning, City of Winnipeg. Historic Winnipeg Restoration Study. Winnipeg: 1974.
- _____. Recycling Historic Winnipeg. Winnipeg: May 1976.
- _____. Winnipeg CMA Housing and Population Projections by Community Committee Area and Census Tract and Traffic Zone. Winnipeg: January 1976.
- Freeman, Milton M. R. People Pollution. Montreal and London: McGill-Queens University Press, 1974.

- Galt, George. Investing in the Past. Heritage Canada. Ottawa: November 1974.
- Gebhard, David. Instant History - the Invention of a Tradition. Paper presented to the 25th Annual Meeting of the Society of Architectural Historians, San Francisco. January 1972.
- General Urban Design Systems Corporation. Urbex Winnipeg. Ministry of State for Urban Affairs and the Department of Public Works. Ottawa: March 1974.
- Graham, John W. A Guide to the Architecture of Greater Winnipeg, the Red River Settlement, 1831-1960. Winnipeg: University of Manitoba Press, 1960.
- Healy, W. T. Winnipeg's Early Days. Winnipeg: Stovel Company Limited, 1927.
- Heritage Canada. A Brown Paper on Legislation. Ottawa: 1974.
- Jacobs, Jane. The Death and Life of Great American Cities. New York: Random House, 1961.
- Kerr, D. Metropolitan Dominance in Canada. A geographical interpretation edited by Warkentin and others, 1967.
- Kliment, S. A., editor. Neighborhood Conservation. New York: Whitney Library of Design, Watson-Guptill Publications, 1975.
- Kuz, Tony, editor. Winnipeg 1874-1974. Winnipeg: Manitoba Department of Industry and Commerce, September 1974.
- Lucas, F. C. An Historical Diary of the City of Winnipeg, Canada. Winnipeg: Cartwright and Lucas, 1923.
- McWilliams, Margaret (Stovel). Manitoba Milestones. Toronto: J. M. Dent and Sons, 1928.
- Metropolitan Corporation of Greater Winnipeg Planning Division. South Point Douglas Economic Land Use Analysis. Winnipeg: February 1966.
- Morton, W. L. Manitoba: A History. Toronto: University of Toronto Press, 1957.

- National Trust for Historic Preservation. Economic Benefits of Preserving Old Buildings. Washington, D.C.: Preservation Press, 1976.
- Pacey, Elizabeth. Report on Taxation in the City of Halifax. Institute of Public Affairs of Dalhousie University, 1967.
- Papageorgiou, Alexandros. Continuity and Change. New York: Praeger, 1971.
- Plunkett, Thomas J. Financial Structure and the Decision-Making Process of Canadian Municipal Government. Central Mortgage and Housing Corporation, 1972.
- Robinson, A. J. Economic Evaluation of Municipal Expenditures. Toronto: Canadian Tax Foundation, 1971.
- Vance, J. E., Jr. The Merchants of the World. New Jersey: Prentice-Hall, 1970.
- Wolf, Peter. The Future of the City. New York: Whitney Library of Design, Watson Guptill Publications, 1974.

9.2 Articles and Periodicals

- Cantacuzino, S. (editor). "New Uses for Old Buildings." Architectural Review 151 (May 1972).
- Colby, Charles C. "Centrifugal and Centripetal Forces in Urban Geography." Annals of the Association of American Geographers 23 (March 1933).
- Conserving Urbanity in Norwich. Urban Land (June 1976).
- Costonis, John J. "The Chicago Plan: Incentive Zoning and the Preservation of Urban Landmarks." Harvard Law Review 85 (1976).
- Dyslin, George. "That Wonderful Haligonian Time Machine." New Dimensions (February/March 1976).
- Farrell. "Our Existing Buildings are a Valuable Resource like Coal in the Ground and Oil under the Sea." Royal Institute of British Architects Journal (April/June 1976).

- Harvey, A. L. "Adaptive Use." American Institute of Architects Journal 62 (August 1974).
- Hastings, J. C. G. (editorial director). "Manplan: Local Government." Architectural Review 148 (July 1970).
- Houstoun, Lawrence O., Jr. "Defining what we want to Save." Urban Land (July/August 1975).
- Hoyt, Charles. "Sitting Ducks." Architectural Record 156 (December 1974).
 _____. "Distortions of Classic Models of Urban Structure." Land Economics, Vol. VL, Number 2 (May 1964): 199-212.
- Knott, Lawson B., Jr. "The Impact of Historic Preservation on Development and Land Use." Urban Land (July/August 1975).
- Latus, Mark. "Preservation and the Energy Crises." Historic Preservation 25 (April 1973).
- Murphy, John. "The Special Nature of Historic Area Zoning." Urban Land (July/August 1975).
- Peters, Richard C. "Towards a Redefinition of Preservation." Society of Architectural Historians Journal 31 (October 1972).
- Philips, R. A. J., Marc Denhez, George Galt and Gregory Brown. "Planning for Older Communities." Canadian Institute of Planners Forum (March 1976).
- Preston, Richard. "Transition Zone Structure - the Three Sector Hypothesis." Town Planning Review 39 (October 1968).
- Seetig, Michael Y. "Area Conservation as an Asset to Planning - not a Necessary Evil." Architectural Record 156 (December 1974).
 _____. "Preservation and Change in the Industrial Building." Ibid., 110-121.
- Smith, Baird. "Adaptive Use. A Survey of Construction Costs." Report. Special Issue. Advisory Council on Historic Preservation, Vol. 4, June 1976.

- Thompson, Elizabeth K. "Conservation in the Context of Change." Architectural Record 156 (December 1974).
- _____. "Restoration for Use." Society of Architectural Historians Journal 31 (October 1972).
- Tobriner, Stephen. "Save Buildings: for Whom and for What." Society of Architectural Historians Journal 31 (October 1972).
- Transfer of Development Rights. Urban Land (January 1975).
- Wichern, P. H., editor. The Development of Urban Government in the Winnipeg Area. A collection of materials from Government reports and student research papers. Vol. 1 of the series, Department of Political Studies, University of Manitoba.
- Wiedl, Michael F. "The Law of Historic Preservation." Urban Land (July/August 1975).

9.3 Other References

- Bellan, R. C. "The Development of Winnipeg as a Metropolitan Centre." Ph.D. Thesis, Columbia University, 1958.
- Hosse, H. A. "The Areal Growth and Functional Development of Winnipeg from 1875 to 1913." MA Thesis, University of Manitoba, 1956.
- Short, R. B. "The Wholesale Function in Winnipeg." MA Thesis, University of Manitoba, 1973.
- Henderson's City Directories of Winnipeg.
- Various Acts and Statutes at National level, particularly the relevant portions of the City of Winnipeg Act, the Municipal Act, the Planning Act and the Historic Sites Protection Act of Manitoba.
- Various newspaper articles in the Winnipeg Free Press and the Winnipeg Tribune.
- Various Publications by Heritage Canada.