A STUDY OF THE DEVELOPMENT OF WINNIPEG'S PLANNED SHOPPING CENTRES

by

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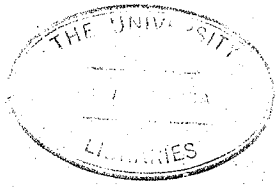
MASTER OF ARTS



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CHAPTER 1

INTRODUCTION

The aim of this thesis is to conduct a case study of the development of planned shopping centres in the North American city and an analysis of selected characteristics of this new form of retail nucleation. The case study area is Winnipeg, Manitoba, a city of approximately 600,000 in Western Canada.[1] The planned shopping centres of this city are also used for an analysis of selected shopping centre characteristics.

Chapter 1 is the presentation of the "model" against which the development of Winnipeg's shopping centres can be compared. The first few pages of this chapter demonstrate the changes that have occurred in the urban fabric of the North American city as a whole, over the past fifty years. The remainder of the chapter is an account of the corresponding changes that have taken place in the intra-urban retail structure. Also discussed is the affect these changes have had on the central business districts (CBD's) of cities in North America.

General Changes in the Urban Fabric of the North American City

Researchers studying the internal structure of the North American city have identified many changes in the pattern of intra-urban land use over the past half century. An example of these changes is the progressive development and changes in the theories of urban land use. During the 1920's and 1930's

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[1] The estimated population of Metropolitan Winnipeg was 560,000 in June, 1973. This estimate was made by Statistics Canada.

the "concentric zone" theory was widely accepted as a model of land use in cities. Comparison of this model with the real world resulted in numerous incongruities. These incongruities were corrected to some extent in 1939 with the "sector" theory. By 1945, however, sufficient additional changes had occurred in the structure of intra-urban land use that the single nucleus theories such as the "concentric zone" and "sector" theories often failed to adequately represent the real world. As a result, the "multiple nucleii" theory was presented to overcome their deficiencies.[2]

The "concentric zone", "sector" and "multiple nucleii" theories of the structure of urban land use are now considered to be complimentary to each other. Their evolutionary development is indicative of the many changes that have taken place in the urban fabric and land use requirements for various activities. An example of these changes in land use requirements is in the

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[2]The "concentric zone" theory was presented by Burgess in 1925 as a model of intra-urban land use and land use changes. The model was a series of concentric circles representing zones of land use. At the centre was the CBD which dominated the land use structure with its retail, office, service and civic functions. Next to the CBD was a zone of transition and mixed land use with factories, warehouses and residential deterioration. The working class residential zone was immediately beyond this zone and the progressively better off lived in successive circular zones outwards from the CBD. Hoyt's "sector" theory was presented in 1939 after he had observed that not all of the "better" residential areas were beyond the "working class zone" and that the "zones" were not always circular. In many cities, for example, there were pie-shaped higher income residential areas radiating out from the CBD. There were also identifiable middle and lower income sectors in many cities. The "multiple nucleii" theory was proposed by Harris and Ullman in 1945 after they had observed that the intra-urban land use pattern did not always grow from a single centre as had once been the case but that residential growth often occurred around several distinct nucleii. These nucleii might be outlying retail areas, educational institutions, industrial sites or an airport, in addition to the CBD. These theories are presented in R. E. Park, E. W. Burgess and R. D. McKenzie, The City (Chicago, 1925), pp. 47-62; H. Hoyt, The Structure and Growth of Residential Areas in American Cities (Washington, 1939) and C. D. Harris and E. L. Ullman, "The Nature of Cities", Annals of the American Academy of Political and Social Science, Vol. 242, 1945, pp. 7-17.

manufacturing and warehousing activities which are no longer solely concentrated in the "zone of transition" that surrounded the CBD as per the "concentric zone" theory. They are now situated according to contemporary site and location requirements.[3] The location requirements of other elements of the urban fabric have also changed. These changes have been particularily noticeable in the intra-urban retail structure.

The Dominant CBD

The CBD has long dominated the retailing scene in the cities of North America. The highest order goods and services available in any one area were offered here. This was the point of greatest accessibility in the city. It took only a few minutes for most consumers to walk to a bus or streetcar stop and ride downtown for less frequently purchased goods. Everyday food, drug and variety items were available, however, in small neighbourhood oriented retail nucleations that were distributed throughout the residential areas.

Early Decentralization of Intra-Urban Retail Activity

The trend toward the decentralization of retail activity began with the significant shift of the population of large North American cities such as New York, Philadelphia and Chicago to the suburbs during the 1920's and 1930's. This early suburbanization was based on intra-urban mass transportation systems.[4]

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[3] R. B. Short, "The Wholesale Function in Winnipeg", unpublished Master's dissertation, Department of Geography, University of Manitoba, 1973.

[4] M. J. Proudfoot, "The Outlying Business Centres of Chicago" (unpublished Ph. D. dissertation, University of Chicago, 1936) and Inez K. Rolph, "The Population Pattern in Relation to Retail Buying", American Journal of Sociology, Vol. 38, 1932, pp. 368-376.

Most of these suburbanites were well-to-do executives and professionals. They moved to residential developments around commuter train stations where they had easy access to their downtown work places but away from the problems of the inner-city. Clusters of stores were opened next to these stations in order to take advantage of this new concentration of wealth. These retail clusters were usually located at seven to twelve mile distances from the CBD. It was more economical for the suburbanite to shop at this new intermediate level of retail nucleation than to go downtown for all but the highest level of goods and services. The range of goods offered and the size and number of stores in these outlying retail nucleations was smaller than in the downtown area but the morphology and internal distribution of stores was similar to that of the CBD. These clusters of stores did not seriously undermine the supremacy of the CBD but they were the forerunners of outlying retail nucleations that would do so. A new level of retail nucleations had been superimposed on the CBD - corner store system.

The Emergence of Planned Shopping Centres

During the post-World War II years of the 1940's the automobile became an increasingly important mode of intra-urban transportation. There was a corresponding decline in the use of public transportation for trips to work and to the store. It was soon discovered, however, that the existing street systems were not designed with the requirements of the automobile in mind and the relationship that had once existed between the shop and the street broke down when the prospective customer was driving his car.[5] The downtown became an unpleasant place to be as the narrow streets became more congested, parking

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[5]James S. Hornbeck (ed.), Stores and Shopping Centres (New York: McGraw-Hill Book Company Incorporated, 1962), pp. 103.

space became scarce and the noise level increased.

Retailers endeavoured to overcome these problems. In an effort to better relate to the automobile driving consumer, they spread their establishments along major arteries. Here they hoped to attract him on his way to and from work as they had been able to do at the mass transportation transfer points or terminals. This change did not serve the customer much better as these streets also became congested and parking was still inadequate.

There were additional factors that contributed to impending major changes in the intra-urban retail structure. During the 1940's there was a significant growth in consumer buying power. This growth was a function of a large increase in the population of urban areas, number of wage earners, average hourly wage and average disposable income, as housing costs dropped. Also, while the proportion of very high income families became smaller, there was a marked increase in the proportion of middle income families. Buying power grew as retailers were able to keep the prices of their goods from rising by introducing economies of scale and changes in their operations which resulted in reduced labour costs. These economies are exemplified by what took place in the food retailing industry. During the 1940's the average food store size increased while the actual number of outlets of many chains decreased. This reduction in store numbers also brought about cuts in labour costs which had already dropped as a result of the introduction of the self-service concept during the depression of the 1930's.[6] Many improvements were made but an effective way of relating to the car driving customer had yet to be implemented on a large scale.

Sears Roebuck was the first major American retailer to cater to the car driving public in an effective way. During the 1940's this department

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[6] G. Baker and B. Funaro, Shopping Centres: Design and Operation (New York: Reinholt Publishing Corporation, 1951), pp. 4-5.

store chain began to establish new outlets away from other existing department stores and the congested downtown area. Each new store was surrounded by spacious parking lots. The target was the new suburbanite who was tired of congested streets, the lack of car parking space and the long trip from his home to the CBD. He was one of millions of North Americans who had migrated away from the older city to the new subdivisions that began to mushroom in the urban fringes after the mid-1930's. This second great migration away from the city-centre was based on the automobile and septic tanks rather than the commuter train and other means of mass transportation that had enabled the first, smaller scale exodus to take place. While mass transportation oriented retail nucleations had met the needs of those who composed the first migration, they were not adequate to serve this new market because they lacked convenient parking space.

The first cluster of stores where adjacent parking space was provided was constructed in Baltimore, Md. in 1904. According to Simmons, this was the first retail development that could be called a planned shopping centre.[7] Hoyt states, however, that the first such shopping centre was built in Kansas City in 1924.[8] Despite this difference of opinion, these shopping centres were ahead of their time and exceptions to prevailing practice in retailing. Attempts were made to provide parking space behind the stores of the older, unplanned retail nucleations but this was found to be quite unsatisfactory as customers began to use the rear entrances that had been designed for deliveries

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[7]James W. Simmons, The Changing Pattern of Retail Location, Department of Geography Research Paper No. 93 (Chicago: University of Chicago Press, 1964), p. 10.

[8]Homer Hoyt, "Classification and Significant Characteristics of Shopping Centres", Readings in Urban Geography, Edited by Harold M. Mayer and Clyde F. Kohn. (Chicago: University of Chicago Press, 1959), p. 455.

and for the removal of garbage and space for parking was limited.

The planned shopping centre became popular during the 1940's. The aim of their developers was to tap the car driving market. Like Sears Roebuck, they wanted to gain access to the concentration of consumers in newly constructed residential areas. Conversely, homes in new subdivisions were sometimes sold on the basis of easy access to various amenities including a modern shopping centre.[9]

The primary consideration in the design of these planned shopping centres was to provide adequate parking space for customers' cars. There were other typical shopping centre characteristics. Most of the stores were accommodated under one roof. There was an integrated architecture and little variation in the floor area of the individual stores. In the first shopping centres, the stores were often arranged in a straight line that extended upwards to 2000 feet in length on occasion. As a variation to this theme and consequently reducing the walking distance between stores, they were sometimes arranged to form an L or U (see Figures 1 and 2). There was usually at least one principal tenant in a shopping centre such as a food store or, in larger centres, a junior department store or full-fledged department store. This tenant was often charged a preferential rent by virtue of the fact that his store would attract other businesses to locate in the shopping centre. These new planned shopping centres were an adjustment in the intra-urban retail structure as a result of the phenomenal increase in the pervasiveness of the automobile. Accessibility to the consumer is a primary concern of the retailer. Accessibility in the case of a large shopping centre meant locating along a major transportation route or at a major automobile traffic intersection in addition to providing parking space. Smaller neighbourhood oriented shopping centres were located in new

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[9]B. Goodall, The Economics of Urban Areas (Oxford: Pergamon Press), p. 133.

FIGURE 1. The Northgate and Windsor Park planned shopping centres. The Northgate is a U-shape shopping centre while the Windsor Park Shopping Centre has an I-plan. (top and bottom respectively)

FIGURE 2. The Regent Park Shopping Centre was constructed in the L-pattern.

residential subdivisions. These were usually situated on an arterial street.

Despite efforts to meet the new needs of the suburban consumer, there were deficiencies in the design of the early planned shopping centres. Most were aesthetically unattractive and open to the parking lot. The customer was still exposed to the noise and hazards of the automobile while shopping. Even the first mall-type shopping centres were designed only to provide more and easier car parking. Their mall areas were dull and unpleasant and their display windows were still oriented to the parking lot.

Designers, developers and merchants gradually became aware, however, that the best shopping took place when people were on foot, away from the hazards and tensions of watching for cars and service vehicles and in an attractive environment. The consequence was that pedestrian areas were designed to be larger and better landscaped. Courts, plazas and arcades were developed. Where less favorable climatic conditions prevailed, pedestrian areas were covered, air conditioned and especially illuminated. The best store window displays faced the central mall area. These improvements took place, generally, in the largest, regional-type planned shopping centres (see Figure 3). In many cases facilities for other than retail activities were also provided. These facilities often included business and medical office space, hotels, auditoriums, exhibit areas, theatres, social meeting places, space for clubs and banquets and facilities for other cultural, recreational and civic activities.[10] These large, new planned clusters of stores and community facilities became the meeting and market places for the car driving suburbanite.

By the 1950's the development of shopping centres of all sizes and plans was in full swing. In 1957 there were thirty-six planned regional

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[10]Hornbeck, loc. cit., pp. 97-106.

FIGURE 3. The Polo Park Shopping Centre was Winnipeg's first mall type centre. The mall was covered and weather proofed in 1963. The mall area has been greatly improved in terms of general decor and attractiveness, since the shopping centre was opened in 1959.

shopping centres in the United States and Canada.[11] Each of these regional shopping centres had at least 400,000 square feet of floor space designated for stores, featured one major department store with an area of 150,000 square feet and was on a site of forty to one hundred acres. Some of the largest planned shopping centres covered as much as 1,000,000 square feet, excluding parking lots, and made $100,000,000.00 per year in sales. Since 1957 more and larger shopping centres have been developed and their number continues to increase. Canada now has over 540 shopping centres that have their sales and receipts reported to Statistics Canada, have at least five stores and range upwards in size to that of the Yorkdale Shopping Centre in suburban Toronto.[12]

The Affect of Planned Shopping Centre Development on the CBD

The importance of planned shopping centres as a part of the intra-urban retail structure has been increasing ever since their introduction, especially since World War II, while the proportion of all intra-urban retail activity carried on in the CBD has been on the decline. This decline has been due, in part, to the falling population and aggregate income levels of central city areas. It has also been a factor of the increased use of the automobile and the consequent reorientation of shopping habits on the part of the consumer and basic changes in the retail structure and overall urban fabric.

The results of the decline in retail activity can be seen in almost any large North American CBD. Large department stores which were among the first of their kind are being closed in the CBD's of cities such as Philadelphia. In order to combat the loss of downtown patronage, large multi-storied parkades have been constructed, freeways have been built to skirt the downtown area, narrow streets have been landscaped and turned into pedestrian mall areas and

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[11] Hoyt, loc. cit., p. 456.

[12] Canada, Statistics Canada, Shopping Centres in Canada 1970, Catalogue 63-214, p. 3.

public transportation from the suburbs to the CBD has been improved. Whether or not the CBD can compete effectively with the large new planned regional plazas is yet to be seen. In many cities, however, retailing in the CBD is holding its own as a result of these remedial efforts.[13]

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[13] B. J. L. Berry, Robert J. Tennant, Barry J. Garner and James W. Simmons, Commercial Structure and Commercial Blight (Department of Geography Research Paper No. 85; Chicago: University of Chicago, 1963), p. 29.

CHAPTER 2

THEORETICAL FRAMEWORK AND STUDY OUTLINE

This chapter presents the theoretical framework and study outline of an analysis of selected characteristics of Winnipeg's planned shopping centres. The chapter is divided into three parts:

Part I deals with the definition of a planned shopping centre,

Part II discusses the grouping and classification of planned shopping centres and

Part III relates to the ways shopping centre market areas can be defined and examined.

Part I - Definition of a Planned Shopping Centre

A planned shopping centre can be defined by comparing its general characteristics with those of the unplanned retail nucleation. In his Chicago study, Simmons cites three basic differences between planned and unplanned shopping centres.[14]

First, the planned shopping centres is "planned". Before any commitment is made for its construction, its trade area is usually estimated, its layout and size are determined and its developers are often in a position to select among contending potential tenants. There is usually no recognized decision making body that governs the distribution, size and types of stores for the unplanned retail nucleation and its ultimate market area and size are not predetermined. Rather, there is competition between stores for the most advantageous location in the nucleation. The highest bidders and highest order

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[14] Simmons, loc. cit., pp. 107-111.

stores usually get the best locations while the remaining stores take those that are secondary if a profit can still be made. The market area varies with the location of the retail cluster and the number of stores.

Second, planned shopping centres are new and advantage can be taken of the latest innovations in design and marketing. Stores in unplanned retail nucleations are affected by past decisions with regard to building size, location and design and are therefore limited in the marketing innovations that can be introduced.

Third, rental rates are predetermined in order to give the planned shopping centre developer a maximum overall return with the result that there is often no consistant internal rent structure. In some cases the largest and most important tenant may pay the lowest rent because the presence of his store is of benefit to all of the other tenants and, in turn, to the developer. Unplanned retail nucleations usually have a rent structure that is determined by competition for a particular site and its desirability in terms of market accessibility. Rents or prices paid for land and buildings decrease progressively away from the location in most demand.

In his Toronto study, Simmons considered the above differences but further differentiated planned shopping centres from unplanned shopping centres by their integrated building design, the lack of internal competition, unified management and adjacent parking lots.[15] He distinguished planned strips which are a form of commercial ribbon development from planned shopping centres. Here a number of stores share the same building but there is very little interaction between them. Planned strips were included in his study if they had more

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[15] Ibid., Toronto's Changing Retail Complex (Department of Geography Research Paper No. 104; Chicago: University of Chicago, 1966), p. 19.

than ten stores including a supermarket, off-street parking with controlled access and the presence of non-service business types. Even as a constituent of a commercial ribbon development, the planned nucleation of retail outlets can be differentiated from its unplanned counterpart by its newness, integrated appearance, adjacent parking lot and ready definition.

For its own purposes, Statistics Canada defines a planned shopping centre as:

> "A group of stores which are planned, developed and designed as a unit, containing a minimum of five retail establishments (or four retail establishments and a restaurant) in operation during any part of the current year. The centre must have a minimum of 20,000 square feet of usable parking area adjacent to it, and the parking facilities must be free of charge to customers. For shopping centres with paved parking lots of 20,000 - 50,000 square feet, the ratio of parking area to gross floor area must be 1.5 to 1 or better. The merchandising development must contain either a grocery and combination store, (i.e. a grocery store with sales of fresh meat accounting for 20 to 40 percent of total sales), a department store, or a chain variety store. While a shopping centre is usually designed as a single project, all establishments do not necessarily have to be leased from a single (private or collective) ownership. A retail establishment may own the building and the land on which it is situated and still be fully integrated with the centre. A shopping centre usually bares a name and, as a rule, matters of common interest to the tenants, such as children's playgrounds, community activities, parking, etc., originate from one authority."[16]

Students of the planned shopping centre have differed in their definitions. The facts of integrated building design, adjacent parking lots and more than one store sharing the same roof are common to most of the definitions. In this study, a planned shopping centre is defined as any cluster of stores having these three characteristics regardless of location and building form. Not all of Winnipeg's planned shopping centres are examined because a number of shopping centres have been developed since the data for this study was collected. A few other small shopping centres are not included in this

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[16]Canada, Statistics Canada, Shopping Centres in Canada, 1970, loc. cit., p. 4.

analysis. This should not affect the results significantly.[17] Included in this study are shopping centres that range in size from 3,600 to over 900,000 square feet. The number of stores in each ranges from two to 108. Their architectural and locational characteristics vary from the linear planned strip that is a part of a ribbon or arterial commercial development to the isolated mall-type shopping centre. The functions that they perform range in number from two to forty-five as determined using Berry's functional classification (see Appendix I). The characteristics of the various planned shopping centres that are included in this study such as "shopping centre area" and "number of stores" are also shown in Appendix I. Their distribution with relation to Winnipeg's residential development, major automobile traffic arteries and rivers is shown in Figure 4, page 18.

Part II - The Classification of Planned Shopping Centres

Like unplanned retail nucleations, planned shopping centres have been subjected to grouping and classification as an initial and, often, a major part of their analysis by geographers. Classification has been made on the basis of various criteria which differentiate one group of planned shopping centres from another.

Hoyt was among the first to attempt a classification of planned shopping centres as a separate subsystem in the intra-urban retail structure. His four level classification was made on the basis of shopping centre size and the presence or absence of certain types of stores. Included in his study were most of the planned shopping centres in the United States and Canada.[18] According to his classification, "large regional centres" have

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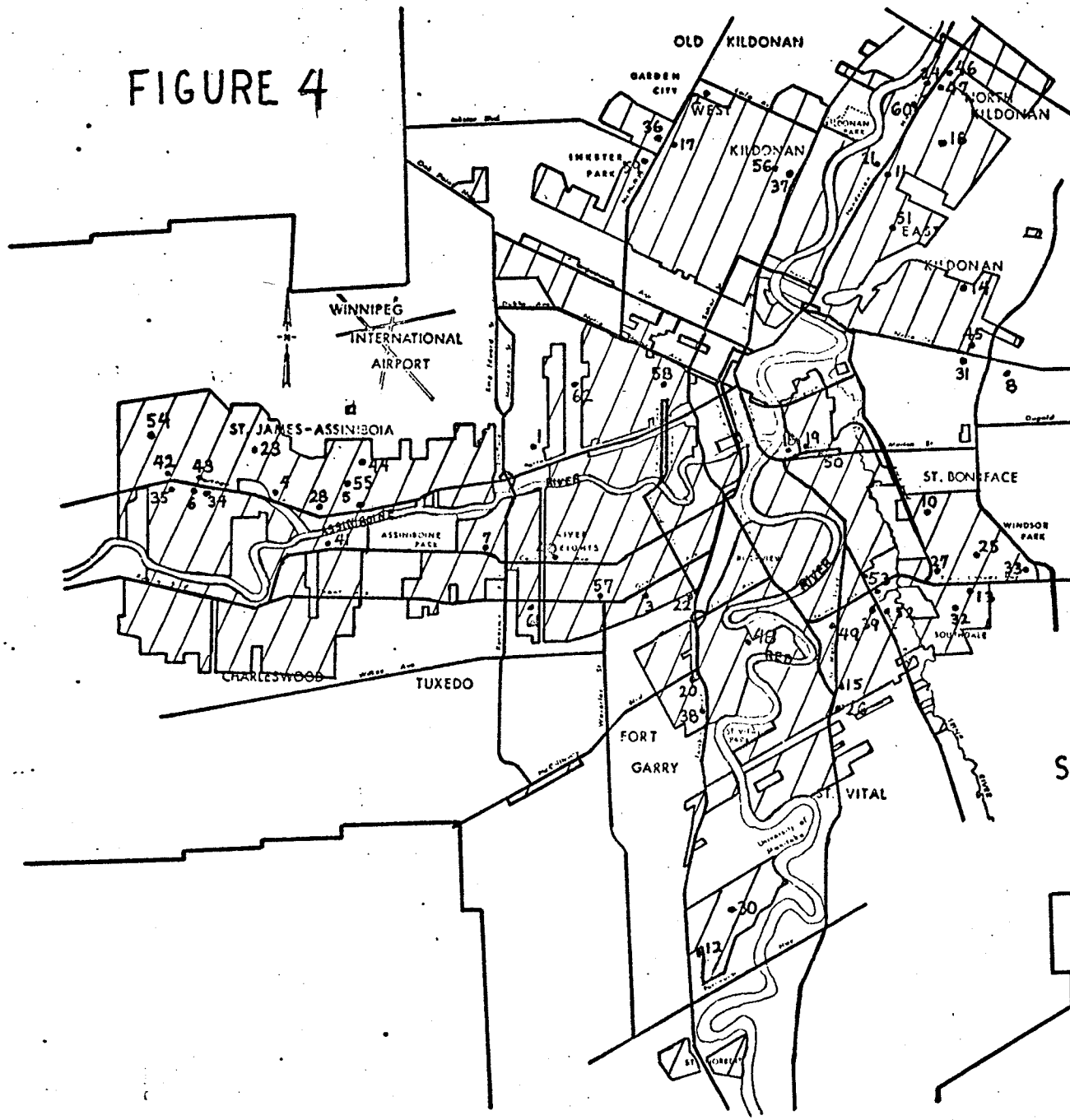
[17]The survey of Winnipeg's planned shopping centres was conducted during the Spring of 1973.

[18]Hoyt, loc. cit., pp. 456-458.

FIGURE 4



Winnipeg Planned Shopping Centres and Residential Area

Residential Area in 1973

• 31 Shopping Centre Identification Number (see Appendix I.)

Scale:

1 2 3 4

Miles

at least one major department store and cover at least 400,000 square feet. "Community shopping centres" cover between 100,000 and 400,000 square feet and include, among their stores, a junior department store. "Large neighbourhood centres" cover between 50,000 and 100,000 square feet and include a family clothing store in addition to a supermarket, drug store and hardware store. "Small neighbourhood centres" can range up to 50,000 square feet in area and include a 10,000 to 30,000 square foot supermarket and, very often, a drug store and hardware. Hoyt's classification serves to demonstrate the types of stores that are present at each of the four levels of shopping centres and that there are differences between shopping centres, both planned and unplanned.

Other researchers have classified shopping centres, planned and unplanned, in order to facilitate their examination of an entire intra-urban commercial system. Such was the case with the Chicago retail structure research by Berry et al.[19] Planned shopping centres were treated as a subset of the total intra-urban retail system in their general analysis but were not taken into account in a more rigorous determination of a hierarchy of retail nucleations. Berry used ten variables to derive his hierarchy, all of which were highly correlated with the physical dimensions of the unplanned shopping centres.[20] In his analysis, he used business types, number of establishments, frontal footage, floor area, trade area, population served, income in the area, sales, payroll and employment.[21] He did not include planned shopping centres

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[19]Berry, loc. cit.

[20]Peter Scott, Geography and Retailing (London: Hutchinson University Library, 1970), p. 149.

[21]Berry, loc. cit., p. 118.

in the computer analysis, though they were categorized along with the unplanned shopping centres in the final classification.[22] Simmons used Berry's functional typology in his Chicago and Toronto shopping centre studies. In the Toronto study no test of Berry's classification was undertaken before respective shopping centres, planned and unplanned, were designated to a hierarchy level.

It would appear that planned shopping centres form a separate hierarchy within the total intra-urban retail structure. Berry recognized differences between planned and unplanned centres with regard to the variables he used to derive his hierarchy. He found that, at the same level, a planned shopping centre had larger store sizes and fewer establishments of each kind than an unplanned shopping centre.[23] Forces influencing the development of this planned centre subsystem have also differed from those that affected the evolution of the unplanned shopping centre subsystem. On the basis of these differences, the researcher may well be justified in deriving a classification of planned shopping centres separate from that of the unplanned shopping centres in the same city.

According to Garner, shopping centres can be generally viewed as the intra-urban equivalent of rural central places and the basic concepts of central place theory can be applied to their study.[24] As a distinct subsystem of the intra-urban retail structure, aspects of the central place theory may

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[22] Ibid., pp. 34-45.

[23] Ibid., p. 61.

[24] B. J. Garner, "Models in Urban Geography and Settlement Location," Socio-Economic Models in Geography ed. Richard J. Chorley and Peter Haggett (London: University Paperbacks, 1967), p. 346.

also be applied to the examination of the planned shopping centres. "Analysis of their functional structure, size and trade area shows that, like rural central places, there is a hierarchy of business centres in a city."[25] Lukerman states that "in urban systems analysis ... some, specification of ... (hierarchy, modality and circulation) is mandatory."[26]

The derivation of a discrete hierarchy of urban areas has been typical of central place studies. This hierarchy is a result of functions or goods having different market thresholds due to varying levels and frequency of demand. Central place hierarchy determination has been based on various indicators of centrality. Christaller used the number of phone calls made in a town to determine its relative centrality.[27] Others have used the number of functional units regressed on the number of functions.[28] Kilowatt hours and population have also been regressed on the number of business establishments to determine a hierarchy of central places and to test the central place theory.[29]

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[25] Ibid.

[26] Brian J. L. Berry and Frank E. Hodton (ed.), Geographic Perspectives on Urban Systems (Englewood Cliffs: Prentice-Hall, Inc., 1970), p. 170.

[27] Walter Christaller, The Central Places of Southern Germany, trans., C. Baskin (Englewood Cliffs: Prentice-Hall Inc., 1966).

[28] A. Hecht, "An Investigation into Central Aspects of Portage la Prairie, with Special Emphasis on the Establishment of an Hierarchy and Delimitation of the Complementary Area" (unpublished Master's dissertation, Department of Geography, University of Manitoba, 1968).

[29] Wm. J. Watts, "Determining a Central Place Hierarchy by Using Electrical Power Data in Southwest Manitoba" (unpublished Master's dissertation, Department of Geography, University of Manitoba, 1968), pp. 44-77.

An intra-urban hierarchy of shopping centres would be based on the number of functions, number of stores, floor area, trade area and other indicators of the centrality of retail nucleations.

Hans Carol was among the first to derive a hierarchy of intra-urban retail nucleations. His study was undertaken in Zurich, Switzerland in 1960.[30] Garner's research in 1963 further supports Carol's findings. It is also possible that, as a subset of the total retailing structure of a city, there is a discrete hierarchy of planned shopping centres that can be derived. If such a hierarchy can be determined by a more rigorous analysis, shopping centres at different levels should then have typical relationships with their customer as reflected in their market area size and location, and the character of trips made to these shopping centres. Garner states that the relative location of unplanned shopping centres conforms closely to Christaller's K=4 network.[31] Only an even distribution of purchasing power, perfect knowledge and perfect mobility, on the part of the consumer, would result in a distribution of shopping centres identical to that of the theoretical distribution of central places. Market areas would also conform to the ideal with consumers travelling to the closest retail outlet for the goods it supplies.[32]

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[30] Hans Carol, "The Hierarchy of Central Functions Within a City", Annals of the Association of American Geographers, Vol. 50, 1960, pp. 419-438.

[31] Barry Garner, The Theory of Tertiary Activity and the Internal Structure of Retail Nucleation, (unpublished Ph. D. dissertation, Northwestern University, 1963), p. 55.

[32] Many of the assumptions of the classical central place theory requires modification in the real world situation. Researchers such as Woldenberg and Muncaster have demonstrated, however, that a mixed network of market areas and central places can very closely approximate the real world situation. See Michael J. Woldenberg, The Identification of Mixed Hexagonal Central Place Hierarchy with Examples from Finland, Germany, Ghana and Nigeria (Harvard Papers in Theoretical Geography, "Geography and the Properties of Surfaces", Series Paper No. 5; Cambridge, Mass.: Harvard University, 1967) and R. W. Muncaster, "Theoretical Spatial Implications of Mixed Central Place Hierarchies", (M. A. dissertation, Clark University, 1968).

It may well be possible to classify Winnipeg's planned shopping centres on the basis of the theory of the ordering, spacing and relationships of central places or retail nucleations. Such an attempt at a classification would also be a further test of the central place theory as it is applied to the intra-urban retail structure. At most, however, the classification would be based on a subsystem of the total intra-urban retail structure, a fact that must be considered continually in the process of analysis and data interpretation.

A preliminary attempt at such a classification of planned shopping centres is made in this study. Winnipeg's planned shopping centres are classified on the basis of the types and functions of their stores and their overall size. Some shopping centres are also differentiated on the basis of their location with respect to arterial retail development.

Though it is beyond the purposes of this study, it may also be possible by further analysis to identify groups of shopping centres when the number of retail functions performed is related to market area size. Further, a discrete hierarchy might be derived by relating the number of functions a shopping centre has to the straight line distance to the nearest shopping centre with at least the same or a larger number of functions. These would constitute more complete tests with regards to the ordering and spacing of shopping centres at different levels of the hierarchy, if such a hierarchy exists.

Part III - (a) Market Area Analysis

Knowledge of the market area of a planned shopping centre, prior to its construction, is a feature which often distinguishes the planned retail nucleation from the unplanned retail nucleation. When a location is being considered, such factors as arterial street pattern, distribution of the

competition, population distribution, influence of physical and cultural barriers, strength of the major tenant, distribution and levels of income and success of other shopping centres in similar situations are usually taken into account.[33]

One of the major criticisms levelled at geographers' research of market areas has been the "descriptive" nature of their analysis.[34] It is often not adequate for use by developers. Theses have also tended to have very general market area analyses and market area definitions. This inadequacy has been due, in part, to the difficulty in defining a market area.

Researchers have attempted to define market areas in a number of ways. Some have interviewed customers at the shopping centres under study in order to determine their home addresses. Berry included at least eighty percent of those interviewed at the shopping centres in his Chicago market areas.[35] Sparcia suggests that only the closest sixty percent of those questioned should be considered to be within a shopping centre's market area.[36] In criticism of Berry's market area definition, Scott says that "they reveal nothing of the spatial complexity of consumer travel for the purchase of particular types of goods".[37] In light of this criticism and its expression of the problems

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[33]Harold R. Imus, "Projecting Sales Potentials for Department Stores in Regional Shopping Centres", Economic Geography, Vol. 37, 1961, pp. 33-41.

[34]Bart J. Epstein, "Evaluation of an Established Planned Shopping Centre", Economic Geography, Vol. 37, 1961, p. 12.

[35]Scott, loc. cit., p. 150.

[36]Frank J. Sparcia, "Trading Area Variations for Different Goods Sold in the Same Store", The Professional Geographer, Vol. 18, No. 1, 1966, pp. 5-8.

[37]Scott, loc. cit.

involved in market area definition, researchers may well be justified in restricting their analyses to general descriptions of trade area characteristics as Morris did in his study of the Polo Park Shopping Centre in Winnipeg.[38]

More acceptable to Epstein might be the use of Huff's development of Reilly's Law of Retail Gravitation which takes into account the indefinite nature of consumer decision making.[39] In defining trade areas between shopping centres which provide the same goods, Huff's model takes into account the amount of selection at each centre, in terms of the floor area devoted to these goods, and the time it takes to get to either centre. Instead of interviewing people at the shopping centre being examined, interviews are conducted at the respondents' homes or points of departure. Such interviews enable a more representative sampling and, possibly, a better understanding of consumer behavior. Huff has also shown how it is possible to derive information about the potential of new shopping centres, in terms of sales and customers, by the application of this model.

In analyzing differences between shopping centres in terms of size, number of stores, functions, quality of goods sold and other characteristics, it is important to examine the nature of their respective market areas. Berry found that physical and socio-economic boundaries had a definite influence on trade area convolutions.[40] Trade area size and amount of income available for

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[38] R. G. Morris, "An Evaluation of the Functions and Characteristics of a Regional Shopping Centre - Polo Park, Winnipeg," (unpublished M. A. dissertation, University of Manitoba, 1966).

[39] David L. Huff, "A Probability Analysis of Shopping Centre Trade Areas," Land Economics, Vol. 53, 1963, pp. 81-90.

[40] Berry, loc. cit., p. 71.

goods has a positive influence on the size of shopping centres. In Chicago, all regional and most of the community shopping centres were located in the high income area.[41] It is probably also true that lower order shopping centres in high income areas have small or market areas with the result that there are more such shopping centres per unit area. The threshold market area of a good decreases as income and expenditure levels increase. A shopping centre in a lower income district requires a larger market area than a shopping centre of the same level in a higher income district. It is probable that shopping centres of the same level in two different socio-economic zones have different types and qualities of retail outlets. Lower income areas would not be able to support the higher order functions that are present in shopping centres in higher status districts.

Trade area delimitation by the two methods typified by Berry and Huff provides complementary information thus enabling a more complete market area examination. Huff's model enables a more unbiased sample to be taken in that everyone in a neighbourhood is a potential interviewee with the result that a better view of consumer behaviour is obtained. Berry's method is probably less time consuming but limits the sample to those who actually make a trip to the centre being examined. Berry's method samples actual behaviour while Huff's method samples past or potential behaviour. Which of these methods results in more accurate information about market areas is uncertain. However, both yield data that is necessary for a better understanding of differences between shopping centres and how these differences affect market area size.

An attempt is made in this study to shed more light on how the various

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[41] Maurice H. Yeates and Barry J. Garner, The North American City (New York: Harper and Row, 1971), pp. 339-341.

characteristics of a shopping centre affect its market area size. An examination of selected shopping centre characteristics is conducted to demonstrate if there is a relationship between the size of a shopping centre market area and each of these characteristics. It is hoped that this analysis will lead to further study of the relationship between the characteristics of a shopping centre and those of its market area.

Part III - (b) Consumer Movement

Trade area characteristics vary with levels of shopping centres. Consumer behaviour examined on the micro-scale also varies with shopping centre order. Garrison's study in Cedar Rapids, Iowa, was enlightening with regard to the variation in the types and frequency of trips that are made for different goods and the distance consumers are willing to travel to buy these various goods.[42] He found that most single purpose trips are made for convenince goods that are purchase most frequently. Multipurpose trips are less frequently undertaken and involve purchasing higher order goods at a greater distance from the home. In support of a statement made earlier in this study (page 27), he also found that higher income families travel further for the goods they require, whatever the level (whether for convenience or shopping goods) and regardless of the type of trip (whether single or multipurpose).

Other researchers have conducted studies that were designed to examine the patterns of shopping trips. Some have asked questions such as, "Given that four different goods are required, what is the probability that a consumer will make four single purpose trips to four separate retail outlets, make one

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[42] W. L. Garrison et al., Studies of Highway Development and Geographic Change (Seattle: University of Washington Press, 1959).

multipurpose trip with stops at four different places or make one trip to a location that has all of the required goods?" and "What are the factors that influence a person to decide on a particular trip pattern.[43] Boal and Johnson examined shopping trip patterns on a ribbon development, the Macleod Trail in Calgary, Alberta.[44] They found that the "hierarchic" establishments (bank, grocery store and supermarket), together, had the highest proportion of single purpose trips made to them. As expected, the "highway oriented" establishments (gas stations and drive-ins) had the highest proportion of "through traffic" patronage. The restaurant examined had a higher proportion of visits from people who patronized establishments along the "Trail" and had stopped there before proceeding home. On the basis of this result the restaurant was reclassified from highway-oriented to hierarchic in function type. The results of this study by Boal and Johnson support Garrison's work and demonstrate a method that enables a more detailed examination of shopping trip behaviour. It is possible that with a modification of the technique used by Boal and Johnson a study of shopping trip patterns as they vary with shopping centre level and location would further demonstrate differences between shopping centres. Also of value in the examination of differences between shopping centres would be the application of the theory and techniques put forward by Nystuen.[45]

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[43] Yeates and Garner, loc. cit., p. 420.

[44] B. W. Boal and D. B. Johnson, "The Functions of Retail and Service Establishments on Commercial Ribbons," Canadian Geographer, Vol. 9, No. 3, 1965, pp. 160-162.

[45] J. D. Nystuen, "Geographical Analysis of Customer Movements and Retail Business Locations" (unpublished Ph. D. dissertation, University of Washington, 1959) and J. D. Nystuen, "A Theory and Simulation of Intra-Urban Travel", Quantitative Geography, Part 1: Economic and Cultural Topics, edited by W. L. Garrison and D. F. Marble (Department of Geography Studies No. 13; Evanston: Northwestern University, 1967), pp. 54-83.

Some of the consumer characteristics and patterns of movement sampled during a survey of patrons of Winnipeg's planned shopping centres are examined in this study. Those interviewed were asked about their mode of transportation to a shopping centre, the number of stores they visited there and the number of stores they visited on the way. The sex of each interviewee was also noted. It is possible that these consumer characteristics and trip patterns also vary with the characteristics of shopping centres.

CHAPTER 3

THE DEVELOPMENT AND DISTRIBUTION OF WINNIPEG'S PLANNED SHOPPING CENTRES

This chapter is a case study of planned shopping centre development as it has taken place in Winnipeg. This development has parallelled that which has occurred in other North American urban areas. Even so, it has not been a total duplication of what has occurred elsewhere. Rather this development has been in part an adaptation to the characteristics and changes of the Winnipeg urban fabric. This case study demonstrates the sequence and some of the factors of Winnipeg's planned shopping centre development and its impact on the older retail system. The general format of this chapter is as follows:

1. Winnipeg's early retail structure is described at the outset along with the changes the retail structure has undergone as the city has grown and as changes have taken place in its residential and areal development. This description of the early retail structure provides a better perspective on the present retail structure.

2. The section that follows is an account of the sequence and some factors in the development of Winnipeg's planned shopping centres.

3. The final section of this chapter relates to changes that have taken place in Winnipeg's CBD as a result of the development of planned shopping centres. This section demonstrates how this new phenomenon has affected the older retail structure and some of the efforts that have been made to overcome its adverse consequences.

Winnipeg's Early Retail Development

Winnipeg began as a small nucleus of settlement around the nineteenth

century fur company trading posts that were situated at the confluence of the Red and the Assiniboine Rivers. Winnipeg's early growth and function as a service centre came with the establishment of settlers along the two rivers. This growth continued as the Canadian prairies were further opened to agriculture. Winnipeg became the chief service centre for the region. All trails and water routes lead to "The Forks".

It was not until the coming of the railway, however, that it became possible to tap more of the agricultural potential of western Canada and Winnipeg's rate of growth and importance were increased. In 1881, the railway that had been designed to link the east with the west in Canada was directed toward Winnipeg. With the railway as an attraction, manufacturing and wholesaling enterprises were soon established and a population base was provided for the expansion of the retail and service trades. At the time of Winnipeg's incorporation as a city in 1873 there was a population of merely 1,869 persons. After the coming of the railway, however, Winnipeg's growth was phenomenal. By 1900 the population was 42,534.[46]

Winnipeg's earliest commercial development took place along Main Street between Upper Fort Garry, the Hudson's Bay Company post and supply depot, and Portage Avenue. The typical pioneer village retail outlets were concentrated at Portage and Main. There was also some commercial activity along Portage Avenue and further north along Main Street. The north-south axis of commercial development was strengthened with the coming of the Canadian Pacific Railway and the consequent establishment of wholesaling and manufacturing industries between Portage Avenue and the railway right-of-way. During the late 1800's Winnipeg's

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[46]H. A. Hosse, "Areal Growth and Functional Development of Winnipeg from 1870 to 1913". Unpublished Master's thesis, Department of Geography, University of Manitoba, 1956, p. 195.

central business district was on Main Street, north of Portage Avenue in the vicinity of the City Hall. Winnipeg's early residential development also parallelled the Red River. During the first few years, the greatest expansion in this sector of the urban fabric was in a northerly direction with the Assiniboine River acting as the southern barrier.

Commercial and Residential Development During the Early 1900's

Winnipeg continued to grow rapidly during the early 1900's as the recruitment of settlers from Europe and the eastern parts of North America continued. During this period, residential expansion began to take a westward orientation. This westward growth of the city was a factor of a number of influences such as the positioning of the Canadian Pacific Railway marshalling yards; the fact that the major westward artery, Portage Avenue, was comparatively well maintained; and the Red and Assiniboine Rivers acted to prevent large scale expansion in southerly and easterly directions. A high class residential district became established along the Assiniboine River and a private water treatment plant went into operation in the Armstrong's Point area, further contributing to Winnipeg's westward orientation in areal growth during the early 1900's. Nodth American cities have tended to develop in a westerly direction.[47] Most of the new residential development in Winnipeg took place along the major traffic arteries that radiated out from the core area and the rivers.

It was during the expansion period between 1900 and 1910 that St. James became a suburb of Winnipeg. St. Boniface and West Kildonan also took in a large part of the new population. Further population growth took place up to

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[47]Morris, loc. cit., p. 12.

1930 and the municipalities of North and East Kildonan, St. Vital, Fort Garry and the Transcona area became increasingly urbanized.

With Winnipeg's larger population and zone of influence, an expanding central commercial district could be supported. Prior to 1905 the central business district had been centred on the City Hall.[48] This changed, however, after the opening of the mammoth new Eaton's department store at the intersection of Portage Avenue and Donald Street. Winnipeg's residential development was already showing a westward bias. With the opening of the Eaton's store, a new retailing focal point was established and the commercial district also began to show a greater westward orientation. The T. Eaton Company was effective in drawing business away from Main Street and the Hudson's Bay Company decided to establish its new store at Portage Avenue and Vaughan Street in 1927. Portage and Vaughan became another peak land value location. Since 1927 the area along Portage Avenue between Eaton's and the Hudson's Bay Company store has been the scene of most of Winnipeg's higher order retail activity.

The Development of Outlying Retail Districts

Winnipeg's central business district has dominated its retailing activity from the early days when most stores were concentrated along Main Street. Winnipeg's core area provided higher order goods and services to much of western Canada. Lower order merchandise was offered to Winnipegers through a network of smaller retail nucleations and isolated grocery stores that became established in the residential areas beyond the CBD. These local retail outlets served the every day needs of the population. More were developed as residential areas expanded. Intermediate levels of retail nucleations were established in St. Boniface and on Selkirk Avenue, north of the C.P.R. marshalling yards.

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[48] From the lectures given by Professor B. Rotoff, Department of City Planning, University of Manitoba, 1973.

These were physically isolated and ethnically unique residential areas.

As the suburban municipalities absorbed a greater proportion of the influx of new residents between 1900 and 1930, more people found it uneconomical to travel to the downtown area for other than higher order goods. The result was that consumers in these areas preferred to patronize the retail outlets that were being developed along major thoroughfares and street car routes or in small outlying retail nucleations situated at major intersections within the suburban communities. Portage Avenue, Main Street and Pembina Highway had well developed commercial ribbons and St. Vital, St. Boniface, Fort Garry, St. James, Elmwood, West Kildonan, East Kildonan, Old Kildonan and Transcona all had small business districts.

Winnipeg's retail and residential growth had been phenomenal prior to 1930. This changed, however, during the years of the Great Depression and World War II. The 1930's and early 1940's were years of slackening in both the retailing and housing sectors of Winnipeg's economy. The boom years were over.

The Post-World War II Years

As the second world war came to a close, the results of fifteen years during which little new housing had been built were felt. This shortage came about even though the population had been growing at a much slower rate than during the previous years.[49] Soldiers began to return from their war-time duties; increasing numbers of families began to move to the city from rural areas; a higher proportion of the population was getting married and displaced persons from Europe were being settled in Canada. These factors placed even more pressure on the existing housing market. The scarcity of housing was acute.

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[49]L. B. Smith, Research Monograph 2: Housing in Canada: Market Structure and Performance. (Ottawa: Central Mortgage and Housing Corporation, 1971), p. 9.

In 1947, a City of Winnipeg Health Department report stated that there were only forty-three vacant houses, many of which were substandard, and there were no suites available in any of the apartment blocks. As a consequence it was recommended that 10,000 additional housing units should be made available as soon as possible. The Health Department recommended that:

"1. material shortages be overcome by the production or compulsory release of the necessities for home building,

2. no luxury building be permitted,

3. small apartment blocks be created instead of single family houses,

4. large houses be legally converted to act as multiple dwelling units,

5. lower income brackets be given preference to the above types of homes." [50]

These recommendations were being made across the country, as the housing shortage was not unique in Winnipeg, and most of the recommendations were being enacted. During the late 1940's thousands of new homes were built in Winnipeg and her surrounding suburban municipalities. As evidence of this tremendous expansion that came as a result of the new housing, every municipality, with the exception of Transcona and Tuxedo, had an increase in population of at least fifty percent between 1941 and 1951 (see Appendix II). Many of the new homes were designated for veterans of World War II. In new housing developments such as Wildwood Park in Fort Garry, all but a few of the new structures were set aside for veterans. Special programs and low interest rates on mortgages made it relatively easy for a veteran to buy a home.

Municipalities bordering the City of Winnipeg continued to grow during the 1950's and 1960's as the nation-wide trend toward suburban living continued. Suburban development areas such as Westdale, Southdale, Fort

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[50] The Winnipeg Free Press, January 25, 1947.

Richmond and Windsor Park were widely advertised. Areas in North, West, East and Old Kildonan and St. James-Assiniboia were also being developed during this period. Suburban growth of this magnitude was only made possible by an increased use of the automobile. Increases in Winnipeg's automobile mileage parallelled that of the rest of Canada. Between 1945 and 1971 passenger car miles in Canada tripled.[51]

Since World War II the automobile has been used more and more for shopping trips. The result of this increased automobile usage was soon manifest in greater congestion of streets in traditional commercial areas. Shopping in the downtown area and at stores along major arteries became increasingly difficult. Travel from suburban areas became more costly as distances increased and parking space became scarce.

Winnipeg's First Planned Shopping Centres - A Solution to Parking Problems

The first commercial development that was designed to better serve the automobile driving public was the Wildwood Shopping Centre. It was opened for business in 1947 near the Wildwood Park residential complex in Fort Garry (see Figure 5). The stores in this planned retail nucleation were set back further from the street than was usually the case in unplanned nucleations. This enabled diagonal parking that would facilitate the accommodation of more cars near the entrance ways. In addition, other characteristics such as integrated building design, a designated target population and single ownership were typical of planned shopping centre developments elsewhere in North America. Five retail outlets including a relatively large, modern grocery store and an automobile service station were accommodated under one roof. The

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[51]Statistics Canada. Canada 1972: The Annual Handbook of Present Conditions and Recent Progress (Ottawa: Information Canada, 1971) p. 282.

FIGURE 5. The Wildwood Shopping Centre was Winnipeg's first planned shopping centre. It was built in 1947 and has a relatively small parking area in front. Much of the floor area is now vacant due to changes in retailing techniques, changing market conditions and stiff competition from newer shopping centres.

shopping centre was designed to serve Wildwood Park and Mel Grant was its single owner. This small neighbourhood commercial complex served the everyday needs of the people in its vicinity (see Figure 6). Its development marked the beginning of a new era in retailing Winnipeg and western Canada as a whole. Another similarly designed shopping centre was also opened in 1947 and served a newly developed neighbourhood in West Kildonan (see Figure 7).

It was not until 1954 that another planned shopping centre was opened for business in the Winnipeg area. This was not, however, for reason of a lack of proposals. The construction of two major new regional shopping centres was announced in 1952.[52] Its site was apparently chosen after an extensive analysis of the Winnipeg market area and a number of alternative locations. The final decision regarding location was a site bounded by Main Street, Woodbine Avenue, the Canadian Pacific Railway line to Winnipeg beach and Jaffrey Avenue. The complex was to include elaborate shopping facilities by way of 135 stores, banks, bowling alleys, a roller skating pavillion, an auditorium, a hospital, a chapel, day care services and apartment blocks. It was projected to open in 1955. This shopping centre was never actually developed but the other regional shopping centre that was first proposed in 1952, the Polo Park Shopping Centre, did come about later in the decade.[53]

In keeping the historic westward tendency in new retail and residential development, the next two shopping centres to be built in Winnipeg were located in St. James. Both were opened in 1954 and situated within a mile of each

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[52] The Winnipeg Free Press, November 11, 1952.

[53] The Winnipeg Free Press, November 12, 1952.

FIGURE 6

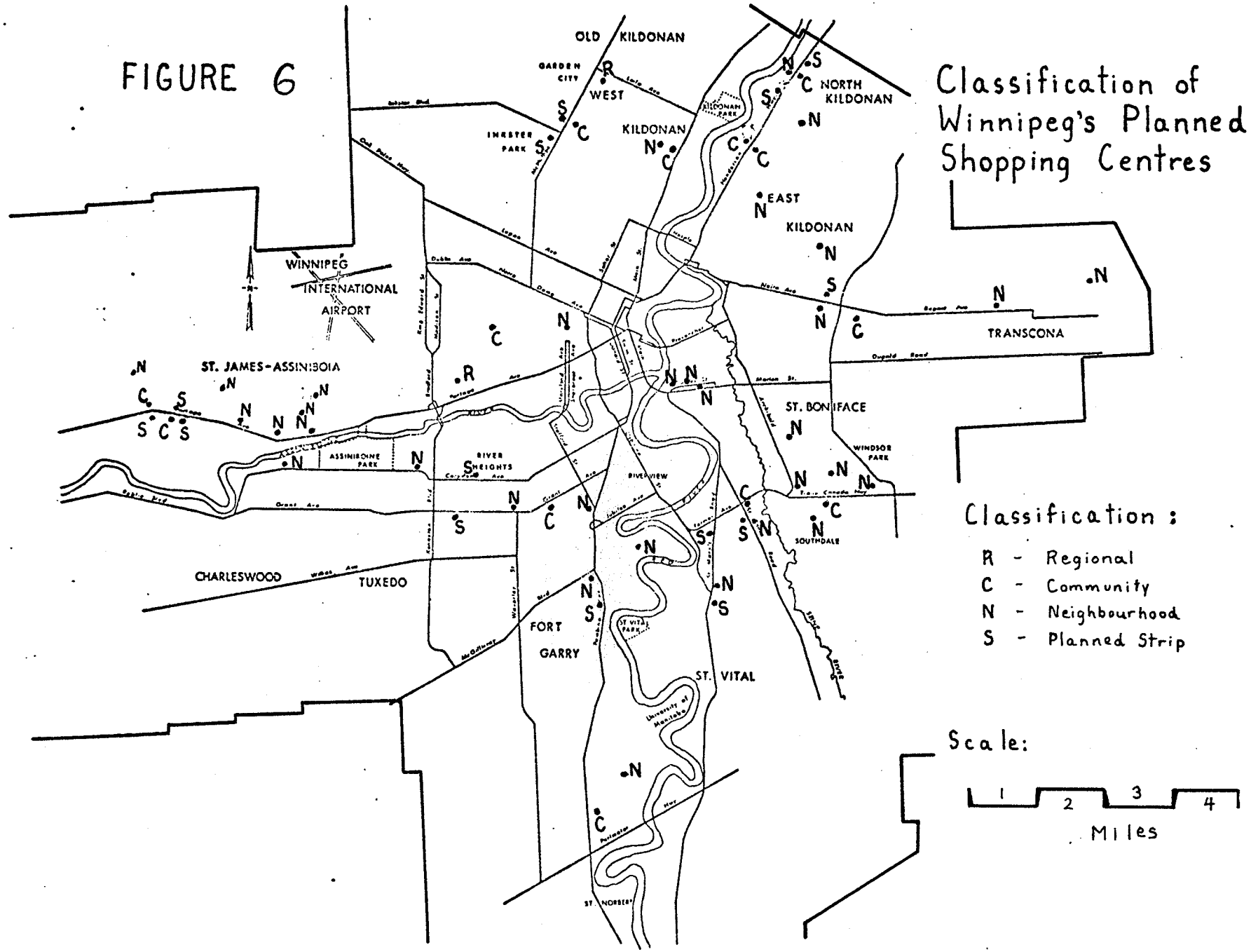
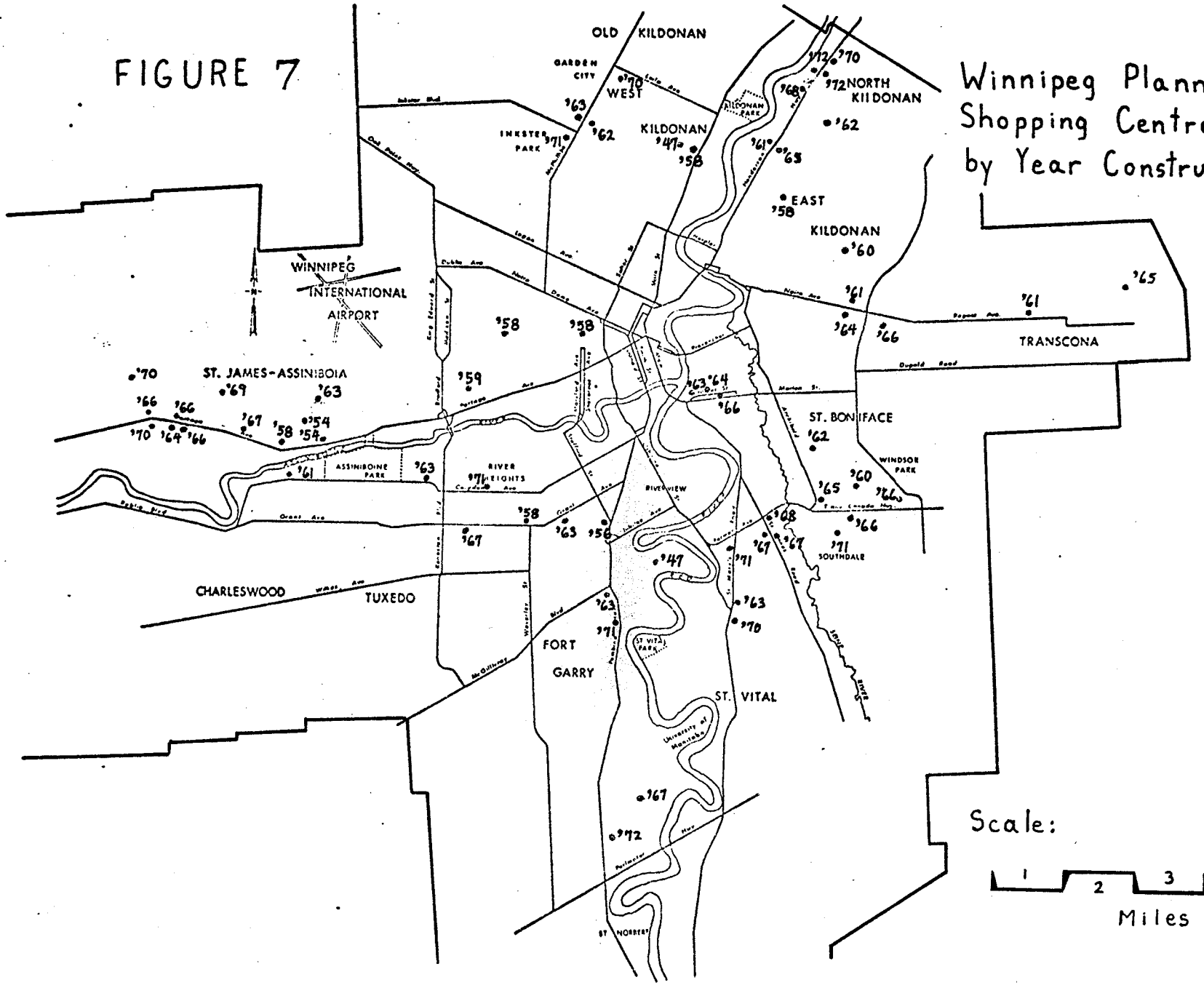

OLD KILDONAN
GARDEN CITY
WEST
KILDONAN
NORTH KILDONAN
EAST KILDONAN
INKSTER PARK
WINNIPEG INTERNATIONAL AIRPORT
ST. JAMES-ASSINIBOIA
ASSINIBOINE PARK
RIVER HEIGHTS
RIVER VIEW
ST. BONIFACE
WINDSOR PARK
SOUTHDALE
TRANSCONA
CHARLESWOOD
TUXEDO
FORT GARRY
ST. VITAL
ST. NORBERT
Classification of Winnipeg's Planned Shopping Centres
Classification :
R - Regional
C - Community
N - Neighbourhood
S - Planned Strip
Scale:
1 2 3 4
Miles

FIGURE 7



Winnipeg Planned Shopping Centres by Year Constructed

other. The Silver Heights Shopping Centre was the largest of the two neighbourhood type centres and was located on Portage Avenue at Mount Royal Road (see Figure 8). Its arterial location enabled the stores in this shopping centre to tap the homegoing traffic market in addition to that of the local area. Retail, office and recreation space were combined and genuine off-street parking was provided for the first time as a designed feature of a retail complex. The second shopping centre to be opened in 1954 was smaller with only three stores and served the area in the immediate vicinity of Strathmillan Road and Bruce Avenue.

The Period of Rapid Automobile - Oriented Retail Development

The trend that had been taking place elsewhere in North America was made more evident in Greater Winnipeg after 1956. Food chains based in eastern Canada, the eastern seaboard of the United States and California, some of which were entering the Winnipeg market for the first time, began to develop new and much larger stores than in the past. All of these new supermarkets featured adjacent, off-street parking and they were often opened in conjunction with other stores in new shopping centres. They were being opened in both old and new residential areas. The chief tenant of Winnipeg's next new planned shopping centre was a large A and P store, the first for this food chain in Winnipeg, with over 25,000 square feet of floor space. It was located in south Winnipeg at Stafford Avenue and Pembina Highway. When this shopping centre was opened it was by far the largest in the metropolitan area.[54]

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[54]During this period Canada Safeway was making efforts to strengthen its position in Winnipeg and across Western Canada. This chain was closing many of its smaller stores in the older parts of the city and building supermarkets along major thoroughfares such as Pembina Highway, Portage Avenue and Corydon Avenue. Dominion Stores and Loblaws built their first Winnipeg supermarkets during the mid 1950's. Their target, as with Canada Safeway, was the car driving consumer who was now tending to buy bulk and to shop on Friday evenings and on Saturday. The prairies based Western Grocers Ltd. was also changing and expanding its operations with the opening of numerous Shop Easy supermarkets and by banding together a group of independent grocers under the name of Tomboy Stores.

FIGURE 8. The Silver Heights Shopping Centre was opened in 1954 to serve a newly developed residential area in St. James. It was the first to have limited access parking in Winnipeg.

No new planned shopping centres were developed in 1957 but during the next year, stores in five new shopping centres were opened for business. The need for adequate, convenient parking space was now being more widely met. Two of the new developments came about in the older parts of the city. These were the Red River Co-Op Shopping Centre located at the intersection of Ellice Avenue and Wall Street and a new development at Sargent Avenue and Sherbrook Street. The first was a community shopping centre and the second was a neighbourhood level shopping centre. Two more neighbourhood shopping centres opened in recently developed residential areas in East Kildonan and St. James. The fifth new shopping centre to be opened in 1958 was built in West Kildonan at Jefferson Avenue and Main Street. This was another community level shopping centre and featured a junior department store.

In 1959, what is still Winnipeg's largest planned shopping centre, Polo Park, opened for business. This was the first planned shopping centre in Winnipeg and western Canada on the scale of The Centre in Hamilton, Ontario and of others in the United States. To date, the shopping centre at Stafford Avenue and Pembina Highway was still the largest in Winnipeg. All but the West Kildonan and Red River Co-Op shopping centres had been designed to serve small, primarily suburban neighbourhood populations. When Polo Park was first opened forty-eight stores were featured, including a Simpson-Sears Department Store, two junior department stores and two supermarkets.[55] A major addition was made to Polo Park in 1968 which resulted in the opening of Winnipeg's second Eaton's department store along with a number of smaller shops designed to serve a higher class of customer than had previously been the case.

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[55]Simpson-Sears was the pilot store in this project and it was the first store that this new company opened in western Canada. Sears Roebuck, the American partner in the merger was the first department store chain to cater to the automobile driving public in the United States. After joining with Simpson's during the mid-1950's, they continued their strategy in Canada.

The period from 1960 to 1966 was one of significant growth in the number of areal distribution of planned shopping centres in Greater Winnipeg. During this time eight community and twenty-one neighbourhood planned shopping centres were opened. All of these new planned retail nucleations were developed in the suburbs and many were opened in conjunction with a residential area expansion. Junior department stores such as Woolco, K-mart, Gambles and Zellers were the chief tenants in the Grant Park, Northgate, Westwood, Crestview, Northdale, Southdale, Crossroads and Nairn and Highway 59 community shopping centres. Smaller neighbourhood shopping centres were designed to serve the every day needs of the new residents of eastern Transcona, East Kildonan, Windsor Park, St. Vital, Fort Garry, Tuxedo, Charleswood, Westwood, and St. James. The saturation of the suburban market with planned shopping centres has been so effective that retailing in parts of East Kildonan, Windsor Park, Tuxedo and the western extremes of St. James-Assiniboia is carried on almost exclusively in this new form of retail nucleation.

Between 1967 and 1972, twenty-one more planned shopping centres came into existence. Of these, one was Winnipeg's second regional planned shopping centre. Located in North Kildonan, the Garden City Shopping Centre has as its major tenant another Simpson-Sears department store.[56] Two more community shopping centres, the River East Plaza and the Fort Richmond Plaza, were opened during this time and a large extension was made to the Grant Park Plaza. Seventeen neighbourhood level shopping centres were also developed in this five year period. Many of the latter are smaller in terms of floor area and number of stores than those built between 1960 and 1966. Most have been located

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[56]An expansion to this shopping centre is expected in the near future that will result in the opening of Winnipeg's third Eaton's department store.

within existing commercial ribbons along major arteries and are functionally similar. They can therefore be more appropriately designated as planned strips. Most have at least one chain bread and milk grocery store such as a 7-11, Mac's or Mini Mart along with other stores that serve primarily local clients.

The years since World War II have been ones of tremendous change in Winnipeg's retail structure. Most of these changes have taken place during the past fifteen years and have been coincident with a major residential area expansion. During this time two regional shopping centres, thirteen community shopping centres, many more neighbourhood shopping centres and, more recently, planned commercial strips have been developed.

Changes in Building Design

The planned shopping centre has come into its own in Winnipeg during the past decade. The result has been that major additions and changes have been made to Winnipeg's retail structure. During this time the planned shopping centre has changed in terms of building design.[57]

Winnipeg's first shopping centres were of the strip type (see Figure 9).[58] This building pattern fit readily into the existing arrangement of commercial development along major traffic arteries and of lot lines in residential areas.

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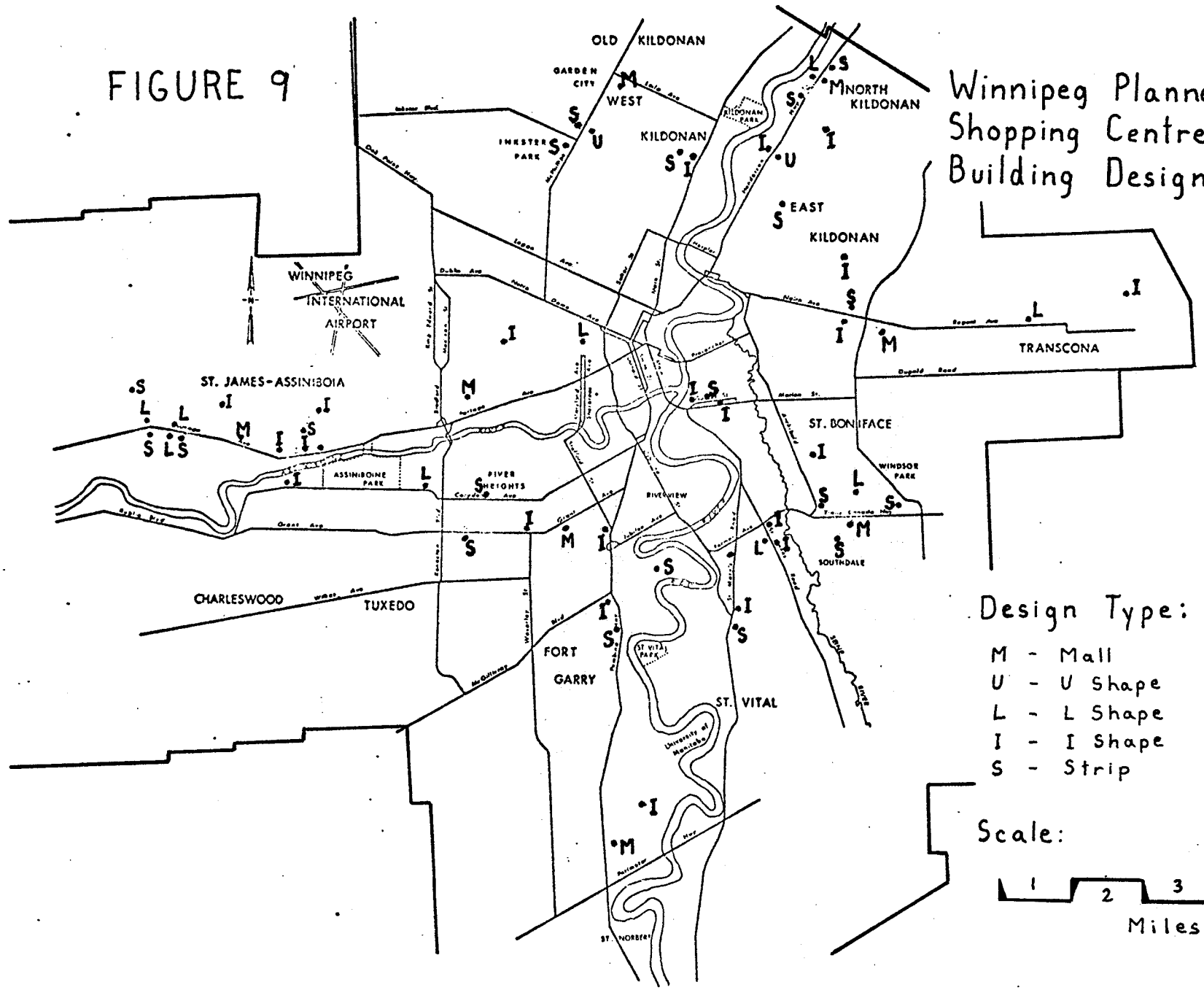
[57]One of the characteristics that distinguishes the planned shopping centre from its unplanned counterparts is its integrated building design. Also two or more stores are accommodated under one roof though a retail outlet that is physically separated from other stores that form a shopping centre is usually considered to be a part of that shopping centre if it shares the same parking lot. This physical separation usually occurs with automobile service stations.

[58]Students of the planned shopping centre have distinguished four basic patterns. They are the mall, U-shape, L-shape and strip.

FIGURE 9



Winnipeg Planned Shopping Centre Building Design

Walk-ways in front of the stores were set back in order to accommodate diagonally parked cars and thus reducing the walking distance for customers. The Wildwood Shopping Centre is an example of this early experiment in serving the needs of the car driving public in a new residential area. Many of the most recently developed shopping centres in Winnipeg are of the strip-type and as such fit readily into existing commercial ribbons along major thoroughfares but by definition provide adjacent parking space (see Figure 10). A number have also been built to serve as neighbourhood level shopping centres in new residential areas such as Westwood. They are invariably small in size and in the number of stores they accommodate. These newer strip-type shopping centres differ somewhat from their earlier counterparts in that they are set back from the street a greater distance, they offer more limited access parking space and there is a smaller degree of variation in unit size among the stores. Most of the older strip-type shopping centres feature one relatively large food store along with a number of other smaller neighbourhood-oriented stores.

Many of the shopping centres that were developed during the 1950's and early 1960's have a L or U building pattern. These arrangements of the stores reduced the walking distance between stores, especially where there was a large number of them. The L- pattern was typically utilized in the case of a neighbourhood shopping centre that featured a large supermarket and a number of adjacent smaller stores. An example of this type of layout is the Regent Park Shopping Centre in Transcona. The Northgate Plaza in West Kildonan is a community shopping centre that is arranged in the classical U- pattern.

The walkways in the strip and L and U pattern shopping centres are usually open but are sometimes protected by a canopy. In most cases, however, these canopies do not protect the shopper adequately from adversities of weather. Some shopping centres of this type have walkways that are closed in

FIGURE 10. The Kelsey Shopping Centre is a recently developed planned strip. It is part of an existing commercial ribbon on Pembina Highway.

and weather proofed. This is the case with the Northgate Plaza and other shopping centres that are now competing with mall-type community and regional shopping centres that have been constructed in more recent years.

The Polo Park Shopping Centre was the first mall-type shopping centre to be developed in Winnipeg. Shoppers had to fight the elements of the weather even in this centre until it was enclosed in 1963. The enclosure improved the shopping atmosphere greatly. As a result of the weather proofing and landscaping of the mall area sales increased by fifteen percent in 1964.[59] Most of Winnipeg's regional and community shopping centres now have a covered mall area that was weather proofed and landscaped during construction. Many managers are also making more effective use of their shopping centre mall areas by offering space for displays and kiosks. The sterility of the earliest large shopping centres has been greatly reduced as efforts have been made to improve the shop-pedestrian customer relationship that formerly existed in the downtown area of North American cities.

Changes in Space Requirements

Winnipeg's earliest planned shopping centres contained a relatively small number of retail units. Their floor area was also quite small. For example, the Wildwood Shopping Centre had six units and a floor area of 10,500 square feet. This changed, however, as they became more popular and numerous during the 1950's and 1960's. Unit sizes became larger especially those designed for supermarkets and junior department stores. This trend towards larger unit size continues in the present design and construction of planned shopping centres. A large supermarket chain, Canada Safeway Limited, has

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[59]Morris, loc. cit., p. 26.

increased its unit sizes by 4.5 percent per year.[60]

Many of the most recently developed neighbourhood oriented planned shopping centres have been of the strip-type. The unit size of these shopping centres is relatively small, especially, in the case of those units that are designed for food stores. These stores were developed to serve the convenience food market and to provide every day needs such as bread and milk whereas the giant supermarkets have larger market areas and serve the consumer's weekly food requirements.

Thus, neighbourhood oriented shopping centres appear to be getting smaller in size while community and regional shopping centres are getting larger. Polo Park is still Winnipeg's largest planned shopping centre in terms of floor area and number of stores. Its main floor area is over 850,000 square feet and features seventy-five stores. Winnipeg's smallest planned shopping centre is located at Grant Avenue and Centennial Street, has two stores and covers about 3,600 square feet.

Recent Adaptation of Winnipeg's CBD

Winnipeg's CBD has experienced a significant loss in its retail and office functions that has been typical of most cities in North America during the past few decades. This is due, in part, to the problems of traffic congestion, a lack of car parking space, increasing distance to new residential areas, a lack of lateral expansion space, outmoded and aging buildings, prestige factors and government decentralization policies, among other reasons.

Efforts have been made to counteract these trends and problems. Attempts have been made to reduce the problems of accessibility by instituting one-way streets, synchronized traffic signals, "Express" buses from the suburbs,

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[60] The Winnipeg Tribune, January 15, 1974.

more and better river crossings and multi-storied parking garages. Attempts have also been made to make the downtown area a more pleasant place to be. Air-conditioned shopping malls and small parks have been developed to improve conditions for shopping during the summer months while a system of skywalks and underground mall areas will reduce the effects of the adversities of the winter (see Figure 11). In order to counteract the loss of much of the night time population in the downtown area, the development of high-rise apartment blocks that cater to the "swinging singles" and senior citizens has been encouraged.

Despite the decline in the CBD in its relative importance as a concentration of retail and office functions, growth has been experienced in the service industry. Between 1961 and 1966 there was an increase of 32.8 percent in this sector of the economy in both the CBD and the total Metropolitan area.[61] Further growth in this sector is being encouraged with the construction of the "Convention Centre". As a consequence new hotels, restaurants and other service-type businesses are being opened in its vicinity.

Growth in the cultural and entertainment functions is also being encouraged. The Centennial Concert Hall and the Museum of Man and Nature were constructed, in part, to aid in the revitalization of Main Street, Winnipeg's "skid row". A new branch of the Winnipeg Public Library is now under construction in the downtown area. Signs of new life are now evident in the office function of Winnipeg's CBD. At the time of this writing at least three new office towers are being constructed in the downtown area.

Winnipeg's CBD has had to adapt to the challenge of the many new planned shopping centres that have attracted the suburban shopper. The efforts

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[61] Winnipeg, City of, Downtown Development Plan, loc. cit., p. 81

FIGURE 11. Efforts have been made to revitalize the CBD and to make it more attractive to the consumer. In Winnipeg, enclosed skywalks and miniature portable parks are part of the program.

towards revitalization and adaptation to new conditions appears to have been at least somewhat effective as the core area is now experiencing growth in the service, office and cultural and entertainment functions (see Figure 12).

FIGURE 12. Though retailing has declined in the CBD, the service industry is growing with the new Convention Centre, new hotels and apartment blocks for "swinging singles". The CBD of Winnipeg is far from dead as evidenced by the amount of new construction in this area.

CHAPTER 4

AN ANALYSIS OF SELECTED CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

This chapter is an analysis of selected characteristics of Winnipeg's planned shopping centres.[62] As an initial part of this analysis the shopping centres are classified according to specified criteria and their functional variation is discussed. An effort is then made to demonstrate how various characteristics of planned shopping centres affect market area size. Finally, some consumer shopping and personal characteristics are discussed. The discussion is based on interviews with consumers at each of sixty-two Winnipeg shopping centres. Suggestions for further and more rigorous examination are made throughout. At the outset, however, the methods of data collection for this preliminary analysis are described.

Data Collection

The discussion and information presented in the preceeding pages is based on a review of relevant books and journals, lectures, interviews with shopping centre management and developers and daily newspaper files. This research has enabled a description of shopping centre development in North America in general and Winnipeg in particular, and a presentation of the findings of other researchers.

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[62] The data as collected and presented in this chapter do not lend themselves to rigorous quantitative analysis. As such, variables and relationships are discussed in terms of general trends and tendancies. It may well be possible, however, to test the latter for significant levels under conditions of better sampling and data collection techniques.

The data presented in this chapter was gathered by direct measurement in the field. For the most part, it was not available by any other means. Even though this data has not been examined by way of rigorous analytical techniques, an attempt has been made to collect the information in a form that would make such an analysis possible. Each shopping centre store and function had to be counted. Floor area figures had to be derived from floor plans or by direct measurement and employment information came by way of interviews with store owners and managers. Customer characteristics were determined through personal interviews at the various shopping centres.

It was necessary to engage teams of data collectors and customer interviews in order to carry out this research.[63] They were assigned to gather the required information and conduct market area analyses of the selected shopping centres after detailed instruction had been given to them (see Appendix III).

The teams were requested, firstly, to examine their respective shopping centres in terms of their physical characteristics. A plan view was to be drawn at the scale of one inch to fifty feet. The name, function and dimensions of each unit within the shopping centre were to be indicated. A list was also to be made of the stores in the shopping centre showing the respective frontage, floor area and number of employees. The stores were to be classified functionally according to a classification that had been used earlier in a study of Winnipeg's central business district (see Appendix IV).

Further, the market area of each shopping centre was to be examined. In order to carry out such an analysis, interviews were conducted to determine the point of origin of the shopping trip of randomly selected customers, their

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[63]The data collection and market area analysis teams of two to six persons each were composed of about one hundred students enrolled in an Urban Geography course given by Dr. R. C. Tiwari at the University of Manitoba. This assignment was carried out during the spring session of 1973.

mode of transportation, the number of stores they visited at the shopping centre, the number of stores they visited on route to the shopping centre and whether their trip started at home or elsewhere. The sex of each interviewee was also indicated. At least twenty-five interviews were conducted at each shopping centre or six interviews for each store in the shopping centre, whichever resulted in the larger number of interviews (see Appendix V).

The team members were asked, finally, to discuss the shopping centres for which they had gathered data comparatively. Of special interest was a comparison of the shopping centre market areas in terms of their size, shape and socio-economic characteristics. These were also to be related to the functions, size and number of stores for the respective shopping centres.

Not all of the group projects were conducted with the same degree of success and the instructions were not followed as well in some cases as they were in others. Although fewer than the requested number of interviews were completed, there was an adequate return for the purposes of a preliminary analysis. At least twenty-five interviews were conducted at each shopping centre. In a few cases, data relating to certain variables were not gathered. As a consequence only those variables for which there is adequate data and those that serve the purposes of this study are discussed and analysed.

Of primary interest are shopping centre functions, those shopping centre characteristics that influence a consumer to shop at one planned retail nucleation as opposed to others that might be reasonable alternatives and some of the shopping characteristics of those interviewed. Some of the questions that are asked in this study for general answers include: "Can a hierarchy of shopping centres be derived?"; "Why do consumers travel further to one shopping centre than to others?"; "Why are some shopping centres more successful than others?" and "Do consumer characteristics other than distance travelled vary with shopping centre characteristics?".

Classification of Winnipeg's Planned Shopping Centres

Intra-urban retail nucleations, as with their inter-urban counterparts (central places), have been classified on the basis of various criteria. As was demonstrated in Chapter 2, classifications have varied from simple typologies to ones based on market area size and functional coefficients where the derived sample hierarchy is tested against a theoretical hierarchy. The latter means of classification require the acceptance of theoretical assumptions such as system completeness and careful employment of analytical techniques.

The classification used in this study is basically that of Hoyt with a further subdivision employed by Simmons in his study of retail nucleations in Toronto. The basic classification is into regional, community, large neighbourhood and small neighbourhood shopping centres.[64] Another category that is added in this study of Winnipeg's planned shopping centres is Simmons's "planned strip" in view of the number that have been recently developed along the major traffic arteries of this city.

Winnipeg has two regional planned shopping centres, Polo Park and Garden City, having at least one large department store. The former meets Hoyt's criteria with over 900,000 square feet of retail space. The latter does not meet his criteria for classification as a regional shopping centre as it has less than 300,000 square feet of space for stores where 400,000 square feet are required. For the purposes of this study, however, the Garden City shopping centre is classified as regional in view of its one existing department store and the plans to open another in the near future along with other retail outlets.

There are thirteen community shopping centres in Winnipeg that have been designed to accommodate a junior department store or large variety store.

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[64]The criteria for Hoyt's classification are given in Chapter 2, p. 20.

Only eight of these are over the 100,000 square foot size that is Hoyt's lower limit for designation as community shopping centres even though they satisfy his other criteria. The rest could be classified as "small" community shopping centres. Winnipeg's largest community shopping centre, Grant Park, is over 395,000 square feet in floor area and features two junior department stores, two large supermarkets and an enclosed mall area. Most of the remaining community shopping centres have one junior department store and one food store each.

Winnipeg has five neighbourhood shopping centres with over 50,000 square feet in floor area and twenty-eight that have less than 50,000 square feet. The majority were developed in conjunction with residential subdivisions and were designed to serve a relatively small area. As is indicated in the following section, some of these shopping centres have been less successful than others. Their distribution is largely coincident with the residential areas that have come into existence during the past twenty years. There have been exceptions, however, as the Sargent and Sherbrook development is situated in an older residential area where there was a real need for car parking space.

Strip type shopping centres are a relatively recent development in Winnipeg. Fourteen of the shopping centres examined are of this type. All are quite small, ranging in size from two to nine stores. Like unplanned strip developments there appears to be little consistency in the functions present in each though most feature a small food store and frequently a "take out" food place. They are designed primarily to fit into an existing commercial strip development and to enable ready access by car.

Hoyt's typology is primarily descriptive in nature. Other techniques could have been used with similar results. Winnipeg's planned shopping centres might be further classified by using an analysis similar to that of

Berry in his Chicago study or by Simmons in his Toronto classification. Analysis of covariance might also be used in which the number of shopping centre functions are regressed on trade area size or number of stores (see Figure 13). Hierarchy levels are often determined by testing for significance of slope difference or by grouping. These methods of analysis would require more rigorous sampling techniques than are employed in this study. Care would have to be taken, in particular, if a comparison was to be made with a theoretical hierarchy because planned shopping centres are at most a subsystem of the total intra-urban retail structure.

Functional Variation Among Winnipeg's Planned Shopping Centres

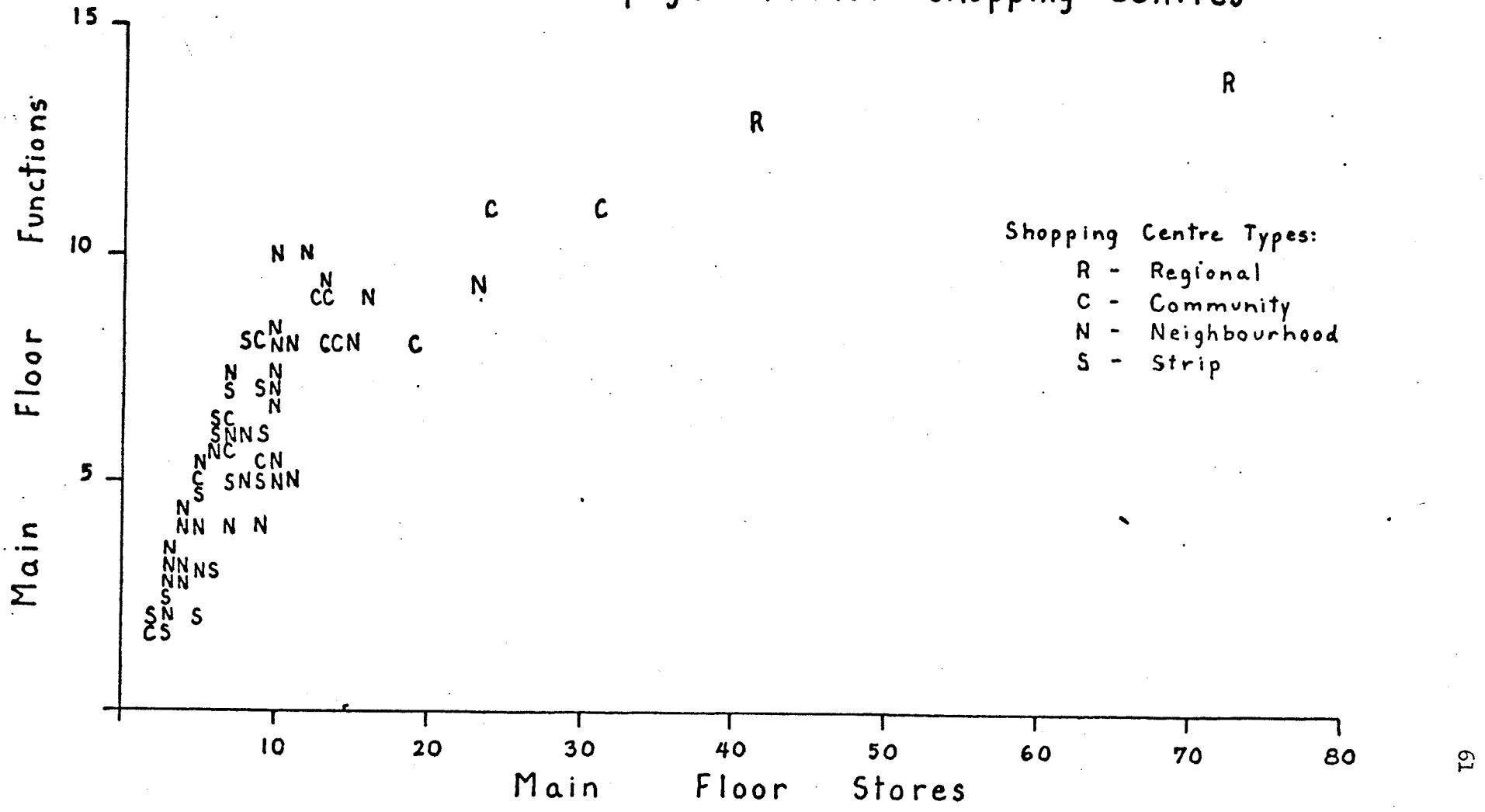
It has been demonstrated that Winnipeg's planned shopping centres vary on the basis of a number of characteristics including location, building design and hierarchy level. They also vary on the basis of the number of stores they have and the types of goods that are offered.

A basic finding in this study that supports work undertaken by other researchers is that the larger a shopping centre is in terms of the number of stores, the more types of goods are offered. Also demonstrated is the fact that certain types of goods are found in almost every shopping centre while others are found in only a few.

The most ubiquitous type of retail outlet in Winnipeg's planned shopping centres is the food store. Of the sixty-two shopping centres that were examined in detail, fifty-six feature at least one food outlet. Those without food stores are either quite new and situated near a major supermarket or once had food stores that eventually became uneconomical to operate. The latter is the case with three of Winnipeg's earliest shopping centres, the Wildwood, St. James and Pembina and Stafford shopping centres where their food stores became too small for contemporary techniques in food marketing and the

FIGURE 13

Main Floor Functions and Stores of Winnipeg's Planned Shopping Centres



opening of a nearby, larger supermarket resulted in the closing of their doors.

Personal service outlets such as barber shops and hair dressers are found almost as frequently as food stores. Forty-six of the planned shopping centres have financial services such as banks and loan offices. Eating places are found in thirty-one shopping centres while professional services such as those provided by doctors and dentists and pharmacies are available in a slightly smaller number of cases. Thus, a typical small neighbourhood shopping centre in Winnipeg has a food store, bank, drug store, "take out" food place, barber and hair dresser and possibly a doctor's or dentist's office.

With the exception of a few instances, apparel stores are located in shopping centres of the community type that are larger and more widely spaced than the neighbourhood planned retail nucleations. They are located in higher order shopping centres along with other stores featuring higher order or shopping goods that require a larger market area in order to survive.

By definition department stores are found in regional planned shopping centres. These are the largest and most widely separated planned retail nucleations under study. Junior department stores are the chief tenants in community shopping centres but are also found in Winnipeg's largest regional planned shopping centre, Polo Park.

Hardware, appliance and home furnishing stores are fairly widely dispersed among the types of shopping centres studied. They tend not to be located in any particular level of shopping centre and are found in neighbourhood as well as regional planned shopping centres. In some cases, as with the St. James and Stafford Avenue and Pembina Highway shopping centres, a large lumber firm is now the chief tenant where a food store was once the main store.

Vacancy rates also vary among Winnipeg's planned shopping centres. In general, there are more vacant units within a shopping centre if it is

relatively old, new or large. In the case of older shopping centres such as the Wildwood Shopping Centre and the Fort Richmond Shopping Centre, high vacancy rates are a result of the establishment of a large new shopping centre in the vicinity and what is now a poor location. The stores in the older shopping centres have not been able to compete effectively with the larger, newer stores and have been consequently closed or moved to the new shopping centre. Vacancy rates are high in the newest shopping centres because it usually takes some time before all of the available retail space is rented. The largest centres usually have some vacant space but this is a factor of the number of units that have to be leased.

Shopping Centre Characteristics and Market Areas

A purpose of this study is to examine in a general way the relationship between various shopping centre characteristics and their market areas. For reasons of incompleteness of data, inadequacy of sampling techniques and a sample size that was too small, no attempt has been made to use rigorous quantitative methods of analysis. As such, relationships are discussed in terms of trends by way of scattergrams and suggestions are made for further research that may well substantiate these trends. Recommendations are made for the examination of additional characteristics that may possibly affect market area size. Some characteristics that are not likely to affect market area size are also mentioned. At the outset, however, those variables that are to be discussed in this preliminary analysis are presented along with reasons for their inclusion or exclusion in the analysis.

1. The dependent variable - market area size: Before any attempt can be made to discuss the affect of various shopping centre characteristics on the market area size, it is necessary to select a measure of trade area. A number of means of measurement can be considered including a variation on

Reilly's Law of Retail Gravitation where the number of stores or shopping centre functions are substituted for population figures and the distance measured is to the closest same or larger size shopping centre. This method was not used because unplanned retail nucleation and commercial ribbon development data should be considered but were not available. Average distance travelled by sampled shopping centre customers from within Winnipeg was also considered but was rejected as being a poor measure of market area size, in part, because of the uneven distribution of urban populations though it can be used to slow market area convolutions (see Figure 14). The measure that was decided upon is the one that was used by Berry in his Chicago study. He defined a market area as that distance sampled consumers travel to a shopping centre before there is a final levelling off in participation. A cumulative frequency graph is employed to show this levelling off. This method is relatively easy to use, it is generally less affected by variation in population densities within an urban area and has been employed by other researchers. In this study it is called the "drop-off" distance.

2. The independent variables: "How and to what degree do the characteristics of a shopping centre affect its market area?" The following is a discussion of some of the independent variables originally considered for the analysis:

a. Floor area: This measure is an indicator of shopping centre size. It is hypothesized that as shopping centre size increases, its market area will also increase. The larger a shopping centre is the more attractive it is to customers with the result that they will travel a greater distance.

b. Number of functions: It is also hypothesized that the attractiveness of a shopping centre is also related to the variety of goods and services that it has available. A number of classifications of the functions of shopping

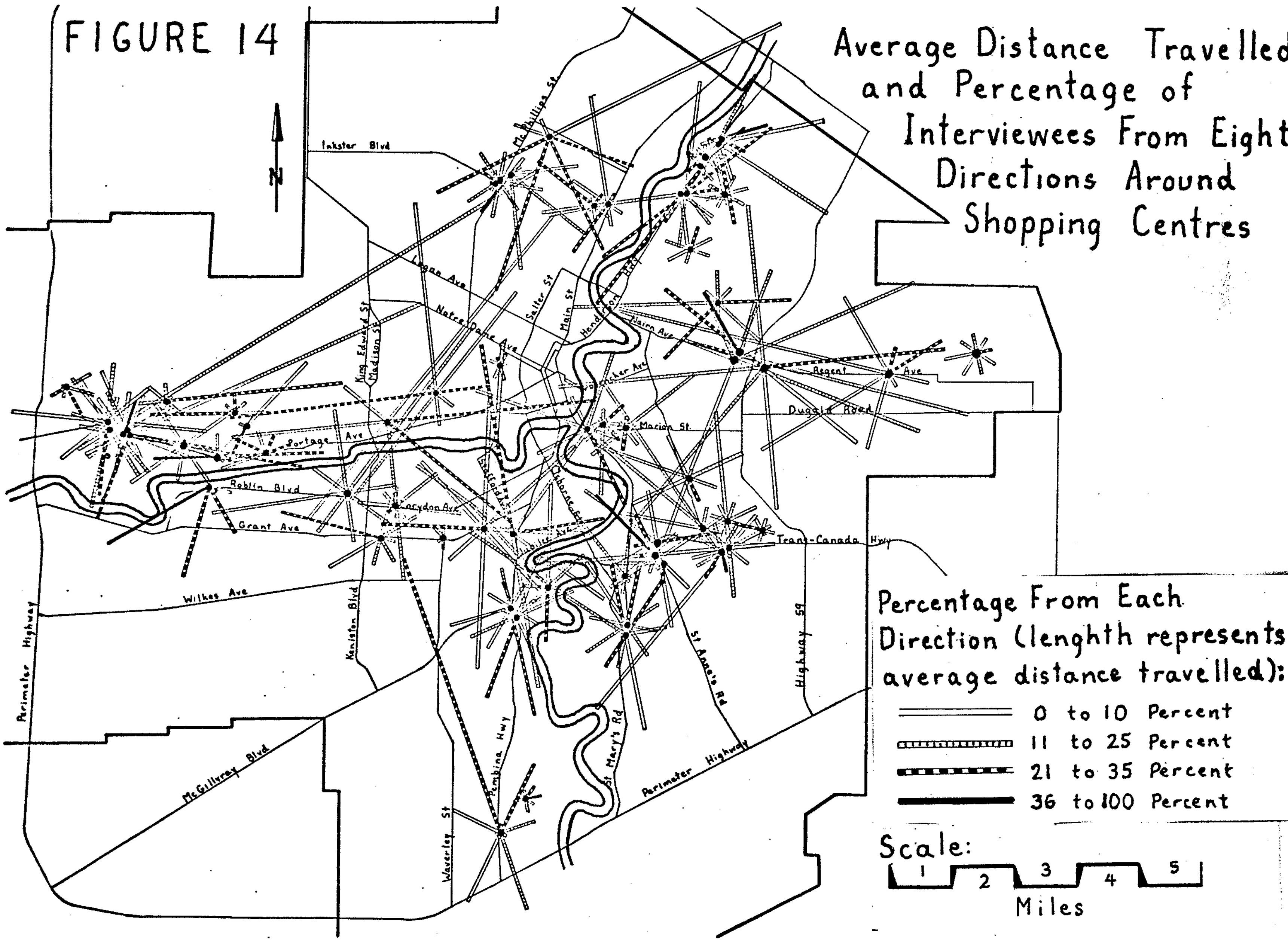


FIGURE 14

Average Distance Travelled and Percentage of Interviewees From Eight Directions Around Shopping Centres

centres have been derived. Berry used such a typology for his Chicago study and others have been derived such as that in The Community Builder's Handbook and the Standard Industrial Classification.[65] Because of the variety of classifications, it was decided to consider at least two of them for use as measures of a shopping centre's functions. Berry's classification was used as was another that makes use of the broad categories derived from The Community Builder's Handbook and the Standard Industrial Classification Manual. The latter is a general classification of business types and building uses that was employed in a recent study of commercial ribbon development in Winnipeg.

c. Number of employees: It was hypothesized that as the number of employees a shopping centre has increases, customers will be drawn from a greater distance: This attractiveness is, in part, a function of the service that a greater number of employees represents, a consideration for higher class customers who are able to travel a greater distance.

d. Floor area of the leading tenant: A casual survey of the data collected indicates that shopping centres with the largest number of stores did not always have the biggest stores. It is felt, therefore, that this variable should be included in the analysis in order to determine whether the size of the largest store has any bearing on the size of shopping centre market areas or the distance customers are willing to travel to do their shopping.

e. Number of stores: Even though this variable is obviously highly correlated with the number of functions a shopping centre has and its size in terms of floor area, it is considered for inclusion in the analysis of variables that are hypothesized to have an influence on the distance consumers will

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[65] J. Ross McKeeve (ed.), The Community Builders Handbook (Washington: Urban Land Institute, 1968), p. 331 and U. S. Bureau of the Budget, Office of Statistical Standard, Standard Industrial Classification Manual (U. S. Government Print Office, 1967).

travel. Also, the number of stores a shopping centre has differs from its number of function types especially among those of the highest levels. Thus the question that may be answered relates to whether it is the number of stores in a shopping centre or the number of functions that attracts customers to regional and larger community shopping centres to the greatest degree (see Figures 15, 16 and 17).

f. Average store size: This variable is considered for inclusion in the preliminary analysis in view of changes that have taken place in the field of retailing over the past forty years. Self service, new techniques in shelf stocking and an increased range of products have all contributed to an increase in store size. This trend continues today. The point of inquiry is to what extent average store size has an influence on the patronage of shopping centres as reflected in the distance customers travel to make their purchases.

g. Parking lot size: It is hypothesized that as the size of a shopping centre's parking lot increases, its market area will also increase in size. The presence of an adjacent parking lot is one of the basic characteristics of a planned shopping centre. In fact, the parking lot of the outlying planned shopping centre facilitates the suburbanite's shopping trip to such an extent that he has been effectively attracted away from the congested downtown area. The point of investigation is whether there is a relationship between parking lot size and the distance customers are willing to travel to shop at one shopping centre as opposed to another.

There are most of the independent variables that were considered for inclusion in the analysis and the questions and hypotheses that have been posed in each case. Only one measure of each independent variable is used. In most cases only the main floor measures are used because this is where most

FIGURE 15

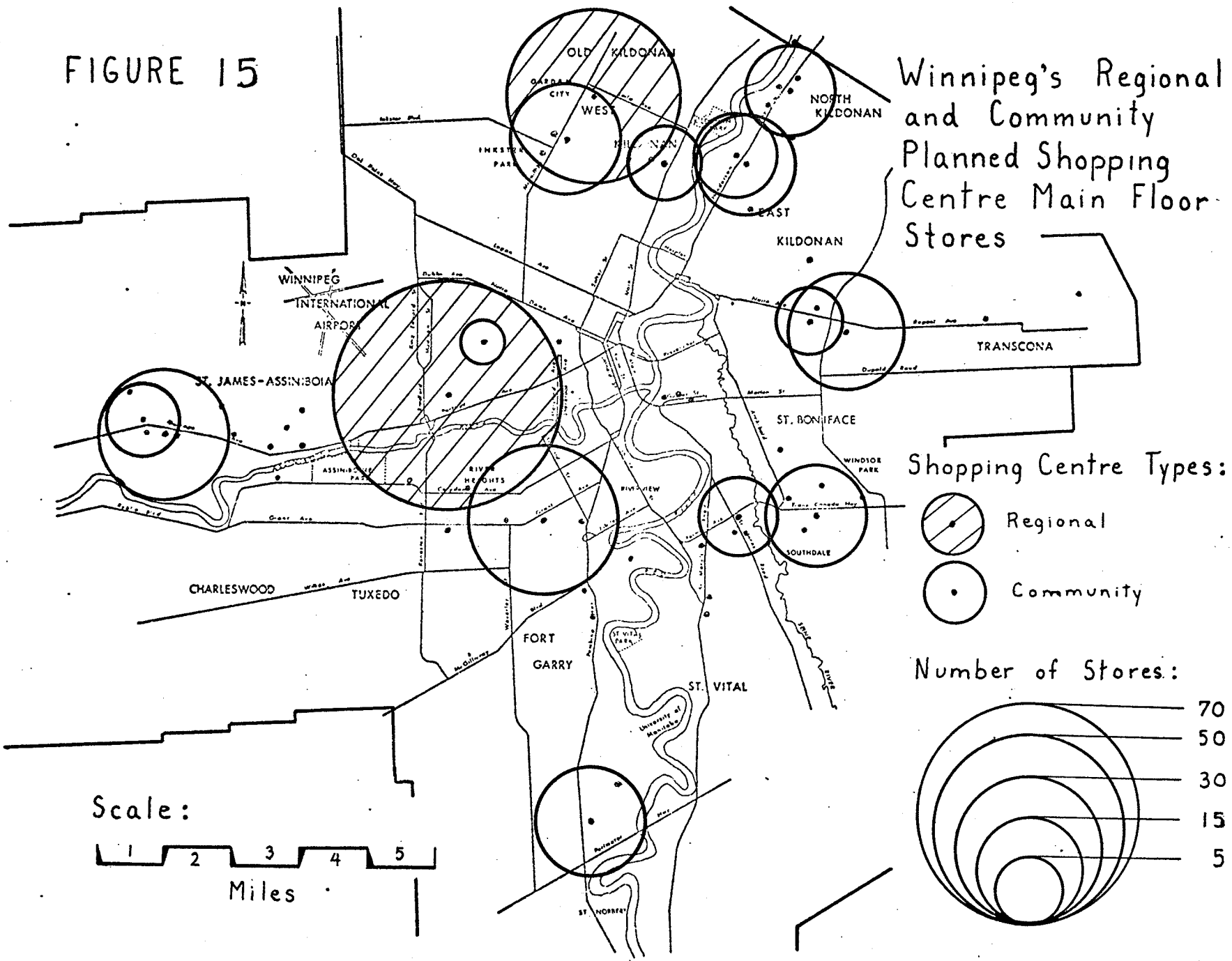

Winnipeg's Regional and Community Planned Shopping Centre Main Floor Stores
OLD KILDONAN
NORTH KILDONAN
EAST KILDONAN
TRANSCONA
WINNIPEG INTERNATIONAL AIRPORT
ST. JAMES-ASSINIBOIA
ST. BONIFACE
WINDSOR PARK
SOUTHDALE
CHARLESWOOD
TUXEDO
FORT GARRY
ST. VITAL
ST. NORBERT
Shopping Centre Types:
Regional
Community
Number of Stores:
70
50
30
15
5
Scale:
1 2 3 4 5
Miles

FIGURE 16

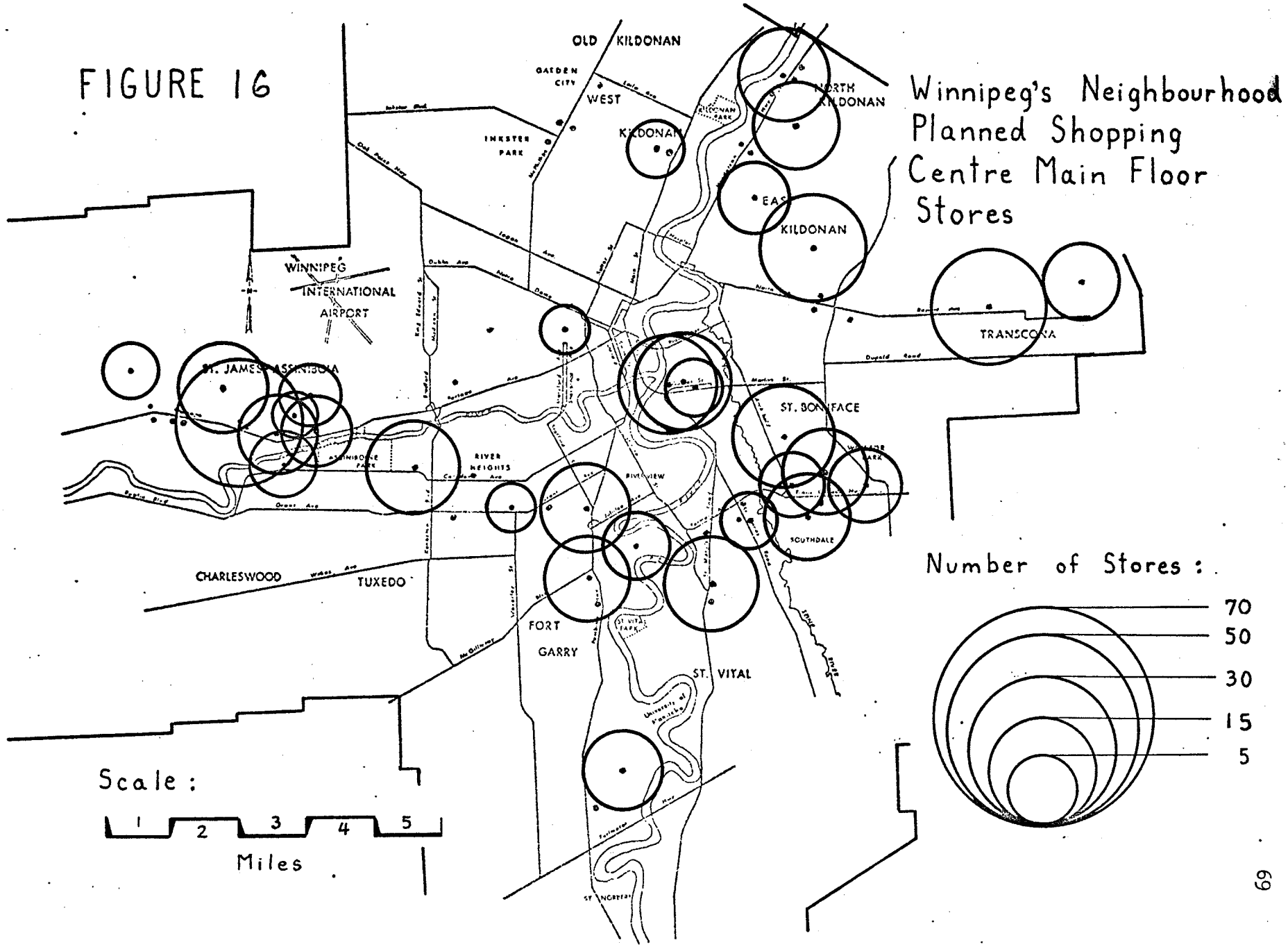
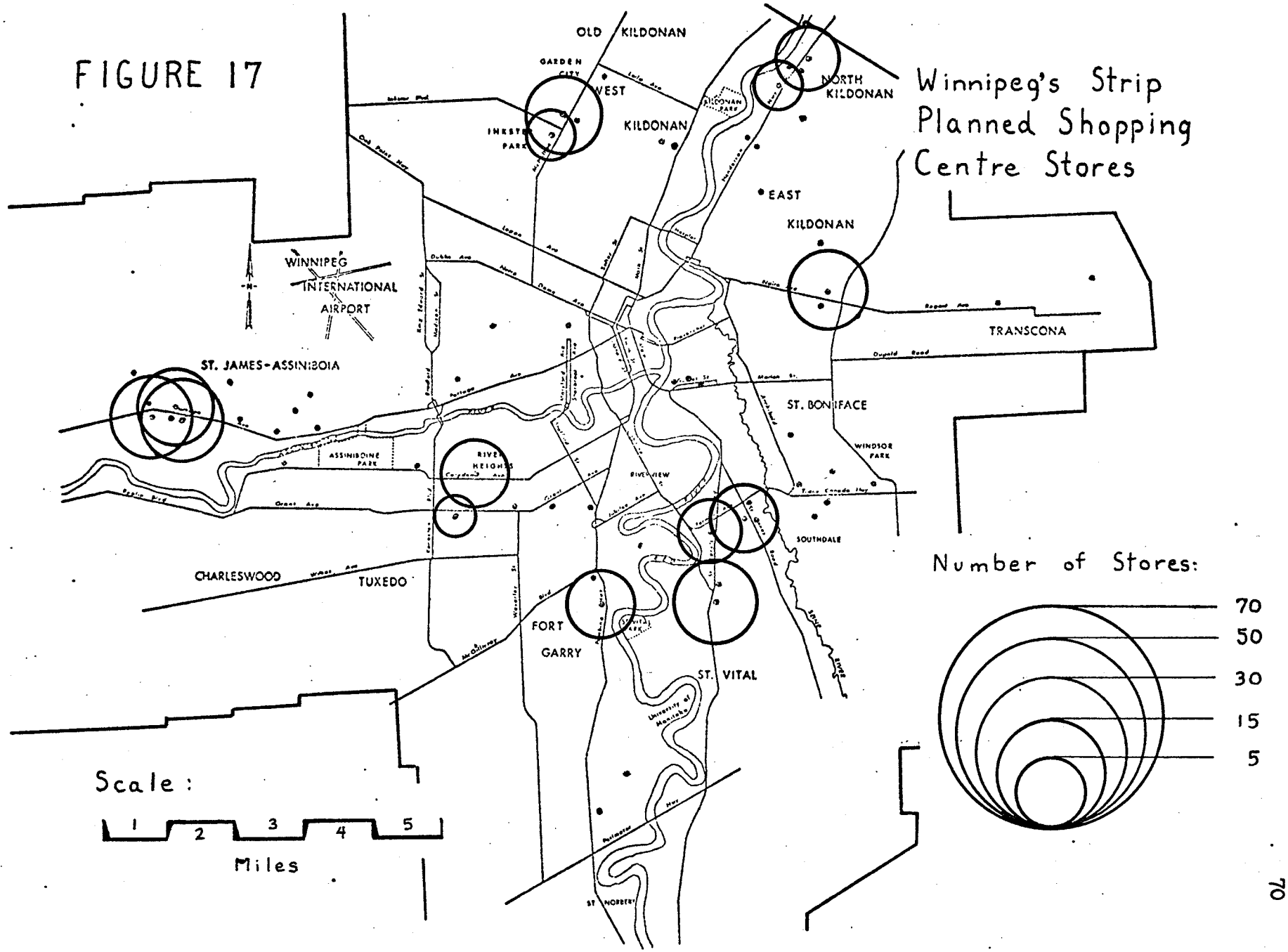

Winnipeg's Neighbourhood Planned Shopping Centre Main Floor Stores
OLD KILDONAN
GARDEN CITY
WEST KILDONAN
NORTH KILDONAN
INKSTER PARK
EAST KILDONAN
WINNIPEG INTERNATIONAL AIRPORT
TRANSCONA
ST. JAMES-ASSINIBOIA
ST. BONIFACE
RIVER HEIGHTS
RIVERVIEW
SOUTHDALE
CHARLESWOOD
TUXEDO
FORT GARRY
ST. VITAL
Number of Stores :
70
50
30
15
5
Scale :
1 2 3 4 5
Miles

FIGURE 17


Winnipeg's Strip Planned Shopping Centre Stores
OLD KILDONAN
GARDEN CITY WEST
KILDONAN
NORTH KILDONAN
EAST KILDONAN
WINNIPEG INTERNATIONAL AIRPORT
ST. JAMES-ASSINIBOIA
TRANSCONA
ST. BONIFACE
WINDSOR PARK
SOUTHDALE
CHARLESWOOD
TUXEDO
FORT GARRY
ST. VITAL
ST. NORBERT
Number of Stores:
70
50
30
15
5
Scale :
1 2 3 4 5
Miles

of the retail activity takes place. The functional classification employed in this analysis is the one derived from the Community Builder's Handbook and the Standard Industrial Index because of its fewer categories that make it easier to work with than Berry's classification. Parking lot size cannot be examined as an independent variable in this analysis because of the incompleteness of the information that was gathered about this characteristic of Winnipeg's planned shopping centres.

The independent variables used in the analysis are the number of stores, number of functions, average store size, size of the largest tenant, total floor area and number of employees. In order to determine the degree to which each of these variables has an influence on the distance travelled by the sample population, each has been plotted against the dependent variable (see Appendix VI). The relationships appear to be largely linear in each case and no transformation appears to be necessary.

An examination of each of the variables as plotted against the distance travelled to each shopping centre indicates a fairly high positive relationship except in the case of "average store size". In this case the scatter appears to be positive but it is quite unlikely that a significant relationship exists. It is difficult to determine which of the other variables has the highest degree of relationship with the dependent variable though the "shopping centre functions" curve appears to have less of a scatter than that of the "number of stores". This is also the case with the "size of the largest tenant" curve.

It would appear, then, from this preliminary analysis that there is a positive relationship between the selected variables and shopping centre market area. There is at least one variable ("average store size") that has a

very small level of relationship. This variable should not be considered in a further analysis under more rigorous conditions that would warrant accurate measurement of the extent of the relationship between the independent variables and the dependent variable and enable hypothesis testing. Added to a more rigorous analysis should be the independent variable, parking lot size.

A suggested model for a more rigorous analysis is the stepwise multiple regression model. It is possible to determine levels of the significance of variable relationships by using this analytical technique and the relative amount of variance each variable explains.

To warrant the use of this model, improved measurement of the variables must be insured. A larger sample of shoppers must be taken. At least fifty interviews at each shopping centre would be advisable. An effort must also be made to derive as unbiased a sample as possible. Interviews must be conducted in representative areas of a shopping centre and they should be conducted at all times of the day, week, month and year in order to get a better aggregate representation of market area size. Comparisons between times of day, week, etc. could also be made regarding distance travelled. Measurement of the independent variables must also be made accurately.

Customer Interview Data Presentation

As the shopping centre market areas were being determined, the sample customers were asked a number of questions about their shopping trip. They were asked about their mode of transportation, the number of stores they visited at the shopping centre, the stores they had visited on their way, if they were from out-of-town and if their trip had started at home or elsewhere. The sex of each interviewee was also indicated. The following is a brief discussion of the results.

Mode of transportation was almost exclusively by car or on foot with a few going to the planned shopping centres by bus. The larger the shopping centre the more shoppers tended to come by car while there was a corresponding decrease in the number who came on foot. It is the ubiquitousness of the car that has brought about the planned shopping centre phenomenon and makes it possible for variation in market area size.

Quite expectedly was the outcome that customers visit more stores at large shopping centres than at small shopping centres. There are, of course, more stores to visit at a larger shopping centre but there is also the fact to consider that larger shopping centres feature higher order "shoppers goods" while smaller shopping centres are oriented to the more frequently needed convenience goods.

There does not appear to be a great deal of interaction between shopping centres and other stores as was demonstrated by the inconsistent variation in the frequency with which other stores were visited as part of a customer's trip to a shopping centre. A customer is just as likely to stop at another store or shopping centre on his way to the place where he was interviewed if it is large or small. There may be a tendancy to make multiple stop trips to strip type highway oriented shopping centres though this must be further substantiated.

It was found that out-of-town shoppers tend to visit large planned shopping centres rather than small ones. As many as fifteen percent of those interviewed at large shopping centres were from out-of-town. This tends to be particularly the case with shopping centres that are located towards the urban fringe. The Fort Richmond Plaza and the Crossroads Shopping Centre are examples of where there is this tendancy.

Most shopping trips originated at the consumers' homes. Insufficient

data was gathered, however, to warrant drawing any conclusions as to whether there was any variation with shopping centre size and other characteristics or not.

Regarding personal characteristics, the majority of thos interviewed were females who, it would appear, still do most of the household shopping. This tended to be less the case, however, with larger shopping centres.

CHAPTER 5

CONCLUSIONS

Major changes have taken place in the fabric of the North American city. These have been largely a result of transportation improvements and the urbanization and suburbanization of the population. The development of planned shopping centres is a case of the adaptation of the intra-urban retail structure to these changes that have taken place over the past four decades. This study has aimed at examining planned shopping centres, their development, changes and impact on other elements of the intra-urban retail structure such as the CBD. It was also an analysis of the characteristics of planned shopping centres and their influence on shopping area size, a classification of Winnipeg's planned shopping centres and an examination of consumer shopping patterns.

Planned shopping centres are now a major feature of the intra-urban retail structure. They will continue to be developed and improved in order to provide maximum access to the consumer. There is therefore a constant need for an updated understanding of factors affecting their attractiveness to the consumer and customer shopping patterns if shopping centres are to continue to be successful.

Winnipeg's planned shopping centres have been developed in response to new techniques in retailing, suburbanization and the increased use of the automobile. Their development and distribution have been coincident with new residential area expansion since World War II. Other factors have also affected Winnipeg's shopping centre development and distribution. These should be the subject of further research. Over the years there have been

improvements in shopping centre location and design. Their introduction has resulted in a loss of sales and subsequent adaptation in older retail nucleations. As a consequence, Winnipeg's CBD has become more specialized in the service industry.

The results of the analysis of shopping centre characteristics demonstrate trends to the effect that variables such as the "number of shopping centre functions" and the "size of the largest store" influence consumer travel distance to shopping centres more than other characteristics. These trends may well be substantiated by way of more rigorous methods of sampling and analysis. Further research should also support the classification of the shopping centres that was undertaken and results of the customer survey.

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APPENDICES

APPENDIX I

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Name of Shopping Centre	Closest Intersection	Date Opened
1	Polo Park S. C.	Portage Ave. and St. James St.	1959
2	Garden City S. C.	Leila Ave. and McPhillips St.	1970
3	Grant Park Plaza	Grant Ave. and Wilton St.	1963
4	Courts of St. James S. C.	Portage Ave. and Booth Dr.	1967
5	Silver Heights S. C.	Portage Ave. and Mount Royal Rd.	1954
6	Westwood S. C.	Portage Ave. and Westwood Dr.	1964
7	Tuxedo Park S. C.	Corydon Ave. and Tuxedo Ave.	1963
8	Crossroads S. C.	Regent Ave. and Lagimodiere Blvd.	1966
9	Regent Park S. C.	Regent Ave. and Brewster St.	1961
10	Windsor Park S. C.	Elizabeth Rd. and Brewster St.	1962
11	Northdale S. C.	McLeod Ave. and Henderson Hwy.	1965
12	Fort Richmond Plaza	Killarney Ave. and Pembina Hwy.	1972
13	Southdale S. C.	Trans - Canada Hwy and Lakewood Blvd.	1966
14	Monroe S. C.	Monroe Ave. and London St.	1960
15	Dakota Village S. C.	Dunkirk Dr. and St. Mary's Rd.	1963
16	Springfield Heights S. C.	Kingsford Ave. and Rothesay St.	1962
17	Northgate Plaza	Carruthers Ave. and McPhillips St.	1962
18	Dominion S. C.	Goulet St. and St. Mary's Rd.	1963
19	Goulet and Tache S. C.	Goulet St. and Tache Ave.	1964
20	Southgate Village S. C.	McGillvray Blvd. and Pembina Hwy.	1963
21	Rossmere S. C.	Rowendale Ave. and Henderson Hwy.	1961
22	Stafford and Pembina S. C.	Stafford Ave. and Pembina Hwy.	1956

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Name of Shopping Centre	Closest Intersection	Date Opened
23	Sturgeon Park Plaza	Ness Ave. and Sturgeon Rd.	1956
24	Saxon Village S. C.	Whellams Lane and Henderson Hwy.	1972
25	Cottonwood S. C.	Cottonwood Rd. and Autumnwood Dr.	1960
26	Beliveau S. C.	Beliveau Rd. and St. Mary's Rd.	1970
27	Niakwa Inn S. C.	Comanche Rd. and Archibald St.	1965
28	St. James S. C.	Portage Ave. and Ainslie St.	1958
29	Kern Park S. C.	Kildare Ave. and Wayoata St.	1965
30	Fort Richmond S. C.	Silverstone Ave. and Dalhousie Dr.	1967
31	Nairn and #59 S. C.	Nairn Ave. and Panet Rd.(south side)	1964
32	Lakewood and Weatherstone	Weatherstone Pl. and Lakewood Blvd.	1971
33	Paterson and Westmount S. C.	Paterson St. and Westmount Dr.	1966
34	Village Inn S. C.	Portage Ave. and Westwood Dr.	1966
35	Portage and Rouge S. C.	Portage Ave. and Rouge Rd.	1970
36	McPhillips and Lansdown	McPhillips St. and Lansdown Ave.	1963
37	West Kildonan S. C.	Jefferson Ave. and Main St.	1958
38	Kelsey S. C.	Kelsey Ave. and Pembina Hwy.	1971
39	Hull S. C.	Hull Ave. and St. Anne's Rd.	1967
40	Renfrew S. C.	Corydon Ave. and Renfrew St.	1971
41	Charleswood S. C.	Roblin Blvd. and Royal Rd.	1961
42	Crestview S. C.	Portage Ave. and Cavalier Dr.	1966
43	Park Hill S. C.	Portage Ave. and Park Hill St.	1966
44	Ness and Whytewold S. C.	Ness Ave. and Whytewold Rd.	1963

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Name of Shopping Centre	Closest Intersection	Date Opened
45	Nairn and #59 S. C. (II)	Nairn Ave. and Panet Rd.(north side)	1961
46	Henderson and Stuart S. C.	Henderson Hwy. and Stuart Ave.	1970
47	River East Plaza	Henderson Hwy. and Douglas Ave.	1972
48	Wildwood S. C.	Point Rd. and Oakenwald Ave.	1947
49	Bronstone and St. Mary's	Bronstone Ave. and St. Mary's Rd.	1971
50	Goulet and Braemar S. C.	Goulet St. and Braemar St.	1966
51	Watt and Kimberly S. C.	Watt St. and Kimberly Ave.	1958
52	Fernwood and St. Anne's	Fernwood Ave. and St. Anne's Rd.	1967
53	Niakwa Village S. C.	Trans-Canada Hwy. and St. Anne's Rd.	1968
54	Knox and Hamilton S. C.	Hamilton Ave. and Knox St.	1970
55	Bruce and Strathwilliam	Bruce Ave. and Strathwilliam Rd.	1954
56	Salter and Enniskillen S.C.	Salter St. and Enniskillen Ave.	1947
57	Grant and WaverleyS. C.	Grant Ave. and Waverley	1958
58	Sherbrook and Sargent S. C.	Sherbrook St. and Sargent Ave.	1958
59	McPhillips and Polson S. C.	McPhillips St. and Polson Ave.	1971
60	Henderson And Essar S. C.	Henderson Hwy. and Essar Ave.	1968
61	Grant and Centennial S. C.	Grant Ave. and Centennial St.	1967
62	Red River Co-Op S. C.	Ellice Ave. and Wall St.	1958

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Community Committee Areas	Number of Units or Stores		Floor Area (square feet)			
		Main Floor	Total	Main Floor	Total	Average of Total	Leading Tenant
1	Midland	72	108	871,590	942,346	8,725.4	230,000
2	West Kildonan	41	41	285,132	285,132	6,954.4	192,000
3	Fort Rouge	31	40	395,038	413,864	10,347.0	149,232
4	St. James-Assiniboia	23	34	47,318	54,082	1,590.6	14,685
5	St. James-Assiniboia	5	17	12,000	36,000	2,118.0	5,625
6	St. James-Assiniboia	24	24	116,325	116,325	4,846.9	66,528
7	Assiniboine Park	12	18	42,670	73,069	4,059.0	20,925
8	Transcona	19	19	180,663	180,663	9,508.6	124,800
9	Transcona	16	17	48,650	58,850	3,462.0	162,000
10	St. Boniface	15	16	28,516	35,716	2,232.0	11,000
11	East Kildonan	13	13	113,711	113,711	8,747.0	48,720
12	Fort Garry	14	14	130,804	130,804	9,343.1	71,024
13	St. Boniface	13	13	114,770	114,770	8,828.5	76.560
14	East Kildonan	15	15	23,540	23,540	1,569.3	7,000
15	St. Vital	11	12	34,186	51,931	4,328.0	17,280
16	East Kildonan	10	10	19,898	19,898	1,989.8	7,200
17	West Kildonan	14	14	108,322	108,322	7,737.3	40,800
18	St. Boniface	13	13	51,320	51,320	3,947.7	23,800
19	St. Boniface	11	11	15,054	15,054	1,368.5	2,400
20	Fort Garry	10	10	34,486	34,486	3,448.6	22,590
21	East Kildonan	9	10	36,480	48,684	4,868.4	26,300

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Community Committee Areas	Number of Units or Stores		Floor Area (square feet)			
		Main Floor	Total	Main Floor	Total	Average of Total	Leading Tenant
22	Fort Rouge	10	10	43,325	43,325	4,332.5	16,350
23	St. James-Assiniboia	10	10	42,207	42,207	4,220.7	29,512
24	East Kildonan	10	10	12,528	12,528	1,252.8	16,500
25	St. Boniface	10	10	38,975	38,975	3,897.5	20,475
26	St. Vital	9	9	8,670	8,670	963.3	1,822
27	St. Vital	5	13	3,768	6,695	515.0	1,344
28	St. James-Assiniboia	8	8	19,280	19,280	2,406.3	9,676
29	Transcona	7	7	31,300	31,300	4,471.4	20,000
30	Fort Garry	8	8	13,250	13,250	1,656.3	4,000
31	St. Johns	5	5	76,120	76,120	15,224.0	64,000
32	St. Boniface	10	10	18,696	18,696	1,869.6	4,510
33	St. Boniface	7	7	13,085	13,085	1,869.3	4,935
34	St. James-Assiniboia	9	9	33,925	33,925	3,769.4	11,900
35	St. James-Assiniboia	9	9	11,650	11,650	1,294.4	2,700
36	Lord Selkirk	7	7	5,200	5,200	742.9	800
37	West Kildonan	7	7	38,100	38,100	5,442.9	19,000
38	Fort Garry	6	6	7,434	7,434	1,239.0	1,911
39	St. Boniface	6	6	6,000	6,000	1,000.0	1,800
40	Assiniboine Park	6	6	7,560	7,560	1,260.0	1,260
41	Assiniboine Park	5	5	14,370	14,370	2,874.0	7,890
42	St. James-Assiniboia	6	6	98,750	98,750	16,458.3	80,000

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Community Committee Areas	Number of Units or Stores		Floor Area (square feet)			
		Main Floor	Total	Main Floor	Total	Average of Total	Leading Tenant
43	St. James-Assiniboia	7	7	7,315	7,315	1,045.0	28,350
44	St. James-Assiniboia	5	5	12,500	12,500	2,500.0	6,500
45	St. Johns	8	8	54,771	54,771	6,846.4	23,537
46	East Kildonan	5	5	7,983	7,983	1,596.6	2,808
47	East Kildonan	9	9	72,124	72,124	8,013.8	50,596
48	Fort Garry	6	6	10,635	10,635	1,772.5	4,245
49	St. Vital	5	5	6,989	6,989	1,397.8	2,446
50	St. Boniface	4	4	21,000	21,000	5,250.0	16,270
51	East Kildonan	7	7	11,200	6,600	942.9	3,000
52	St. Vital	4	4	11,200	11,200	2,800.0	5,859
53	St. Vital	7	7	104,650	104,650	14,950.0	22,230
54	St. James-Assinoboia	4	4	5,720	5,720	1,430.0	2,240
55	St. James-Assinoboia	3	3	4,130	4,130	1,376.7	2,275
56	West Kildonan	4	4	6,224	6,224	1,556.0	2,540
57	Fort Rouge	3	3	11,634	11,634	3,878.0	8,061
58	Centennial	3	3	26,270	26,270	8,756.7	17,000
59	Lord Selkirk	3	3	6,508	6,508	2,169.3	3,060
60	East Kildonan	3	3	5,600	5,600	1,866.7	4,000
61	Assiniboine Park	2	2	3,600	3,600	1,800.0	2,000
62	Midland	2	2	39,992	39,992	19,996.0	37,400

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Shopping Centre Type	Leading Tenant by Function Type	Function Types: Retail Trade: General Merchandise: Department		Junior Department		Other General Merchandise	
			Main Floor	Total	Main Floor	Total	Main Floor	Total
1	regional	department	2	2	2	2	-	-
2	small regional	department	1	1	-	-	-	-
3	community	junior department	-	-	2	2	-	-
4	large neighbourhood	food	-	-	2	2	-	-
5	small neighbourhood	food	-	-	-	-	-	-
6	community	junior department	-	-	1	1	-	-
7	large neighbourhood	food	-	-	-	-	-	-
8	community	junior department	-	-	1	1	-	-
9	large neighbourhood	food	-	-	-	-	-	-
10	small neighbourhood	food	-	-	-	-	-	-
11	community	junior department	-	-	1	1	-	-
12	community	junior department	-	-	1	1	-	-
13	community	junior department	-	-	1	1	-	-
14	small neighbourhood	food	-	-	-	-	-	-
15	large neighbourhood	food	-	-	-	-	-	-
16	small neighbourhood	food	-	-	-	-	-	-
17	community	junior department	-	-	2	2	-	-
18	large neighbourhood	food	-	-	-	-	-	-
19	small neighbourhood	finance	-	-	-	-	-	-
20	small neighbourhood	food	-	-	-	-	-	-
21	small community	other general merchandise	-	-	-	-	1	1

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Shopping Centre Type	Leading Tenant by Function Type	Function Types					
			Retail Trade					
			General Merchandise					
			Department		Junior Department		Other General Merchandise	
			Main Floor	Total	Main Floor	Total	Main Floor	Total
22	small neighbourhood	hardware and lumber	-	-	-	-	-	-
23	small neighbourhood	food	-	-	-	-	-	-
24	small neighbourhood	appliance	-	-	-	-	-	-
25	small neighbourhood	food	-	-	-	-	-	-
26	strip	appliance and home furnishing	-	-	-	-	-	-
27	small neighbourhood	food	-	-	-	-	-	-
28	small neighbourhood	hardware and lumber	-	-	-	-	-	-
29	small neighbourhood	food	-	-	-	-	-	-
30	small neighbourhood	food	-	-	-	-	-	-
31	small community	junior department	-	-	1	1	-	-
32	small neighbourhood	non-central	-	-	-	-	-	-
33	small neighbourhood	food	-	-	-	-	-	-
34	strip	other service	-	-	-	-	-	-
35	strip	food	-	-	-	-	-	-
36	strip	food	-	-	-	-	-	-
37	small community	food	-	-	1	1	-	-
38	strip	food	-	-	-	-	-	-
39	strip	food	-	-	-	-	-	-
40	strip	finance	-	-	-	-	-	-
41	small neighbourhood	food	-	-	-	-	-	-
42	small neighbourhood	food	-	-	1	1	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Shopping Centre	Leading Tenant by	Function Types: Retail Trade: General Merchandise: Department: Main Floor	Department: Total	Junior Department: Main Floor	Junior Department: Total	Other General Merchandise: Main Floor	Other General Merchandise: Total
43	strip	hardware	-	-	-	-	-	-
44	small neighbourhood	food	-	-	-	-	-	-
45	strip	recreation	-	-	-	-	1	1
46	strip	food	-	-	-	-	-	-
47	small community	junior department	-	-	1	1	-	-
48	small neighbourhood	other retail	-	-	-	-	-	-
49	strip	apparel	-	-	-	-	-	-
50	small neighbourhood	food	-	-	-	-	-	-
51	small neighbourhood	food	-	-	-	-	-	-
52	small neighbourhood	food	-	-	-	-	-	-
53	small community	food	-	-	-	-	1	1
54	small neighbourhood	food	-	-	-	-	-	-
55	small neighbourhood	food	-	-	-	-	-	-
56	small neighbourhood	drug	-	-	-	-	-	-
57	small neighbourhood	food	-	-	-	-	-	-
58	small neighbourhood	food	-	-	-	-	-	-
59	strip	food	-	-	-	-	-	-
60	strip	automotive	-	-	-	-	-	-
61	strip	drug	-	-	-	-	-	-
62	small community	other general merchandise	-	-	-	-	1	1

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)											
	Retail Trade (continued)											
	Apparel		Food		Furniture & Appliance		Hardware & Lumber		Drug		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
1	30	30	5	5	1	1	1	1	1	1	16	16
2	14	14	2	2	2	2	-	-	1	1	7	7
3	8	8	2	2	1	1	-	-	1	1	7	7
4	-	-	1	1	1	1	-	-	1	1	4	4
5	-	-	1	1	-	-	-	-	1	1	-	-
6	4	4	4	4	1	1	-	-	1	1	2	2
7	1	2	1	1	-	-	-	-	1	1	2	2
8	4	4	2	2	-	-	-	-	-	-	3	3
9	3	3	3	3	-	-	-	-	1	1	2	2
10	2	2	1	1	-	-	1	1	1	1	1	1
11	2	2	2	2	1	1	-	-	1	1	1	1
12	3	3	1	1	-	-	-	-	1	1	1	1
13	1	1	1	1	-	-	-	-	1	1	-	-
14	-	-	2	2	-	-	-	-	1	1	-	-
15	2	2	2	2	-	-	-	-	1	1	-	-
16	-	-	2	2	-	-	-	-	-	-	-	-
17	-	-	1	1	-	-	-	-	-	-	1	1
18	-	-	1	1	-	-	1	1	1	1	2	2
19	2	2	-	-	-	-	-	-	-	-	-	-
20	1	1	1	1	-	-	1	1	1	1	1	1
21	-	-	1	1	-	-	-	-	-	-	1	1

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)											
	Retail Trade (continued)											
	Apparel		Food		Furniture & Appliance		Hardware & Lumber		Drug		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
22	-	-	-	-	1	1	1	1	-	-	-	-
23	-	-	1	1	-	-	-	-	1	1	-	-
24	1	1	-	-	1	1	-	-	-	-	2	2
25	1	1	1	1	-	-	-	-	1	1	-	-
26	1	1	1	1	1	1	-	-	-	-	-	-
27	-	-	1	1	-	-	-	-	-	-	-	-
28	1	1	-	-	-	-	1	1	1	1	-	-
29	-	-	2	2	-	-	-	-	-	1	1	-
30	-	-	2	2	-	-	-	-	-	-	-	-
31	-	-	1	1	-	-	-	-	-	-	-	-
32	-	-	1	1	-	-	-	-	-	-	-	-
33	-	-	1	1	-	-	-	-	-	-	1	1
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	1	1	1	1	-	-	-	-	-	-
36	1	1	1	1	1	1	1	1	-	-	-	-
37	2	2	1	1	-	-	-	-	-	-	1	1
38	-	-	1	1	-	-	1	1	-	-	1	1
39	-	-	-	-	-	-	-	-	-	-	-	-
40	1	1	1	1	-	-	-	-	-	-	-	-
41	-	-	1	1	-	-	1	1	1	1	-	-
42	-	-	1	1	-	-	-	-	-	-	1	1

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)											
	Retail Trade (continued)											
	Apparel		Food		Furniture & Appliance		Hardware & Lumber		Drug		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
43	-	-	1	1	1	1	1	1	-	-	-	-
44	-	-	2	2	-	-	-	-	1	1	1	1
45	-	-	-	-	-	-	-	-	-	-	1	1
46	-	-	2	2	-	-	-	-	-	-	-	-
47	-	-	1	1	-	-	-	-	-	-	1	1
48	1	1	1	1	-	-	-	-	-	-	-	-
49	1	1	1	1	1	1	-	-	-	-	-	-
50	-	-	1	1	-	-	-	-	1	1	-	-
51	1	1	1	1	-	-	-	-	-	-	-	-
52	-	-	2	2	-	-	-	-	-	-	-	-
53	-	-	1	1	-	-	-	-	1	1	-	-
54	-	-	1	1	-	-	-	-	-	-	1	1
55	-	-	1	1	-	-	-	-	-	-	-	-
56	-	-	1	1	1	1	-	-	-	-	1	1
57	-	-	1	1	-	-	-	-	-	-	1	1
58	-	-	1	1	-	-	-	-	-	-	-	-
59	-	-	1	1	-	-	-	-	-	-	-	-
60	-	-	1	1	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	1	1	-	-
62	-	-	1	1	-	-	-	-	-	-	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function types (continued)											
	Services											
	Eating and Drinking		Finance		Professional		Personal		Automotive		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
1	3	3	2	16	-	3	6	7	1	1	1	2
2	2	2	3	3	1	1	4	4	1	1	-	-
3	3	3	2	6	-	5	2	2	2	2	-	-
4	3	3	6	8	1	8	4	5	-	-	-	-
5	-	-	2	7	-	2	1	2	-	-	-	1
6	1	1	3	3	1	1	4	4	1	1	-	-
7	-	-	1	2	1	3	2	3	1	1	1	2
8	3	3	3	3	-	-	2	2	1	1	-	-
9	2	2	1	1	2	2	2	2	-	-	-	-
10	1	1	2	2	2	2	4	4	-	-	-	-
11	-	-	1	1	1	1	3	3	-	-	-	-
12	2	2	3	3	-	-	2	2	-	-	-	-
13	1	1	3	3	-	-	3	3	-	-	-	-
14	1	1	1	1	2	2	4	4	-	-	-	-
15	1	1	1	1	3	3	1	1	-	-	-	-
16	-	-	1	1	1	1	3	3	2	2	-	-
17	2	2	2	2	-	-	3	3	1	1	-	-
18	1	1	2	2	-	-	3	3	1	1	-	-
19	2	2	2	2	3	3	2	2	-	-	-	-
20	-	-	1	1	-	-	3	3	1	1	-	-
21	1	1	1	1	-	-	2	2	2	2	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function types (continued)											
	Services											
	Eating and Drinking		Finance		Professional		Personal		Automotive		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
22	-	-	-	-	1	1	2	2	1	1	-	-
23	1	1	2	2	3	3	-	-	1	1	1	1
24	1	1	2	2	1	1	-	-	-	-	-	-
25	1	1	2	2	1	1	2	2	-	-	1	1
26	1	1	1	1	-	-	3	3	-	-	-	-
27	1	1	-	2	-	2	3	3	-	-	-	3
28	-	-	2	2	-	-	2	2	-	-	-	-
29	-	-	1	1	-	-	3	3	-	-	-	-
30	-	-	-	-	1	1	1	1	1	1	-	-
31	-	-	1	1	-	-	1	1	1	1	-	-
32	1	1	3	3	2	2	-	-	-	-	-	-
33	1	1	1	1	-	-	2	2	-	-	-	-
34	1	1	2	2	-	-	4	4	-	-	1	1
35	-	-	2	2	1	1	3	3	1	1	-	-
36	-	-	1	1	1	1	1	1	-	-	-	-
37	-	-	1	1	-	-	1	1	-	-	-	-
38	1	1	1	1	-	-	1	1	-	-	-	-
39	1	1	2	2	-	-	3	3	-	-	-	-
40	-	-	-	-	1	1	1	1	-	-	-	-
41	1	1	-	-	-	-	1	1	-	-	-	-
42	-	-	2	2	-	-	1	1	-	-	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function types (continued)											
	Services											
	Eating and Drinking		Finance		Professional		Personal		Automotive		Other	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
43	-	-	1	1	1	1	2	2	-	-	-	-
44	-	-	-	-	-	-	1	1	-	-	-	-
45	1	1	1	1	-	-	2	2	-	-	-	-
46	-	-	-	-	-	-	3	3	-	-	-	-
47	-	-	4	4	-	-	2	2	-	-	-	-
48	-	-	-	-	-	-	1	1	-	-	1	1
49	1	1	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	1	1	-	-	-	-
51	-	-	1	1	1	1	1	1	-	-	-	-
52	-	-	1	1	-	-	1	1	-	-	-	-
53	-	-	1	1	-	-	1	1	-	-	2	2
54	-	-	-	-	-	-	2	2	-	-	-	-
55	-	-	-	-	-	-	2	2	-	-	-	-
56	-	-	-	-	-	-	1	1	-	-	-	-
57	-	-	1	1	-	-	-	-	-	-	-	-
58	-	-	1	1	-	-	-	-	1	1	-	-
59	1	1	-	-	1	1	-	-	-	-	-	-
60	-	-	-	-	-	-	1	1	1	1	-	-
61	1	1	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	1	1	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)								Number of Functions			
	Institutional		Recreational		Vacant		Non-Central		Berry's Classification		Study Classification	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
1	-	12	-	2	1	4	-	-	38	45	14	17
2	-	-	1	1	2	2	-	-	21	27	13	13
3	-	-	1	1	-	-	-	-	19	27	11	12
4	-	-	-	1	2	2	-	-	19	28	9	10
5	-	2	-	1	-	-	-	-	5	13	4	8
6	-	-	-	-	-	-	-	-	24	24	11	11
7	-	-	-	-	1	1	-	-	12	18	10	10
8	-	-	-	-	-	-	-	-	17	17	8	8
9	-	-	-	-	1	1	-	-	16	16	9	9
10	-	-	1	1	-	-	-	-	15	16	10	10
11	-	-	-	-	-	-	-	-	13	13	9	9
12	-	-	-	-	-	-	-	-	12	12	8	8
13	-	-	-	-	1	1	-	-	13	13	9	9
14	1	1	-	-	3	3	-	-	12	12	8	8
15	-	-	1	1	-	-	-	-	11	12	8	8
16	-	-	-	-	-	-	-	-	9	9	5	5
17	-	-	1	1	-	-	-	-	11	11	8	8
18	-	-	-	-	1	1	-	-	13	13	9	9
19	-	-	-	-	-	-	-	-	10	10	5	5
20	-	-	-	-	-	-	-	-	10	10	8	8
21	1	1	1	1	-	-	-	-	9	9	8	8

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)								Number of Functions			
	Institutional		Recreational		Vacant		Non-Central		Berry's Classification		Study Classification	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
22	2	2	-	-	2	2	-	-	88	88	7	7
23	-	-	-	-	-	-	-	-	10	10	7	7
24	-	-	-	-	2	2	-	-	9	9	7	7
25	-	-	-	-	-	-	-	-	10	10	8	8
26	-	-	1	1	-	-	-	-	9	9	7	7
27	-	-	-	-	-	1	-	-	5	11	3	7
28	-	-	-	-	1	1	-	-	8	8	6	6
29	-	-	-	-	-	-	-	-	7	7	4	4
30	-	-	-	-	2	2	-	-	7	7	5	5
31	-	-	-	-	-	-	-	-	5	5	5	5
32	1	1	-	-	1	1	1	1	8	8	6	6
33	-	-	-	-	1	1	-	-	7	7	6	6
34	-	-	-	-	1	1	-	-	9	9	5	5
35	-	-	-	-	-	-	-	-	8	8	6	6
36	-	-	-	-	-	-	-	-	7	7	7	7
37	-	-	-	-	-	-	-	-	7	7	6	6
38	-	-	-	-	-	-	-	-	6	6	6	6
39	-	-	-	-	-	-	-	-	6	6	3	3
40	1	1	-	-	1	1	-	-	6	6	6	6
41	-	-	-	-	-	-	-	-	5	5	5	5
42	-	-	-	-	-	-	-	-	5	6	5	5

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Function Types (continued)								Number of Functions			
	Institutional		Recreational		Vacant		Non-Central		Berry's Classification		Study Classification	
	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total	Main Floor	Total
43	-	—	-	-	-	-	-	-	7	7	5	6
44	-	-	-	-	-	-	-	-	5	5	4	5
45	-	-	1	1	1	1	-	-	8	8	7	7
46	-	-	-	-	-	-	-	-	5	5	2	2
47	-	-	-	-	-	-	-	-	8	8	5	5
48	-	-	1	1	1	1	-	-	6	6	6	6
49	-	-	-	-	1	1	-	-	5	5	5	5
50	-	-	-	-	1	1	-	-	4	4	4	4
51	-	-	-	-	-	-	1	1	7	7	7	7
52	-	-	-	-	-	-	-	-	4	4	3	3
53	-	-	-	-	-	-	-	-	7	7	6	6
54	-	-	-	-	-	-	-	-	4	4	3	3
55	-	-	-	-	-	-	-	-	3	3	2	2
56	-	-	-	-	-	-	-	-	4	4	4	4
57	-	-	-	-	-	-	-	-	3	3	3	3
58	-	-	-	-	-	-	-	-	3	3	3	3
59	-	-	-	-	-	-	-	-	3	3	3	3
60	-	-	-	-	-	-	-	-	3	3	3	3
61	-	-	-	-	-	-	-	-	2	2	2	2
62	-	-	-	-	-	-	-	-	2	2	2	2

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Number of Employees		Number of Customers Interviewed	Results of Customer Interviews						
				Distance Travelled			Mode of Transit by percentage			
	Main Floor	Total		Average (in centimeters on 1:25000 map)	"Cut-off" (in centimeters on 1:25000 map)	Percentage Included	Car	Bus	Foot	Taxi
1	1800	2000	154	12.36	31	98	75	16	3	6
2	923	923	228	9.27	40	100	86.6	5.1	8.8	-
3	852	919	176	7.73	30	99	72	13	15	-
4	159	109	156	3.45	10	91	51	12	37	-
5	42	84	130	1.90	9	100	73	6	21	-
6	363	363	147	3.67	11	99	57	15	25	3
7	120	225	82	6.76	31	100	79	6	15	-
8	425	425	85	11.93	25	97	95.5	4.5	-	-
9	112	122	75	6.69	31	98	58	3	37	2
10	86	95	78	2.68	13	97	70	6	24	-
11	171	171	33	5.72	16	97	78	2	18	2
12	282	282	40	9.07	31	93	83	4	9	4
13	344	344	69	8.25	25	97	88	5	6	1
14	61	61	42	4.61	15	95	60	-	36	4
15	94	99	83	3.38	10	100	83.8	8.7	7.5	-
16	73	73	43	1.50	4	100	No Data			
17	102	102	47	4.45	9	100	85	-	13	2
18	86	86	73	4.39	15	100	78	4	18	-
19	63	63	52	2.00	3	96	No Data			
20	93	93	54	4.89	16	96	No Data			
21	78	78	42	5.58	16	93	64	19	17	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Number of Employees		Number of Customers Interviewed	Results of Customer Interviews						
				Distance Travelled			Mode of Transit by percentage			
	Main Floor	Total		Average (in centimeters on 1:25000 map)	"Cut-off" (in centimeters on 1:25000 map)	Percentage Included	Car	Bus	Foot	Taxi
22	No Data		18	9.37	13	82	100	-	-	-
23	103	103	37	3.92	5	86	59	6	35	-
24	57	57	46	1.33	4	100	92	-	8	-
25	104	104	42	1.39	4	100	86	-	13	-
26	27	27	42	5.47	10	88	74.5	1.8	23.7	-
27	12	40	51	3.74	20	100	64	7	29	-
28	55	55	39	4.96	16	95	88	-	12	-
29	51	51	24	1.43	3	100	64	-	32	4
30	32	32	44	1.08	2	100	20	-	80	-
31	125	125	87	8.37	15	89	96	4	-	-
32	63	63	22	1.62	4	100	71.7	8.7	19.5	-
33	23	23	27	1.84	8	100	71	5	24	-
34	117	117	24	7.37	11	88	66	-	34	-
35	42	42	34	7.75	16	91	65	8	27	-
36	32	32	38	2.37	1	100	85	2.5	12.5	-
37	139	139	32	2.86	10	94	35	13	52	-
38	20	20	24	3.47	7	96	No Data			
39	21	21	29	1.69	2	93	43	3	54	-
40	24	24	30	2.14	8	97	49	3	48	-
41	38	38	36	7.30	15	94	79	6	15	-
42	212	212	60	10.68	9	93	60	20	20	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Number of Employees		Number of Customers Interviewed	Results of Customer Interviews						
				Distance Travelled			Mode of Transit by percentage			
	Main Floor	Total		Average (in centimeters on 1:25000 map)	"Cut-off" (in centimeters on 1:25000 map)	Percentage Included	Car	Bus	Foot	Taxi
43	24	24	30	2.62	6	100	40	3	57	-
44	29	29	31	2.61	11	100	31.4	8.6	60	-
45	123	123	29	6.92	20	100	No Data			
46	16	16	36	3.04	7	97	No Data			
47	273	273	22	6.22	16	95	No Data			
48	18	18	28	3.23	5	93	77	-	23	-
49	14	14	30	3.69	5	80	57	6	37	-
50	126	126	30	1.88	10	100	57	3	40	-
51	39	39	16	1.54	3	100	69	6	19	6
52	27	27	17	4.22	8	100	58	16	26	-
53	217	217	22	4.57	11	95	82	-	13	5
54	7	7	13	1.92	5	100	No Data			
55	5	5	6	1.27	4	100	No Data			
56	7	7	11	2.43	6	100	No Data			
57	14	14	24	.60	2	100	40	-	52	8
58	64	64	26	.74	2	100	44	-	36	20
59	8	8	25	.79	2	100	52	-	40	8
60	9	9	9	2.36	6	100	78	15	7	-
61	12	12	21	3.50	8	95	50	25	19	6
62	79	79	24	8.00	15	92	84	4	12	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Results of Customer Interviews (continued)					
	Trip Origin by percentage		Percentage from Out-of Town	Percentage visiting Stores on route	Sex by percentage	
	Home	Elsewhere			Male	Female
1	No	Data	8	17	47	53
2	78	22	9	39	46.9	53.1
3	No	Data	14	24	43	57
4	No	Data	2	18	29.5	70.5
5	61	39	-	No Data	46	54
6	No	Data	8	No Data	43	57
7	No	Data	-	19	35	65
8	86.4	13.6	15	28	62	38
9	No	Data	1	35	34	66
10	82	18	1	6	31	69
11	60	40	4	29	37	63
12	81	19	15	No Data	40	60
13	No	Data	7	29	38	62
14	76	24	-	28	28	72
15	No	Data	No	Data	24	76
16	No	Data	No	Data	No	Data
17	No	Data	-	2	No	Data
18	87	13	-	37	40	60
19	No	Data	No	Data	No	Data
20	No	Data	No	Data	No	Data
21	68	32	2	32	47	53

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Results of Customer Interviews (continued)					
	Trip Origin by percentage		Percentage from Out-of Town	Percentage visiting Stores on route	Sex by percentage	
	Home	Elsewhere			Male	Female
22	No	Data	-	21	68	32
23	79	21	6	64	44	56
24	No	Data	-	50	40	60
25	No	Data	-	25	36	64
26	84	16	-	16	68	32
27	77	23	-	15	49	51
28	73	27	4	35	56	44
29	No	Data	-	12	44	56
30	No	Data	-	28	54	46
31	No	Data	6	76	56	44
32	No	Data	-	15	67	33
33	No	Data	-	31	45	55
34	100	-	11	No Data	64	36
35	91	9	5	No Data	48	52
36	No	Data	-	20	35	65
37	No	Data	2	15	18	82
38	No	Data	No	Data	No	Data
39	83	17	-	31	23	77
40	83	17	-	29	20	80
41	No	Data	-	27	58	42
42	No	Data	-	34	51	49

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED PING CENTRES

Identification Number	Results of Customer Interviews (continued)					
	Trip Origin by percentage		Percentage from Out-of Town	Percentage visiting Stores on route	Sex by percentage	
	Home	Elsewhere			Male	Female
43	No	Data	-	34	43	57
44	No	Data	-	20	46	54
45	No	Data	No	Data	No	Data
46	No	Data	No	Data	No	Data
47	No	Data	No	Data	No	Data
48	No	Data	3	23	23	77
49	No	Data	-	30	43	57
50	No	Data	-	37	33	67
51	No	Data	-	6	16	84
52	53	47	-	32	29	71
53	73	27	-	9	52	48
54	No	Data	No	Data	No	Data
55	No	Data	No	Data	No	Data
56	No	Data	No	Data	No	Data
57	No	Date	-	No Data	44	56
58	No	Data	-	No Data	36	64
59	No	Data	-	No Data	28	72
60	No	Data	-	77	31	69
61	No	Data	-	12	25	75
62	84	16	4	24	60	40

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Results of Customer Interviews (continued)					
	Percentage of customers visiting number of stores					
	1	2	3	4	5	5+
1	1	8	8	13	14	56
2	5.5	11.8	12.6	23.2	11.8	35
3	30	22	16	12	8	12
4	45	26	16	4	5	4
5	46	48	3	3	-	-
6	36	18	40	6	-	-
7	62	27	9	1	-	-
8	26	49	20	2	3	-
9	34	40	16	3	1	5
10	56	26	8	-	-	-
11	67	11	13	6	3	-
12	25	23	25	2	15	15
13	20	41	13	13	7	5
14	59	33	8	-	-	-
15	30	39	21	5	4	1
16	No		Data			
17	57	38	3	-	-	-
18	42	11	7	-	-	-
19	No		Data			
20	No		Data			
21	73	25	2	-	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Results of Customer Interviews (continued) Percentage of customers visiting number of stores					
	1	2	3	4	5	5+
22	100	-	-	-	-	-
23	44	44	8	2	-	-
24	87	13	-	-	-	-
25	73	25	2	-	-	-
26	71	24	4	2	-	-
27	78	18	4	-	-	-
28	69	22	9	-	-	-
29	48	32	20	-	-	-
30	78	14	8	-	-	-
31	44	54	2	-	-	-
32	30	43	7	-	-	-
33	17	62	14	5	2	-
34	78	22	-	-	-	-
35	78	22	-	-	-	-
36	75	25	-	-	-	-
37	58	27	10	5	-	-
38	No		Data			
39	91	9	-	-	-	-
40	80	20	-	-	-	-
41	47	37	16	-	-	-
42	27	46	22	7	-	-

APPENDIX I (continued)

CHARACTERISTICS OF WINNIPEG'S PLANNED SHOPPING CENTRES

Identification Number	Results of Customer Interviews (continued					
	Percentage of customers visiting number of stores					
	1	2	3	4	5	5+
43	86	14	-	-	-	-
44	45.9	34	17.1	3	-	-
45	No		Data			
46	No		Data			
47	No		Data			
48	90	10	-	-	-	-
49	90	10	-	-	-	-
50	47	43	7	3	-	-
51	94	6	-	-	-	-
52	58	32	10	-	-	-
53	73	9	9	9	-	-
54	No		Data			
55	No		Data			
56	No		Data			
57	54	48	-	-	-	-
58	88	12	-	-	-	-
59	80	20	-	-	-	-
60	100	-	-	-	-	-
61	87.5	12.5	-	-	-	-
62	28	72	-	-	-	-

APPENDIX II

METROPOLITAN WINNIPEG AREA

POPULATION BY MUNICIPALITY

1901 - 1966 (by 5 year intervals)

MUNICIPALITY	1901	1911	1921	1931	1941
Assiniboia	357	681	1,024	1,675	1,968
Brooklands				2,628	2,240
Charleswood	450	701	869	1,226	1,934
East Kildonan	563	1,488	6,379	9,047	8,350
Fort Garry	730	1,133	2,451	3,926	4,453
North Kildonan				1,347	1,946
Old Kildonan				647	704
St. Boniface	2,019	7,483	12,821	16,305	18,157
St. James	257	5,335	11,745	14,260	13,892
St. Vital	585	1,540	3,771	10,402	11,993
Transcona			4,185	5,747	5,495
Tuxedo			1,062	1,173	735
West Kildonan	668	1,767	4,641	6,132	6,110
Winnipeg	42,340	136,035	179,087	218,785	221,960
TOTAL METRO WINNIPEG AREA	47,969	156,163	228,035	293,300	299,937
Manitoba	255,211	461,394	610,118	700,139	729,744
Rest of Manitoba (outside above mun.)	207,242	305,231	382,083	406,839	429,807
Metro as % of Manitoba	18.8	33.8	37.4	41.9	41.1
City of Winnipeg as a % of Metro	88.3	87.1	78.5	74.6	74.0

APPENDIX II (continued)

METROPOLITAN WINNIPEG AREA

POPULATION BY MUNICIPALITY

1901 - 1966 (by 5 year intervals)

MUNICIPALITY	1946	1951	1956	1961	1966
Assiniboia	2,160	2,663	3,577	6,088	19,389
Brooklands	2,728	2,915	3,941	4,369	*
Charleswood	2,688	3,680	4,982	6,243	7,373
East Kildonan	9,071	13,144	18,718	27,305	28,796
Fort Garry	5,200	8,193	13,592	17,528	21,177
North Kildonan	2,338	3,222	4,451	8,888	11,955
Old Kildonan	666	869	1,011	1,327	1,392
St. Boniface	21,613	26,342	28,851	37,600	43,214
St. James	14,903	19,561	26,502	33,977	39,866
St. Vital	14,674	18,637	23,672	27,269	29,528
Transcona	6,132	6,752	8,312	114,248	19,761
Tuxedo	677	1,627	1,163	1,627	2,480
West Kildonan	6,579	10,754	15,256	20,077	22,240
Winnipeg	229,045	235,045	255,093	265,429	257,005
TOTAL METRO WINNIPEG AREA	318,474	354,069	409,121	471,975	504,176
Manitoba	726,923	776,541	850,040	921,686	963,066
Rest of Manitoba (outside above mun.)	408,449	422,472	440,919	449,711	458,890
Metro as % of Manitoba	43.8	45.6	48.1	51.2	52.4
City of Winnipeg as a % of Metro	71.9	66.6	62.4	56.2	51.0

* Brooklands was amalgamated with St. James as of January 1967.

APPENDIX II (continued)

METROPOLITAN WINNIPEG AREA

POPULATION BY MUNICIPALITY

AS A PERCENTAGE OF TOTAL METRO AREA

1901 - 1966 (by 5 year intervals)

MUNICIPALITY	1901	1911	1921	1931	1941
Assiniboia	.74	.44	.45	.57	.66
Brooklands				.90	.75
Charleswood	.94	.45	.38	.42	.64
East Kildonan	1.17	.95	2.78	3.08	2.78
Fort Garry	1.52	.72	1.08	1.34	1.49
North Kildonan				.46	.65
Old Kildonan				.22	.23
St. Boniface	4.21	4.79	5.62	5.56	6.05
St. James	.54	3.42	5.15	4.86	4.63
St. Vital	1.22	.99	1.65	3.55	4.00
Transcona			1.84	1.96	1.83
Tuxedo			.47	.40	.25
West Kildonan	1.39	1.13	2.04	2.09	2.04
Winnipeg	88.30	87.11	78.54	74.59	74.00
TOTAL METRO AREA	100.00	100.00	100.00	100.00	100.00

APPENDIX II (continued)

METROPOLITAN WINNIPEG AREA

POPULATION BY MUNICIPALITY

AS A PERCENTAGE OF TOTAL METRO AREA

1901 - 1966 (by 5 year intervals)

MUNICIPALITY	1946	1951	1956	1961	1966
Assiniboia	.68	.75	.87	1.29	3.85
Brooklands	.86	.82	.96	.93	*
Charleswood	.84	1.04	1.22	1.32	1.46
East Kildonan	2.85	3.71	4.58	5.79	5.71
Fort Garry	1.63	2.31	3.32	3.71	4.20
North Kildonan	.73	.91	1.09	1.88	2.37
Old Kildonan	.21	.25	.25	.28	.28
St. Boniface	6.79	7 44	7.05	7.97	8.57
St. James	4.68	5.53	6.48	7.20	7.91
Transcona	1.93	1.91	2.03	3.02	3.92
Tuxedo	.21	.46	.28	.34	.49
West Kildonan	2.06	3.04	3.73	4.25	4.41
Winnipeg	71.92	66.57	62.35	56.24	50.98
TOTAL METRO AREA	100.00	100.00	100.00	100.00	100.00

* Brooklands was amalgamated with St. James as of January 1967.

APPENDIX II (continued)

METROPOLITAN WINNIPEG AREA

POPULATION CHANGE

1941 - 1966 (by 5 year intervals)

MUNICIPALITY	% CHANGE 1941-46	% CHANGE 1946-51	% CHANGE 1951-56	% CHANGE 1956-61	% CHANGE 1961-66
Assinoboia	9.8	23.3	34.3	70.2	218.5
Brooklands	21.8	6.9	35.2	10.9	-4.3
Charleswood	39.0	36.9	35.4	25.3	18.1
East Kildonan	8.6	44.9	42.4	45.9	5.5
Fort Garry	16.8	57.6	65.9	29.0	20.8
North Kildonan	20.7	37.8	38.1	99.9	34.5
Old Kildonan	-5.4	30.5	16.3	35.7	4.9
St. Boniface	19.0	21.9	9.5	30.3	14.9
St. James	7.3	31.3	35.5	28.2	5.0
St. Vital	22.4	27.0	27.0	15.2	8.3
Transcona	11.6	10.1	23.1	71.4	38.7
Tuxedo	67.9	140.3	-28.5	39.9	52.4
West Kildonan	7.7	63.5	41.9	31.6	10.8
Winnipeg	3.2	2.9	8.2	4.1	-3.2
Metro Winnipeg Area	6.2	11.2	15.5	15.4	6.8

APPENDIX III

The following is the instruction sheet given to the student interviewers. Completion of this exercise resulted in credit towards an Urban Geography course given by Dr. R. C. Tiwari at the University of Manitoba 1973:

Comparative Function and Market Area Analysis of Winnipeg's Planned Shopping Centres, Multifunctional Stores and Central Business District

The purpose of this exercise is to obtain information to further our understanding of two major components of Winnipeg's retail structure. More specifically, this study should enable a closer examination of the functions and market areas of Winnipeg's central business district, multifunctional stores and planned shopping centres. Your part in this work is to conduct a comparative study of the functions and market areas of

_____

_____

The steps in examining the retail activity on your C.B.D. block are as follows:

1) Draw a plan view of the block at the scale of 1" to 50' showing the dimensions of each store, office, etc. (frontage, measured in feet, and floor area). If there is a multifunctional store such as Kresge's or The Bay on your block, show each department with its dimensions, including floor area.

2) Name and classify each store (or department, in the case of multifunctional stores) using the designations shown on the accompanying sheet.

3) Determine if your C.B.D. block should be included in the downtown area according to the Murphy and Vance method of C.B.D. delimitation.

4) Using the enclosed interview schedules, conduct a market area analysis of your block. Interview at least 25 shoppers who have visited

stores on your block. Once the interviews have been conducted, plot the origin of the interviewee's shopping trip on a standard Winnipeg map sheet (1 : 25,000).

The procedure to be taken in examining the retail activity of multi-functional stores or shopping centres are as follows:

1) Draw a plan view of each shopping centre or multifunctional store (scale 1" : 50') by floor, indicating the dimensions of each store and/or department and the adjacent parking lot, if there is one present.

2) List each store in the shopping centre with its frontage, measured accurately in feet, its floor area and the number of people employed there. In the case of the multifunctional store, measure the dimensions and floor area of each department (not including storage space) as accurately as possible. Determine also the number of employees for each multifunctional store (full-time and part-time).

3) Classify each store in the shopping centre(s) you are examining (or department, in the case of the multifunctional store) using the categories on the accompanying sheet.

4) Using the enclosed interview schedules, conduct a market area analysis. Interview at least 25 people at each shopping centre or conduct 6 interviews for The Bay, Eaton's or Simpson-Sears.

5) Once the interviews have been conducted, plot the origin of each interviewee on a 1 : 25,000 scale map sheet.

On the basis of your interviews and observations at each shopping centre or multifunctional store and on your C.B.D. block, discuss comparatively their functions, unit (store or department) sizes and the area served (market area size, shape and socio-economic characteristics).

APPENDIX IV

The field interviewers classified stores in the selected planned shopping centres according to the following typology:

53,346 Urban Geography

BLOCK NO. _____ C.B.D. Analysis

Winnipeg

central: c Non-central: x	CODE	FUNCTION	UNITS
c.	IA	Retail Trade Use	
c.	IA1a	Supermarket	
c.	IA1b	Grocers	
c.	IA1o	Meatmarkets	
c.	IA1d	Delicatessen	
c.	IA1e	Bakery	
c.	IA2a	Department Store	
c.	IA2b	Drygoods & Gen. Merchants	
c.	IA2o	Variety Stores (5 & 10)	
c.	IA3a	Shoe Store	
c.	IA3b	Men's Clothing	
c.	IA3c	Family Clothing	
c.	IA3d	Women's Clothing	
c.	IA3e	Fur Shops	
c.	IA3f	Children's Shoes	
c.	IA4a	Furniture	
c.	IA4b	Appliance	
c.	IA4c	Home Furnishing	

Central: c Non-central: x	CODE	FUNCTION	UNITS
c.	IA5a	New and used Autos	
c.	IA5b	Tire, battery, etc.	
c.	IA5c	Motorcycle, boats	
c.	IA5d	House Trailer	
x.	IA6a	Lumber yards	
c.	IA6b	Hardware	
c.	IA7a	Drugstore	
c.	IA8a	Liquor store	
c.	IA8b	Fuel dealers	
c.	IA8c	Garden store	
c.	IA8d	Jewelry store	
c.	IA8e	Book store	
c.	IA8f	Pawn store	
c.	IA8g	Stationery store	
c.	IA8h	Sporting goods	
c.	IA8i	Bicycle store	
c.	IA8j	Florist	
c.	IA8k	Tobacco	
c.	IA8l	Newsstand	
cc.	IA8m	Gift and souvenir	
c.	IA8n	Music stores	
c.	IA8o	Photographic Supply	
c.	IA8p	Optical goods	
c.	IA8q	Office furniture	
c.	IA8r	Secondhand stores	
c.	IA8s	Antique shops	
c.	IA8t	Luggage and Leather goods	
c.	IA8u	Other retail store	

APPENDIX IV (continued)

Central: c Non-central: x	CODE	FUNCTION	UNITS
c.	IB1a	Men's Barber	
c.	IB1b	Women's Hairdressing	
c.	IB1c	Beauty salon	
c.	IB2a	Funeral Service	
c.	IB3a	Restaurant	
c.	IB3b	Bars and Public Houses	
c.	IB4a	Photographic Studio	
c.	IB4b	Shoe repair shop	
c.	IB4c	Drycleaners	
c.	IB4d	Fur storage	
c.	IB4e	Costume, dress suit rental	
c.	IB4f	Coin operated service machine	
c.	IB4g	Turkish bath, sauna, etc.	
c.	IB4h	Other personal service	
c.	IB5a	Interior decorating service	
c.	IB5b	General auto repairs	
c.	IB5c	Carwash	
c.	IB5d	Watch and Clock repairs	
c.	IB5e	Furniture repairs	
c.	IB5f	Electrical repairs	
c.	IB5g	Lawnmower repair	
c.	IB5h	Typewriter repair shops	
c.	IB5i	Other repair shops	
c.	IC1a	Movie picture theaters	
x.	IC1b	Drive-in	

APPENDIX IV (continued)

Central: c Non-central x	CODE	FUNCTION	UNITS
c.	IC1c	Theaters	
c.	IC1d	Concert hall	
c.	IC1e	Billiard and pool hall	
c.	IC1f	Bowling alleys	
c.	IC1g	Skating rink	
c.	IC1h	Swimming pool	
c.	IC1i	Dance Halls and Dance schools	
c.	IC1j	Amusement park	
c.	IC1k	Shooting Galleries	
c.	IC1l	Other recreation centres	
c.	ID1a	Hotels	
c.	ID1b	Motels	
x.	ID1c	Rooming house	
c.	IE1a	Gas stations	
c.	2A1a	Banks	
c.	2A1b	Finance Co.	
c.	2A1c	Credit Unions	
c.	2B2a	Accountant	
c.	2B2b	Advertising	
c.	2B2c	Employment Agency	
c.	2B2d	Detective Agency	
c.	2B2e	Window display	
c.	2B2f	Photocopying	
c.	2B2g	Stenographic	
c.	2B2h	Any other	

APPENDIX IV (continued)

Central: c Non-central: x	CODE	FUNCTION	UNITS
c.	2C3a	Doctors	
c.	2C3b	Dentist	
c.	2C3c	Vet	
c.	2C3d	Optician	
c.	2C3e	Lawyers and Solicitors	
c.	2C3f	Consultant engineers	
c.	2C3g	Architects	
c.	2C3h	Marketing	
c.	2C3i	Planning consultants	
c.	2C3j	Laboratory Analysis	
c.	2C3k	Any other	
c.	2D4a	Business Schools	
c.	2D4b	Language School	
c.	2D4c	Driving School	
c.	2D4d	Sports School	
c.	2E1a	Wholesale agents, no store on premises	
c.	2E1b	Manufacturer's sales office	
c.	2F1a	Office of mail order houses	
c.	2F2b	Office of merchandise vending	
c.	2F2c	Any others	
c.	3A1a	Commercial parking lot	
c.	3A1b	Commercial parking garage	
c.	3A1c	Public parking lots with meters	
c.	3A1d	Public parking lots without meters	
c.	3A1e	Private parking lot	

APPENDIX IV (continued)

Central: c Non-central: x	CODE	FUNCTION	UNITS
x.	4Ala	Public buildings	
x.	4Alb	Parks and open space	
x.	4Bla	Private Institutions - Schools	
x.	4Blb	Hospitals	
x.	4Blc	Churches	
x.	4Bld	Welfare	
x.	4Ble	Union offices	
x.	4Blf	Other religious offices	
c.	4Cla	Railroad terminals	
c.	4Clb	Bus depots	
	5A	Wholesale-type (stock on premises)	
x.	5Ala	Merchant wholesalers	
x.	5Alb	Manufacturer's sales branches	
x.	5Alc	Petroleum Bulk Station	
x.	5Ald	Assemblers of farm product	
x.	5Ale	Warehousing and trucking	
	6A	Industrial type use	
x.	6Ala	Manufacturing	
x.	6Alb	Processing	
x.	6Alc	Construction	
x.	6Ald	Railroad shops	
x.	6Ale	Depots and storage	
x.	6Alf	Not classified above	
	7A	Residential use	
x.	7Ala	Single family or duplex	
x.	7Alb	Apartments	

APPENDIX IV (continued)

Central: c Non-central: x	CODE	FUNCTION	UNITS
x.	8Ala	Vacant lot	
x.	8Alb	Vacant building space	
	9Ala	Under construction	

APPENDIX V

This is the schedule used for customer interviews at the selected planned shopping centres:

Function and Market Area Analysis of Winnipeg's Planned Shopping Centres and Multifunctional Stores

Questionnaire

Date of Interview: _____

Name and/or location of shopping centre or multifunctional store:

_____

Ask each interviewee having visited your shopping centre or multifunctional store:

1) How many different shops or departments have you visited at this shopping centre (or store) on this trip? _____

2) How did you get here? 1. by bus _____
2. private car _____
3. taxi _____
4. on foot _____

3) Indicate the sex of the interviewee. - male _____
- female _____

4) What is the closest intersection to the point of origin of your trip? (e.g. Portage and Arlington _____ and _____
Is this your home address? yes ___ no ___ May we interview you further as to your preference in choice of places to shop? yes ___ no ___ (if yes) What is your home address? _____

5) Did you visit other shopping centres or stores before coming here? yes ___ no ___ How many? _____

APPENDIX V (continued)

Which stores or shopping centres did you visit before coming to this one? (specify stores or departments visited and location)

1. _____

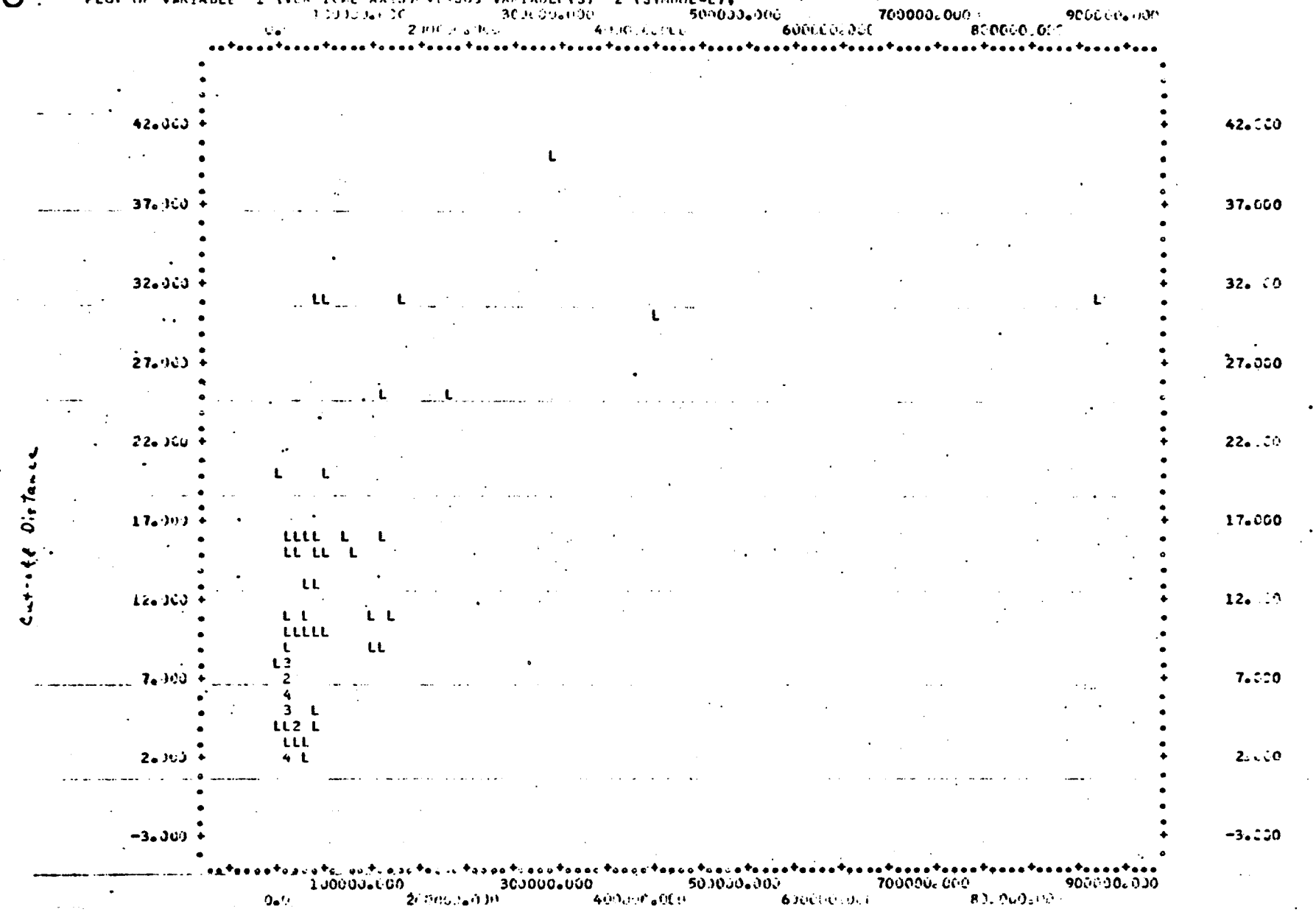
2. _____

3. _____

4. _____

0014 BMD05D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
HEALTH SCIENCES COMPUTING FACILITY, UCLA

CUT-OFF DISTANCE VS IND VAR #7(L).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=L).



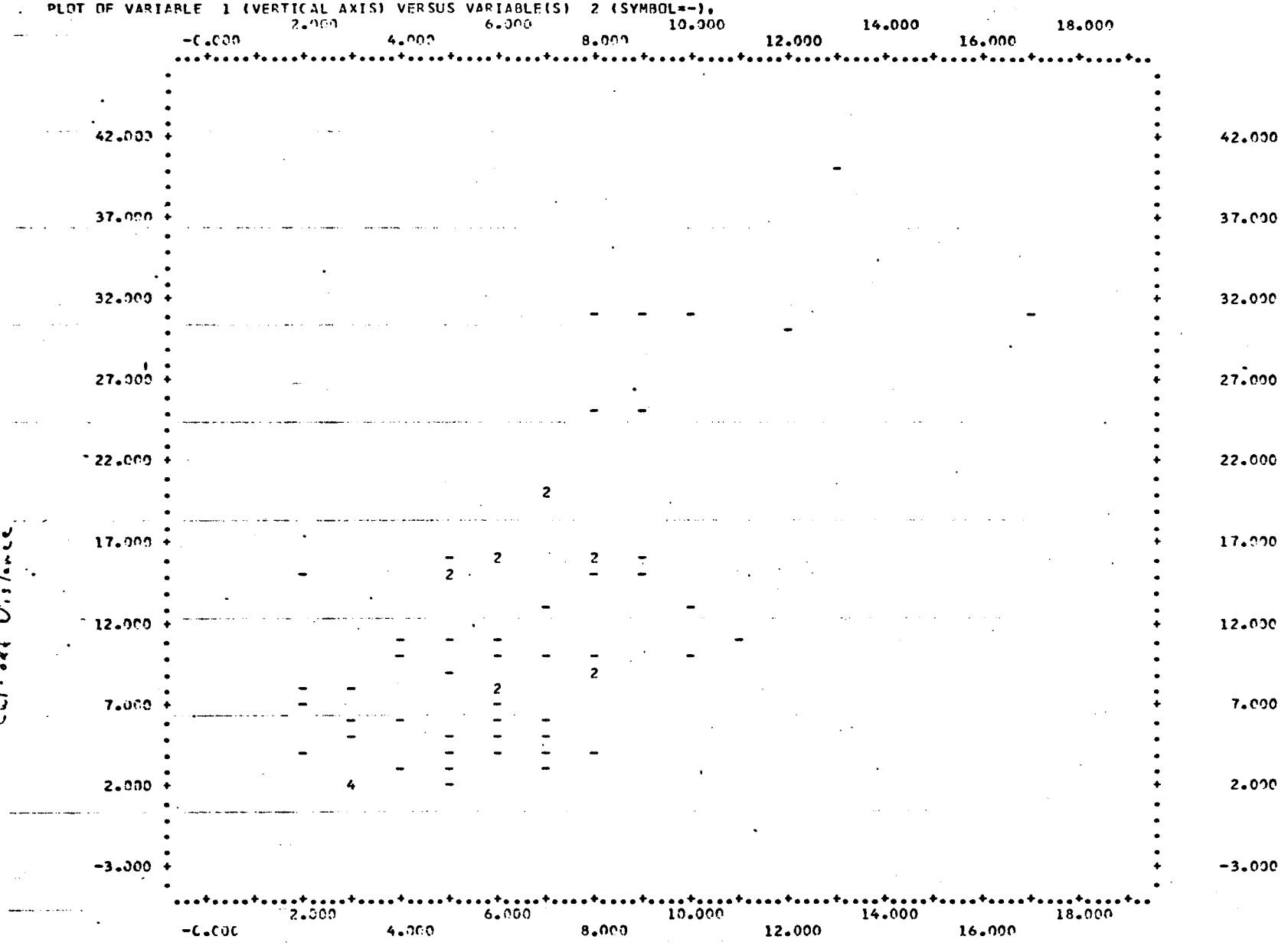
IHC901I EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

IHC217I FICCS - END OF DATA SET ON UNIT 5

Total Main Floor Area

BMD05D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
HEALTH SCIENCES COMPUTING FACILITY, UCLA

CUT-OFF DISTANCE VS IND VAR #4(-).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=-),



IHC900I EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

IHC217I FICCS - END OF DATA SET ON UNIT 5

Total Functions

4U3C BMD05D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
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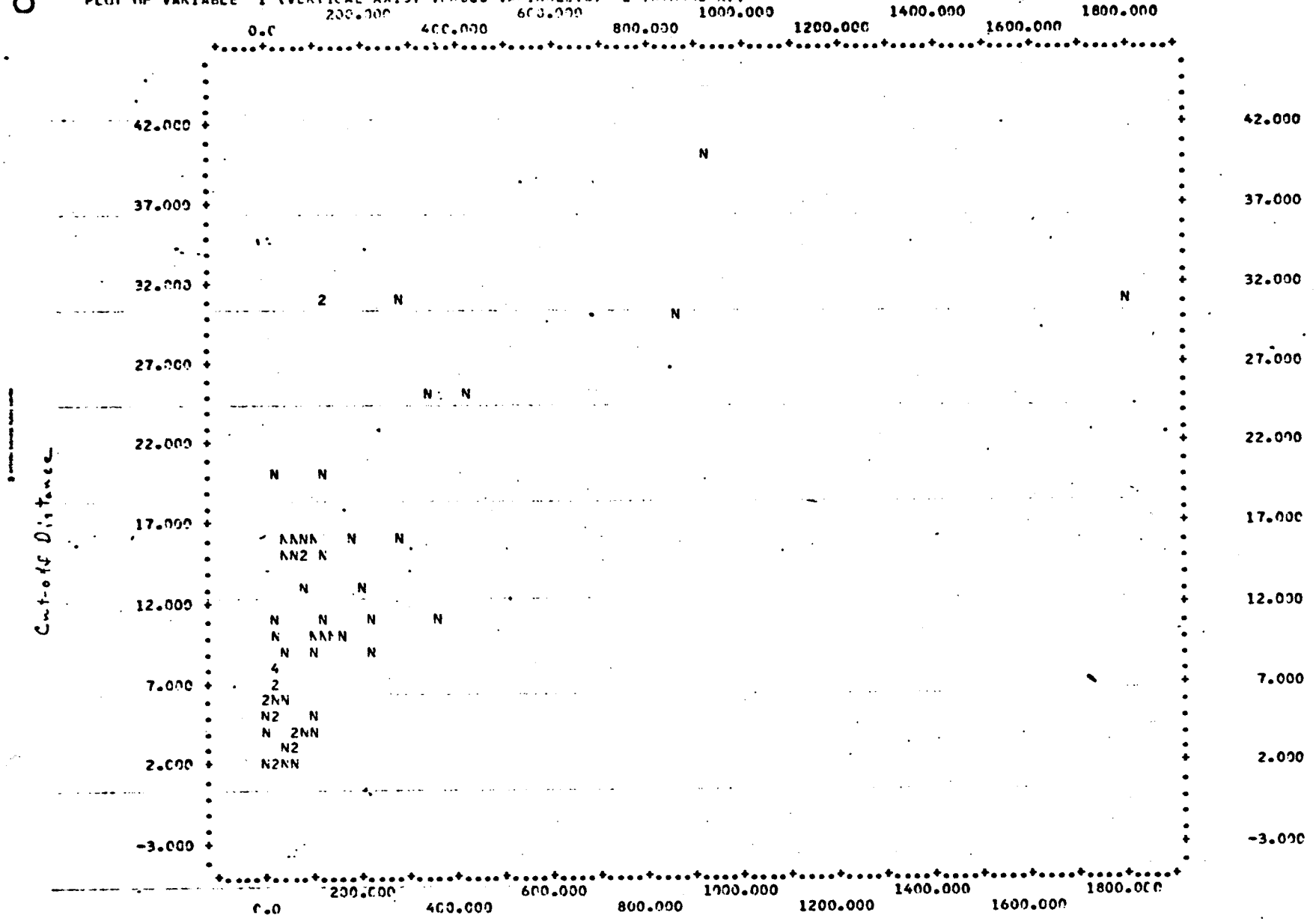
CUT-OFF DISTANCE VS IND VAR #9(N).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=N).



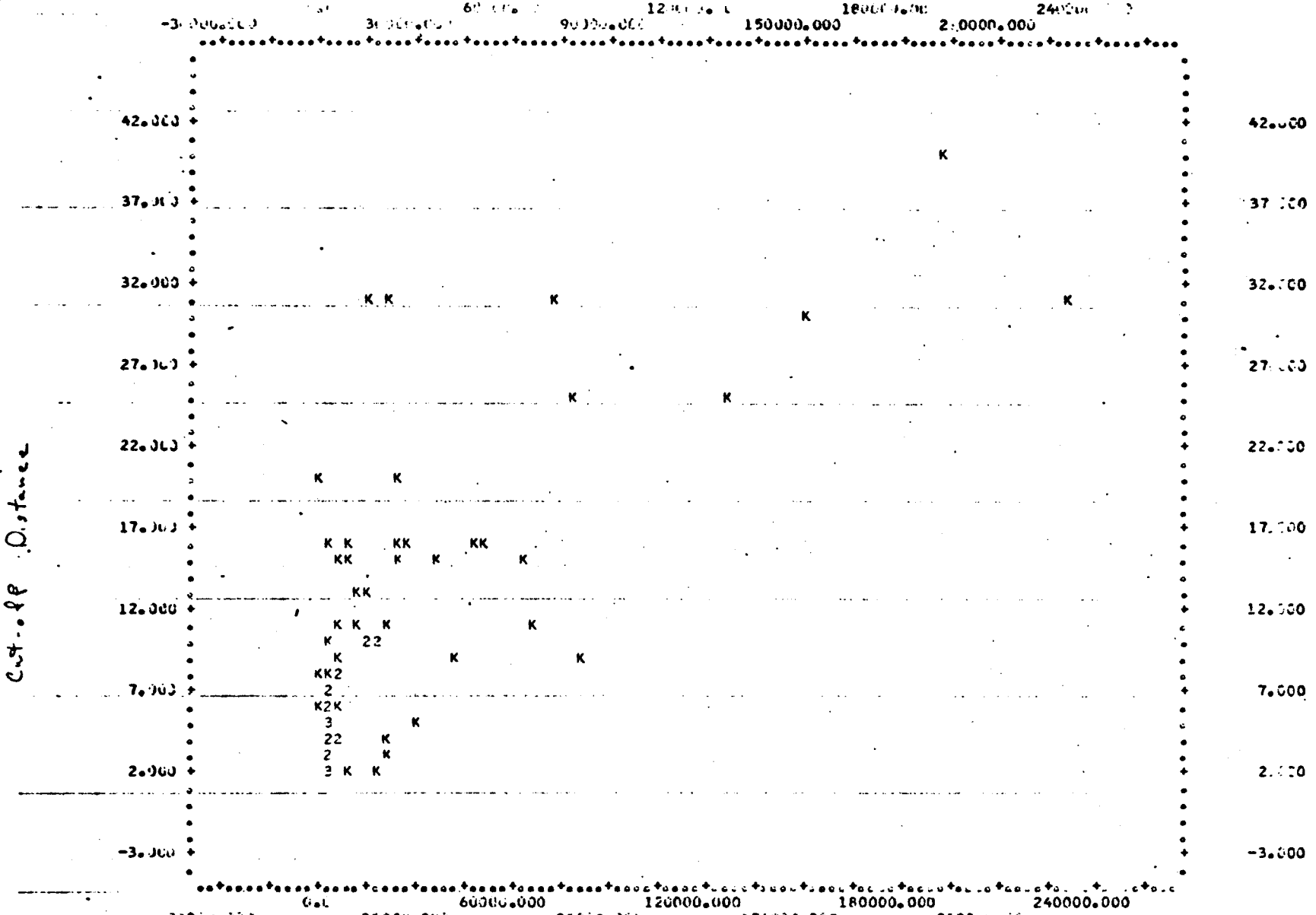
IHC9CJI EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

IHC217I FIOCS - END OF DATA SET ON UNIT 5

Main Floor Employees

BMD15D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
HEALTH SCIENCES COMPUTING FACILITY, UCLA

CUT-OFF DISTANCE VS IND VAR #6(K).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=K).



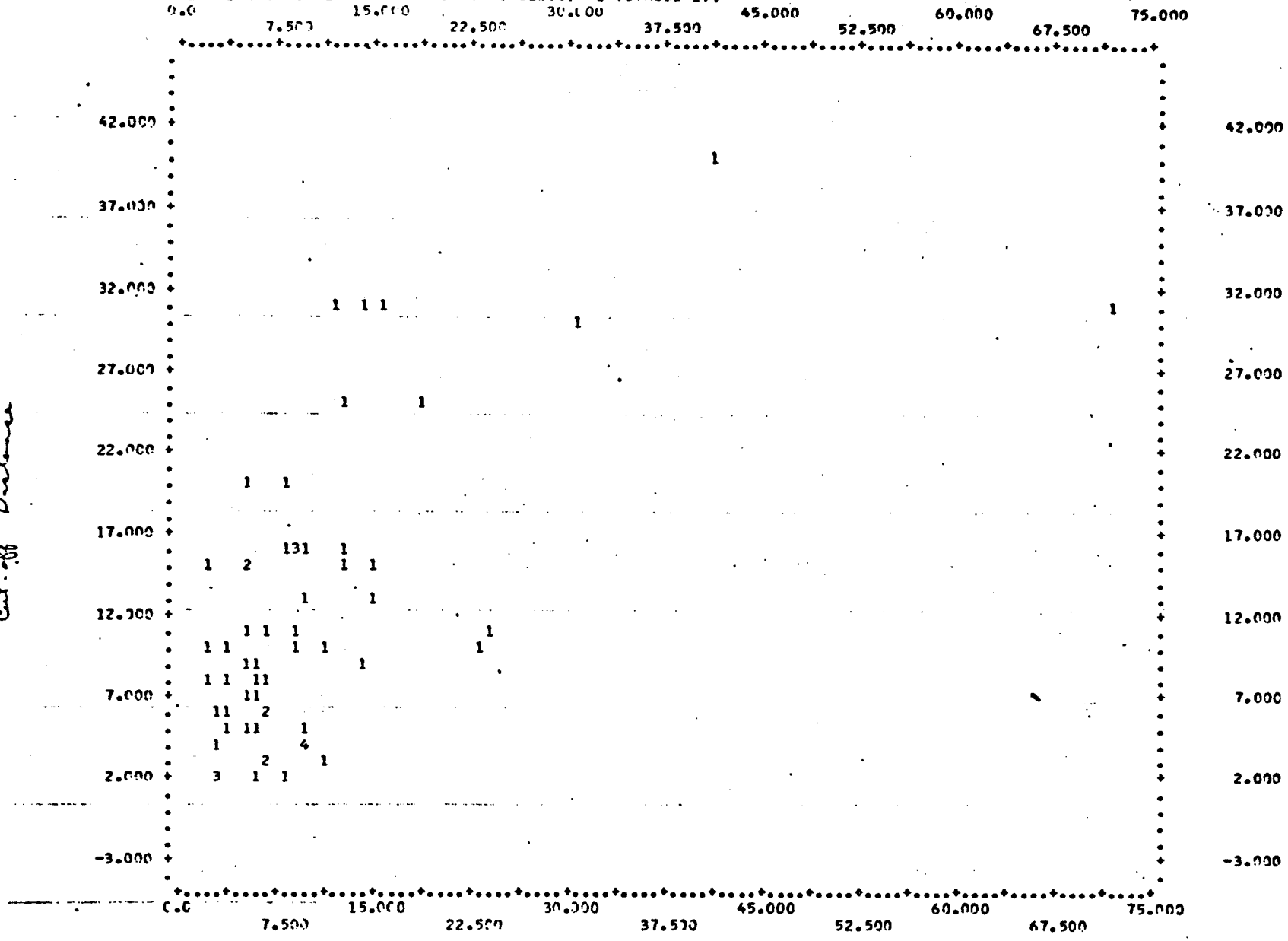
IHC901 EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

END IHC217I FICCS - END OF DATA SET ON UNIT 5

Floor Area of largest tenant

3004 BMD05D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
HEALTH SCIENCES COMPUTING FACILITY, UCLA

CUT-OFF DISTANCE VS IND VAR #1(1).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=1).

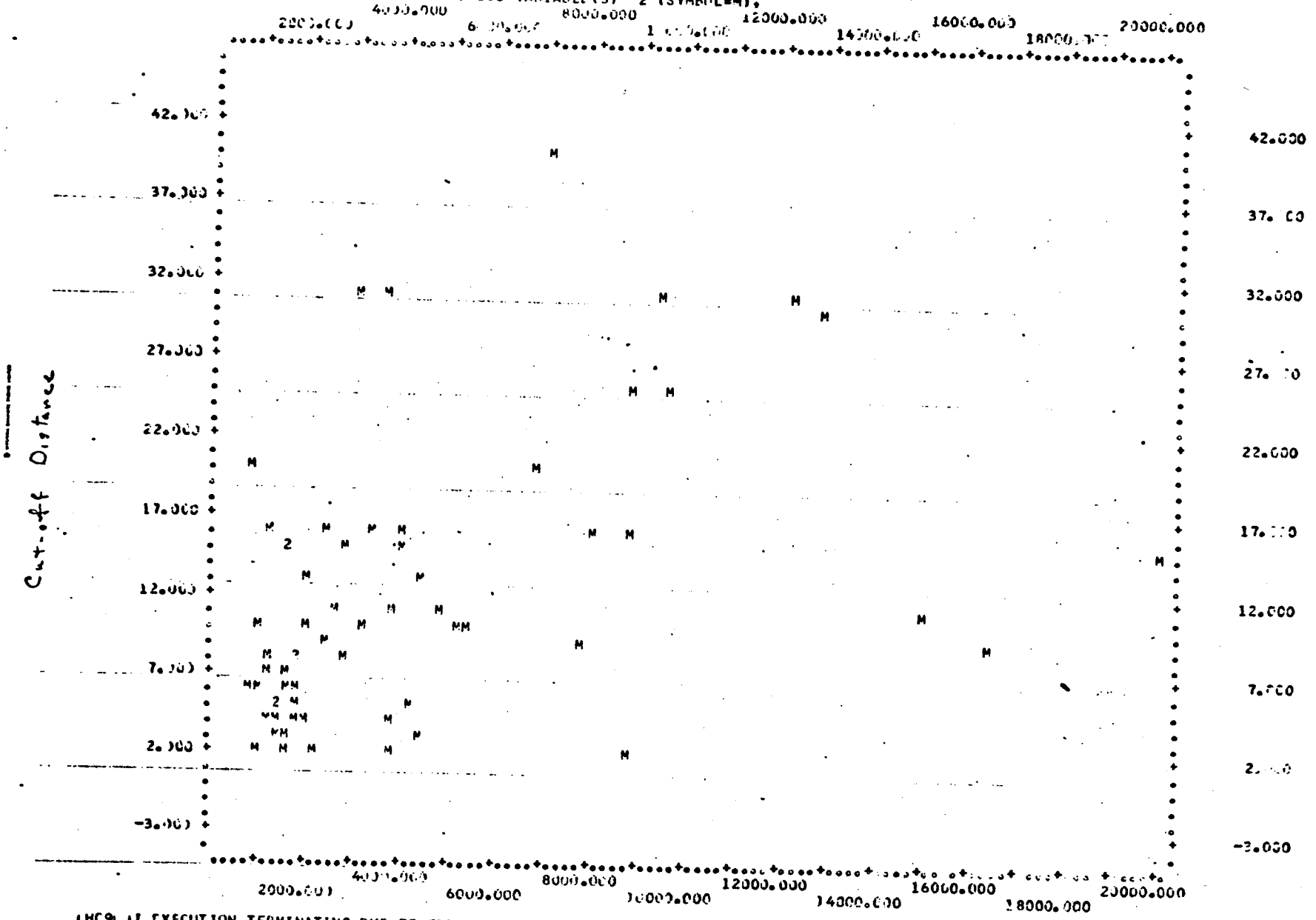


IHC900I EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

IHC217I FIOCS - END OF DATA SET ON UNIT 5

0001 BMD05D GENERAL PLOT - INCLUDING HISTOGRAM - REVISED JULY 28, 1969
HEALTH SCIENCES COMPUTING FACILITY, UCLA

CUT-OFF DISTANCE VS IND VAR #8(M).
PLOT OF VARIABLE 1 (VERTICAL AXIS) VERSUS VARIABLE(S) 2 (SYMBOL=M).



IHC90I EXECUTION TERMINATING DUE TO ERROR COUNT FOR ERROR NUMBER 217

IHC217I FICCS - END OF DATA SET ON UNIT 5