

THE ST. NORBERT RIVER CORRIDORS
AN EXAMINATION OF PLACE

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5172948

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MASTER OF LANDSCAPE ARCHITECTURE

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THE ST. NORBERT RIVER CORRIDORS

AN EXAMINATION OF PLACE

BY

RONALD WILLIAM LAUSMAN

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

MASTER OF LANDSCAPE ARCHITECTURE

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ABSTRACT

River corridors are important natural environments which contain many historical, cultural, and landscape features. They are also important visual resources which provide natural beauty to the city and town environments through which they flow. As diverse natural settings river corridors are often subject to indiscriminate use and inappropriate development while important resources are unprotected and inaccessible.

This study explores the river corridors adjacent to the community of St. Norbert in depth, examining its history, culture, landscape resources and current conditions to respond to issues of river corridor development and resource protection. The development strategy aims at balancing the use of river corridors with the extent of resources, within a recreational framework. The proposed recreational strategy identifies a system of nodal developments that respond to resource concentrations, providing mechanisms for enhancement and interpretation. The nodal developments are linked through a system of pedestrian path connections which are enhanced by interpretive programs and event programming.

ACKNOWLEDGEMENTS

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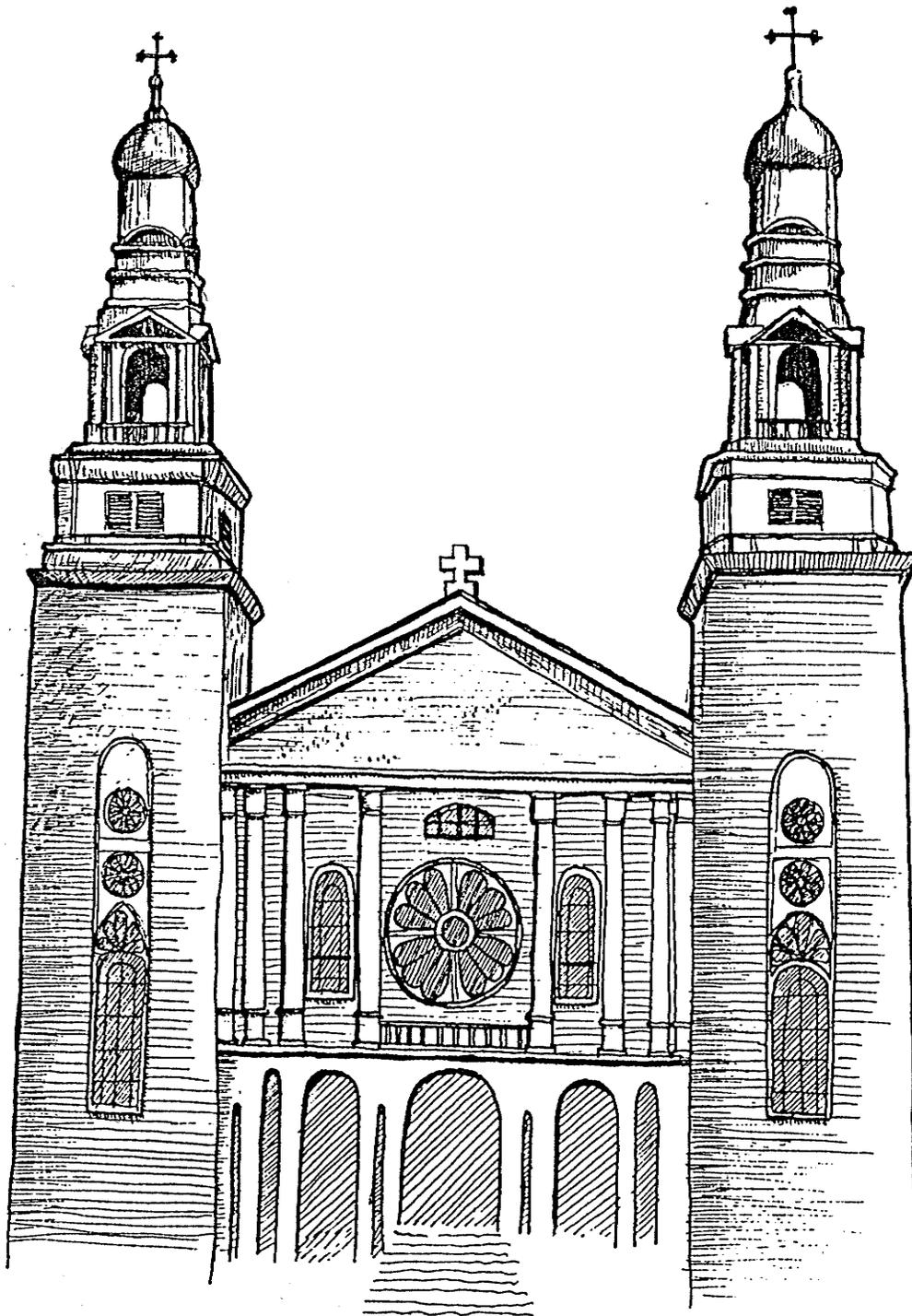
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THE ST. NORBERT RIVER CORRIDORS AN EXAMINATION OF PLACE



INTRODUCTION

FOREWARD

River systems are one of the most significant agents responsible for the configuration of the natural landscape. Their capacity to mold the surface over which they flow, has formed many of the landscapes that characterize the various regions of Canada. There is little doubt as to the importance of these water bodies, or the natural beauty that they provide to the landscape through which they flow.

Historically river corridors have, and continue to be underutilized resources in town and city environments. There have recently, been a number of agencies and interest groups who have started to recognize the value of waterways and have taken steps to preserve and develop them as recreational resources. Despite these positive attempts, much of our waterways remain inaccessible, indiscriminately used and unprotected, while containing significant wildlife habitat, physical features and important natural and heritage resources.

Ideally, river corridors are developed for recreational use responding to a need to provide leisure time activity areas, while protecting the important resources contained within them. This balance of use and resource, involves the notion of fit where development responds to the nature and extent of the particular resources.

PROJECT DEFINITION

The Red and La Salle River corridors adjacent to the community of St. Norbert represent a unique and highly significant landscape setting. This landscape, as defined by these water bodies, contains important historic, cultural and natural heritage resources. Currently, many of these resources are inaccessible, deteriorating, unprotected, indiscriminately utilized and subject to inappropriate development.

The intent of this study is to address the present conditions of the river corridors providing a conceptual development strategy that recognizes the positive qualities and recreational potential of the St. Norbert river corridors and adjacent lands. The strategy will endeavor to enhance, preserve and link the resources of the river corridors within a recreational framework. The strategy is further intended as a means of exploring possibilities and the potential of developing a diverse recreational amenity within a river corridor setting.

This study will address a number of issues which relate to the character and qualities of the St. Norbert River Corridors and the development of a conceptual development strategy.

STUDY OBJECTIVES

1. To develop an appreciation and understanding of the unique natural, historic and cultural resources associated with the St. Norbert river corridors.
2. To develop and improve recreational opportunities within these river corridors.
3. Develop opportunities for learning about and experiencing the natural, historic and cultural resources within these river corridors.
4. Develop guidelines to conserve, protect and facilitate appropriate use and enjoyment of resources within this fluvial setting.
5. Provide a means to facilitate access to these river corridor resources.

STUDY SCOPE

- . This practicum shall consider the use and the recreational development potential associated with the St. Norbert River corridors lands based upon an analysis of the cultural, historic, recreational, and landscape components of the study area.
- . This practicum will formulate a development strategy and recommendations for the recreational development and interpretation of the river corridors.
- . This study is intended to provide an exploration of possibilities for recreational development within a river setting.

PROCESS

1. BACKGROUND ANALYSIS

- A. The natural history of the landscape will be explored to examine potentials and limitations for interpretative development .
- B. The native use and impact upon this landscape will be examined to determine their influence on site resources and present possible themes upon which recreational designations may be built.
- C. The settlement patterns and subsequent development of St. Norbert will be examined to identify interrelationships of significant areas within this landscape setting.
- D. The historic and cultural components of the site will be explored to identify relevant events for interpretation.

2 RESOURCE INVENTORY

- A. Inventory the landscape, historic, cultural, and recreational resources within and adjacent to the river corridors to assess the level of service and extent of existing opportunity.
- B. Examine site conditions relevant to a recreational development strategy.

3 RESOURCE ANALYSIS

- A. Examine the distribution of all site resources within the river corridor lands to identify areas of concentration, and potential development sites.
- B. Assess site resources to determine relative significance and establish potential development themes.
- C. Develop conceptual themes relating to site resources and development potential.

4 THE CONCEPTUAL DEVELOPMENT STRATEGY

- A. Illustrate a recreational development strategy for the river corridors and adjacent lands.
- B. Illustrate recommendations for the recreational development of the corridors and the preservation of its resources.

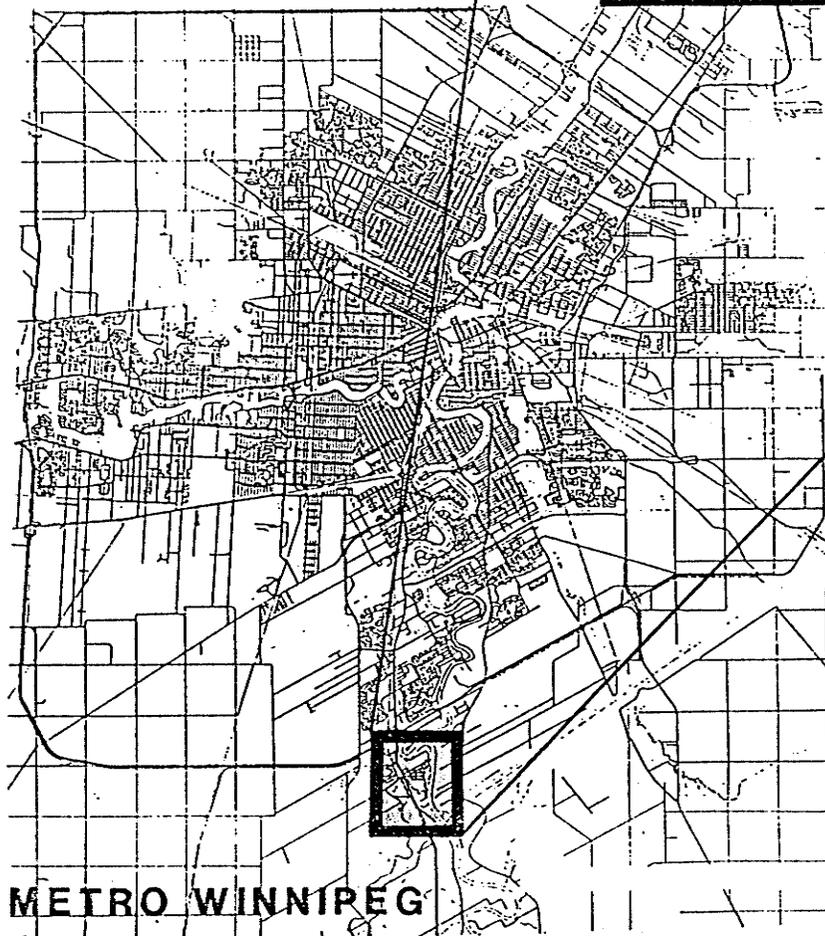
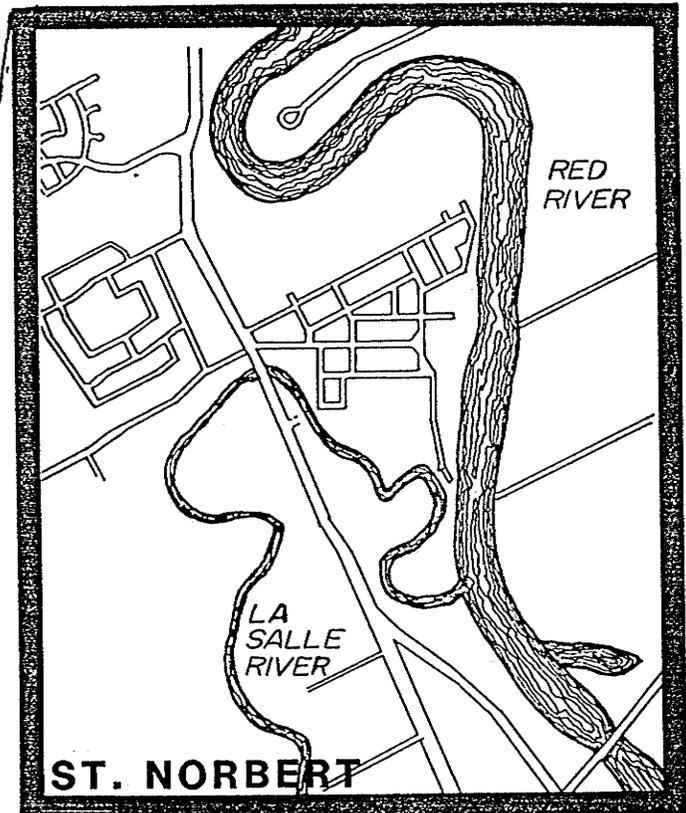
PROJECT AREA

The project area as defined by this River Corridor study will include a portion of the Red and La Salle River channels, and their associated lands. The boundaries of this study study will conform to the area defined by the perimeter highway and the floodway. The focus of the study will correspond to the portion of the river corridor which defines the boundaries of the community of St.Norbert and the immediate context..

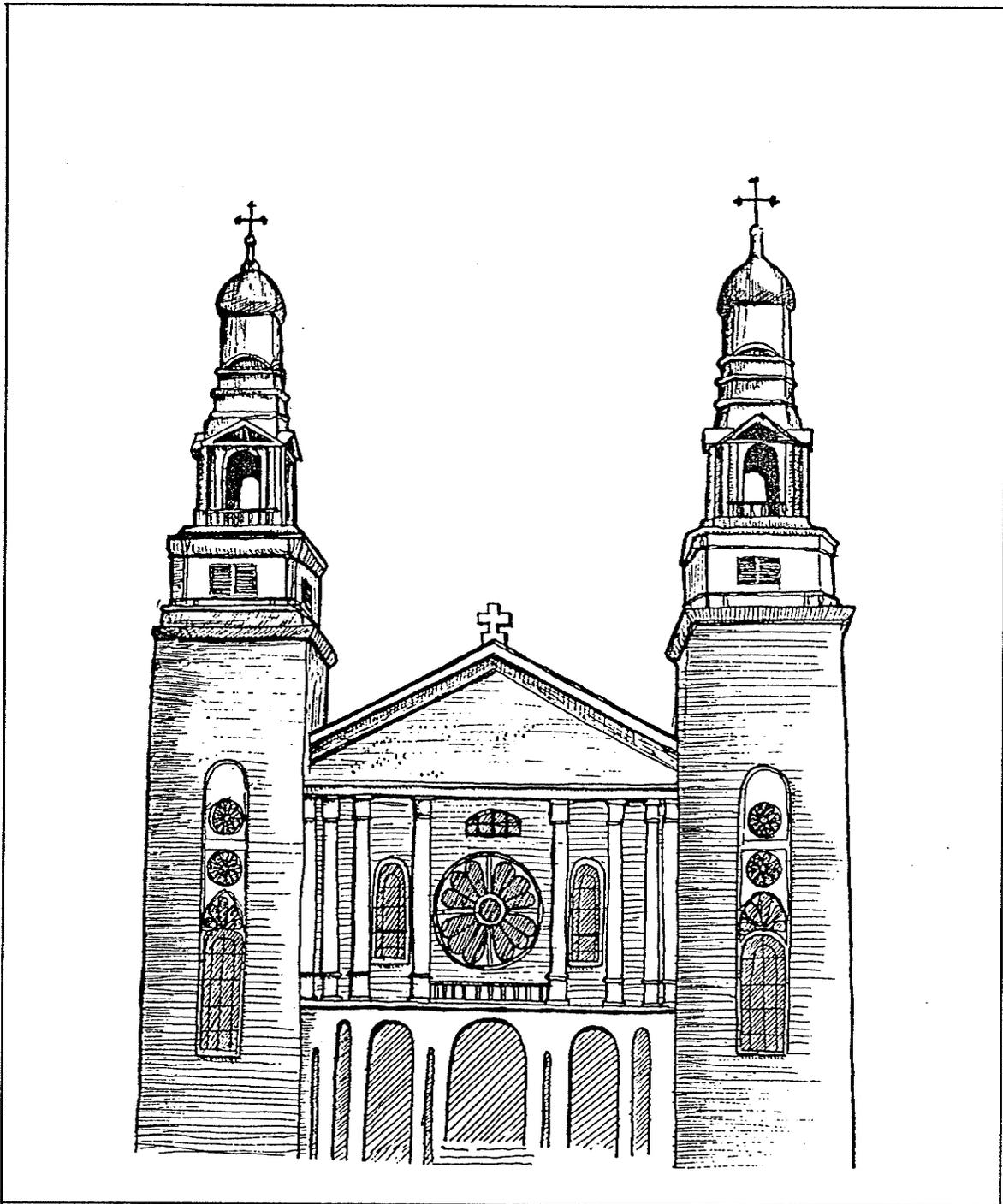
INTRODUCTION

The landscape setting defined by the St. Norbert river corridors is a highly complex environment layered with natural, historical and cultural patterns and relationships. Without an analysis of the locality, its natural environment and its social and cultural history, the understanding of the landscape remains elusive. The individual parts form cues to an integrated image of the landscape, and an awareness of their role is essential in defining the local identity. The building blocks of the St. Norbert landscape will be explored individually to provide a selective array of data in which an appreciation of place may be extracted. The physical evolution of the region will be explored, to depict the environmental processes that have lead to the formation of this dynamic natural landscape. The overriding human influences on the landscape will also be explored, from the prehistoric aboriginal peoples to the european settlers. The actions of man that transformed the prairie into the cultural landscape which is now collectively known as St. Norbert.

SITE CONTEXT

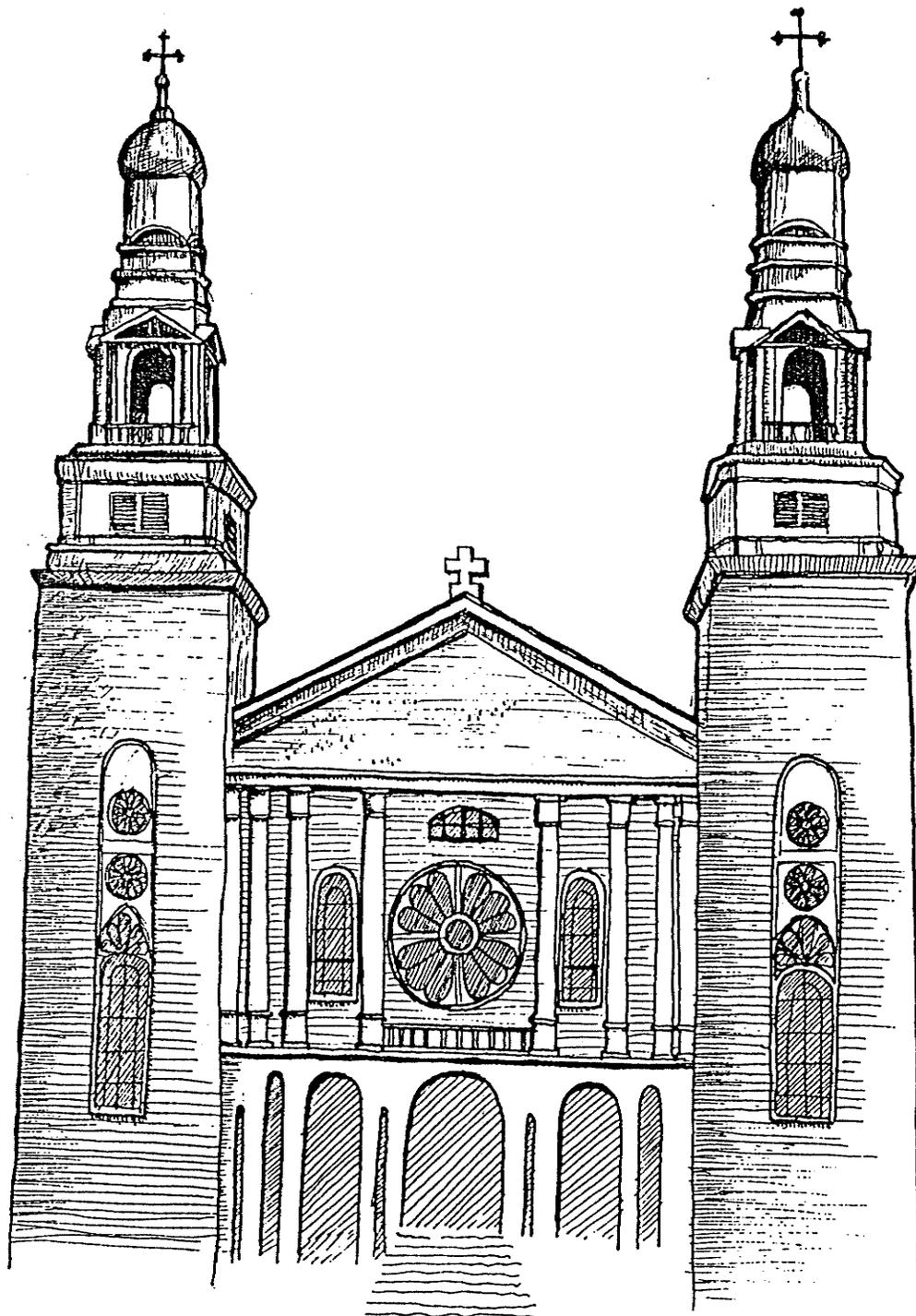


THE ST. NORBERT RIVER CORRIDORS - AN EXAMINATION OF PLACE



"The place . . . unites a group of human beings, it is something which gives them a common identity and hence a basis for a fellowship or society. The permanence of place is what enables it to play this role ." 1

THE ST. NORBERT RIVER CORRIDORS AN EXAMINATION OF PLACE



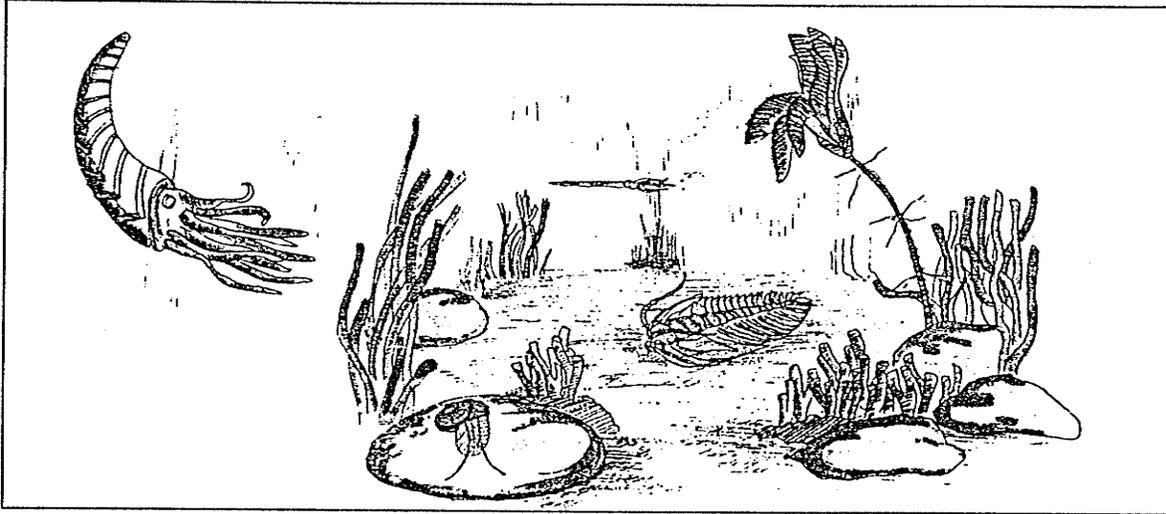
**HISTORY OF
THE ST. NORBERT LANDSCAPE**

THE NATURAL HISTORY OF THE PRAIRIE REGION

The study of the St. Norbert River Corridors begins with an examination of the landscape's natural history. This endeavors to answer basic questions of how this landscape came into being, and begins to explore the potentials, limitations and possible concepts for later recreational development. The natural landscape of St. Norbert is a product of a long evolutionary process measured in geologic time and beginning long before the evolution of mankind. Its development is connected to the broader prairie landscape surrounding the site area. To gain an appreciation and understanding of the natural landscape and its development, it is necessary to understand it within the context of surrounding system and its evolution.

The development of this landscape can be defined as an extremely long process. Expressed in geologic time, It extends from the Cambrian period to the present, a time frame of approximately 600 million years. In the beginning of the Cambrian period, the area currently defined as the Canadian prairies was occupied by a large warm salt water sea extending as far South as the Gulf of Mexico. This inland sea occupied a wide geosyncline and was the home of millions of invertebrates, plants, and other smaller life forms. The inland sea lasted for thousands of years, in which time life forms died, and were mixed with weathered Precambrian rock sediments from the surrounding tropical landscape. Over time the sea retreated and the life forms trapped in the

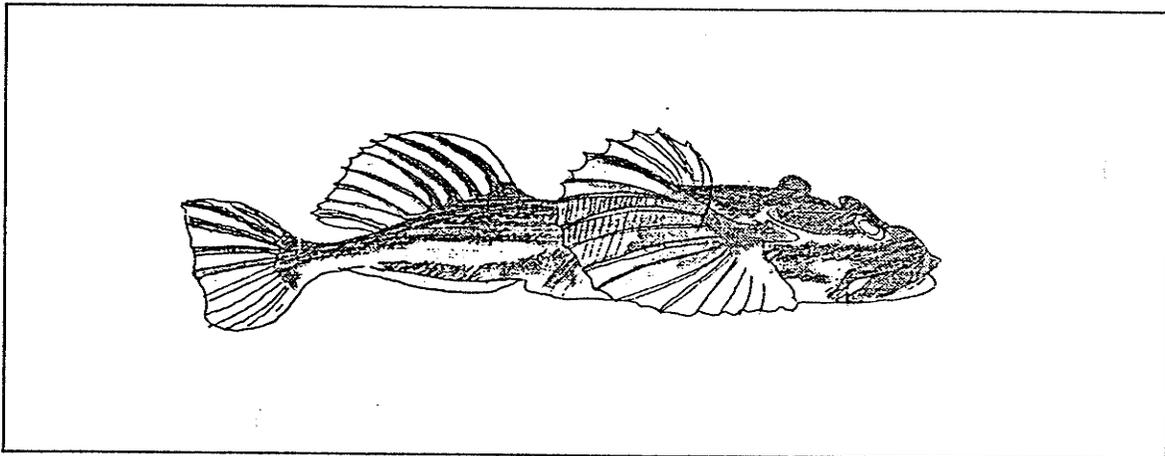
lacustrine sediments solidified to form the fossils that can be found in these deposits today.



SEVERAL WARM WATER SEAS COVERED THIS LANDSCAPE

FIGURE 1

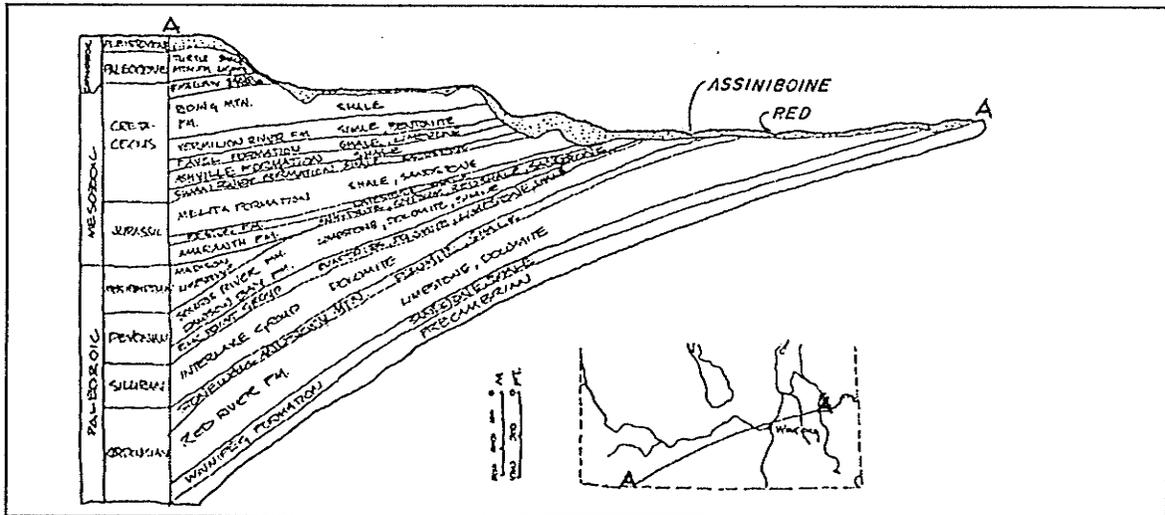
A second inland sea extended over most of North America in the Ordovician Period about 500-440 million years from the present. Like the previous sea, this was also filled with numerous plant life and invertebrates, but included other more advanced life forms such as mollusks and the first species of fish.



MANY EARLY LIFE FORMS ARE NOW PART OF THE FOSSIL RECORD

Figure 2

As time passed, the generations of sea life like those before them died and became mixed into the sediments, mud, and debris at the sea bottom. As this inland sea retreated southward, it left behind the debris which dried and become compressed at a later time to form what is now known as Manitoba Tyndal Stone. Contained within this stone are the sea life and plants that mark this period in prairie evolution. This band of rock underlies most of the province and has become an important building product typical throughout the prairie region. (figure 3)

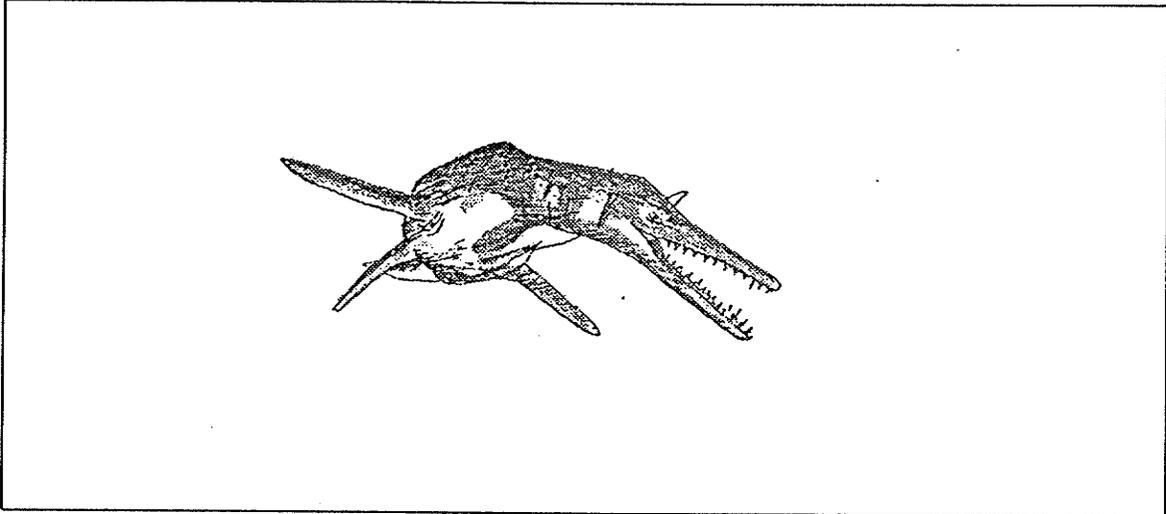


STRATIFIED SEDIMENTS MARK THE EVOLUTION OF THIS LANDSCAPE

Figure 3

In the Devonian, 400 million years before our time, a third sea emerges and remained over the region for approximately 50-55 million years, through which time many thousands of varieties of fish and plant life emerge and evolve. Once again the deposition from rivers covered dead life forms to record the period in the fossil record. By the end of the Devonian, the sea had withdrawn and land plants began to evolve, creating large fern forests which covered much of

the landscape. These tropical forests proliferated into the Carboniferous period 350-250 million years from the present, when yet another sea moved into the central Canadian region. Within this period, Canada saw the emergence of coniferous forests and numerous animals and other life forms including amphibians, reptiles and insects.



THE DINOSAURS WHERE ONCE A PART OF THIS LANDSCAPE.

Figure 4.

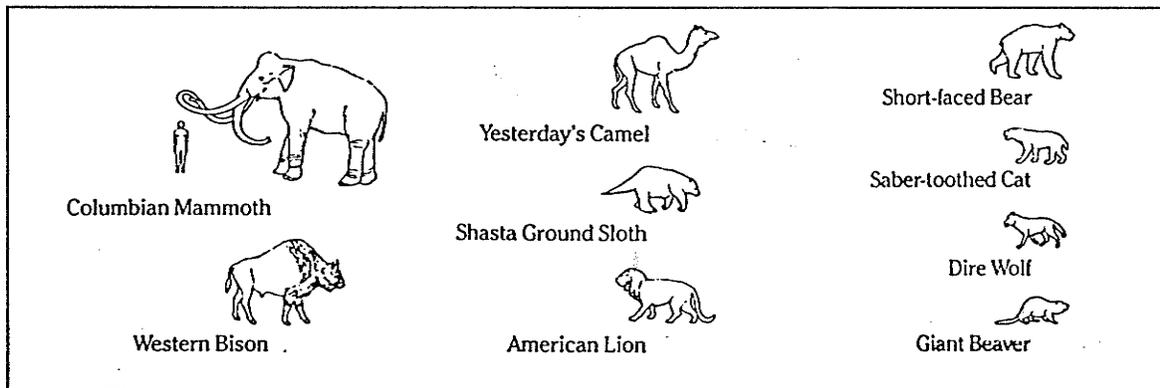
The Triassic period 230-180 million years from the present sees the emergence of the dinosaurs, which proliferate for 140 million years roaming the tropical landscapes of central Canada. (figure 4) Although fossil evidence of their reign is not readily obvious throughout the region, their presence is reported to be substantial throughout the area. The dinosaur's reign extended into the Cretaceous period 135-70 million years ago. During this time the area which is now the prairies saw the evolution of numerous varieties of birds and animal populations. The Cretaceous period saw the deposition of enormous amounts of sediments due to its tropical climate. This period marked the end of the inland seas and of the

dinosaurs, which accounts for the abundance of fossils from this period which have only been partially explored.

The Tertiary period (70-2 million Years Ago) saw a drastic change in the climate and landscape of the North American Continent which was to effect the central Canadian landscape in profound ways. Mountain building processes in the west developed a broad coastal range, which began to block the warm and moist Pacific air masses and began to channel air flows from the north.

"In later Tertiary times, there were signs that a great crisis in world climate was approaching. The North lands were growing colder, and luxuriant forest that once covered over the Arctic Islands began to retreat towards the tropics." 2 Bird 1980.

The overall effect of the Tertiary period was to transform the landscape through the cooling and drying effects of the changing climate. The tropical forests that covered the central regions of Canada, were replaced by a semi-arid prairie.

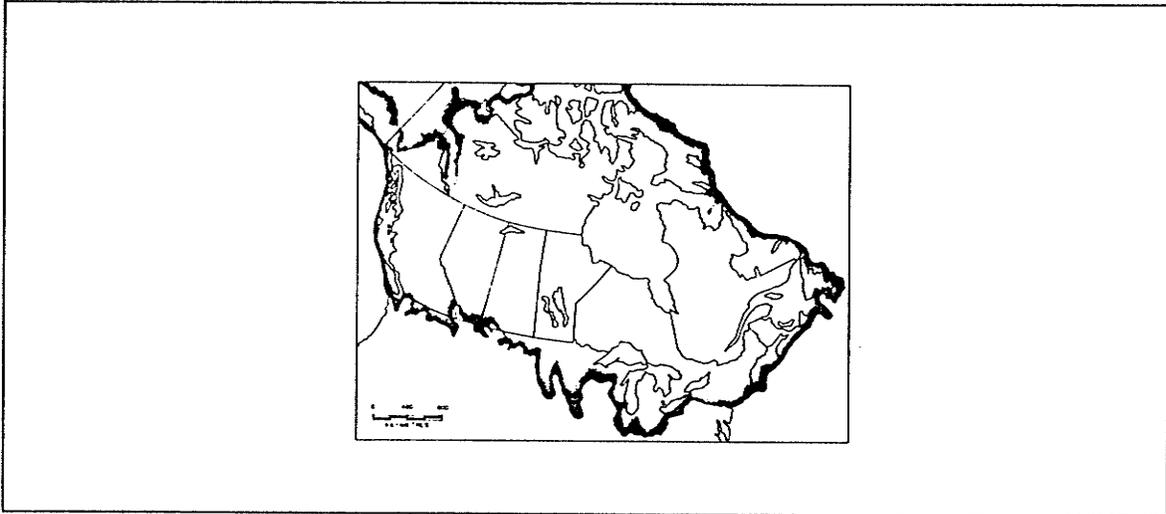


THE CHANGE IN CLIMATE SAW THE EMERGENCE OF NEW LIFE FORMS

Figure 5

These grasslands were roamed by mammals, many of which were close relatives of those today. The Quaternary period marks

the beginning of a gradual drop in the average temperature on the continent. The climate further degrades within the period, until most of North America becomes engulfed in masses of glacial ice.



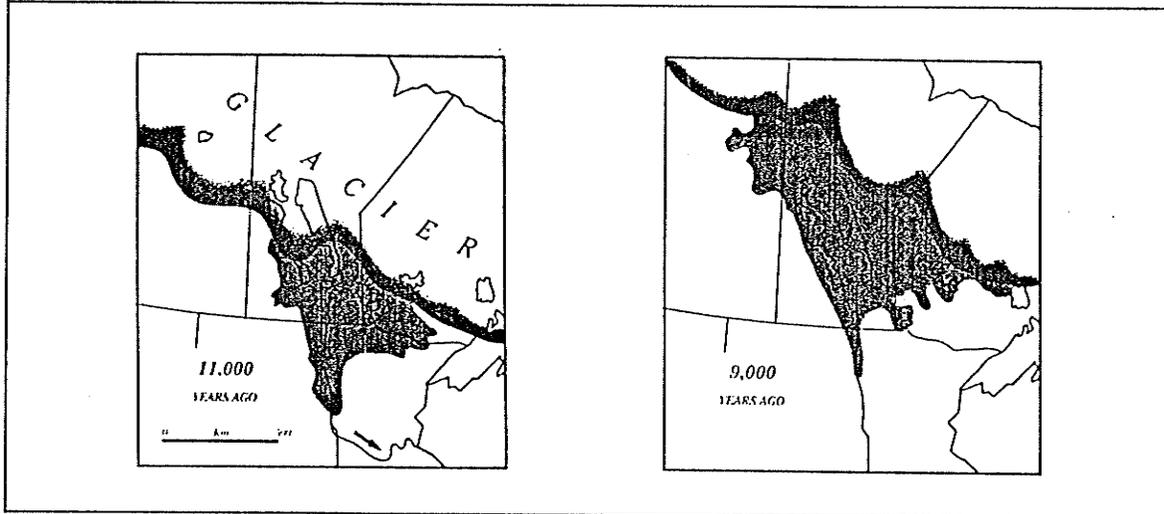
DURING GLACIATION ADVANCES COVERED MOST OF NORTH AMERICA

Figure 6

Initially only the high mountains of the Tertiary period were covered by glaciers, however as climate deteriorated further the glaciers advanced overwhelming most of North America. The glaciation sequence was repeated many times during this chapter of earth history, until all life was driven from northern latitudes with a small exception of a small band in a remote region of the Yukon. The last glacial retreat ended only 6000 years ago with the Wisconsin Glacial Period.

The most significant feature of glaciation to effect the prairie landscape was the large ephemeral lake that developed from collecting meltwater emerging from the margins of the glacial fields. The lake known as Lake Agassiz, formed at the edges of the Manitoba escarpment and the margin of the continental ice sheet. The lake at its full

extent covered almost all of Southern Manitoba and in some places extended approximately 400 kms into Ontario.

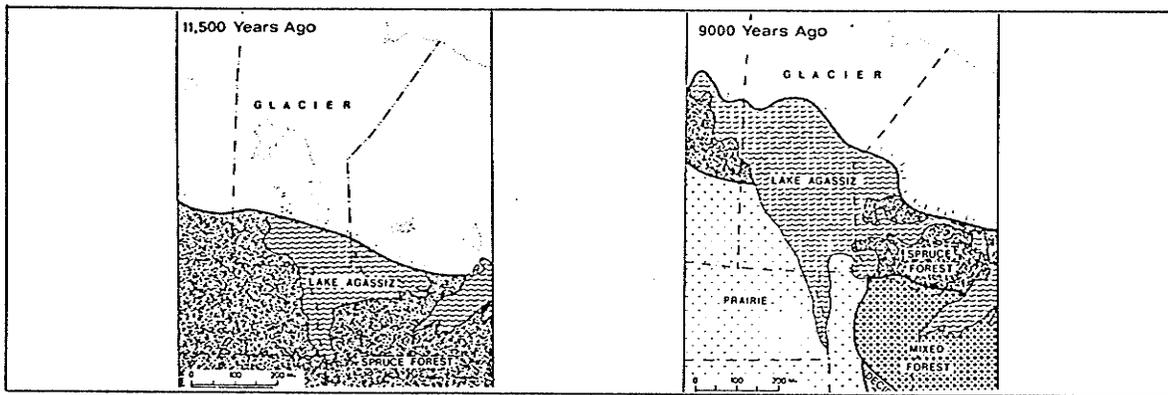


LAKE AGASSIZ PLAYED AN IMPORTANT ROLE IN THIS LANDSCAPE

Figure 7

The lake remained in the same general location changing several times with the position of the ice sheet. Its extended presence resulted in the deposition of large amounts of lacustrine clays and silts over the area it occupied, which today are some of the best farm land in the world. The blanket of sediments at the bottom of the lake left thick deposits under Winnipeg which now form an extremely wide flat plain which characterizes the landscape surrounding the St. Norbert river corridors.

The subsequent events that unfolded in the natural history of the region lead to the development of what is commonly referred to as the Tall Grass Prairie. This landscape represents a period in the natural history immediately prior to the settlement of the region.



THE EMERGENCE OF THE PRAIRIE LANDSCAPE

Figure 8

To begin to understand the place making characteristics of this local landscape one must gain an appreciation of what the surrounding prairies were and understand how they changed to become the cultural artifact known as St. Norbert.

THE PRAIRIE LANDSCAPE

When one views the St. Norbert area today, it is hard to envision that this landscape was once a broad flat prairie, traversed by two rivers, and filled with numerous plants and animals. The St. Norbert area in its pre-settlement age would have been classified as Tall - Grass Prairie: a mosaic of herbs, grasses, forbs and shrubs blended into a luxuriant floral composition.

The Tall Grass Prairie of the surrounding area was largely dominated by perennial grasses such as: Big Bluestem, Porcupine grass, June grass, and forb species including; Northern bedstraw, Canadian anemone, Goldenrod, Prairie lily

and Prairie rose. The various species and varieties of others formed the intricate compositions which changed according to subtleties in soil types, slopes, moisture regimes and solar exposure.

Adjacent to the tall grass prairie in the St. Norbert region was the Aspen parkland, which formed marginal to the grasslands. These two types of plant communities formed a dynamic equilibrium in their natural state, competing for the same general growing areas. The grasslands formed a thick mat of sod through which seeds and other plant species could not easily penetrate. However, the Aspen stands which reproduced through a system of runners that shot out laterally, developing suckers which then grew through the sod. In this way the tree stands would slowly invade the grassland areas, with the only check being the periodic fires that raged across the open prairies. The fires would destroy most of the aspen without adversely effecting the grassland sod which would immediately spring forth into growth.

The composition of the aspen parkland consisted primarily of bluffs of Aspen, Balsam poplar and Oak. Underlying these tree stands was assembled an associated layer of shrubs including: Hazelnut, Redosier Dogwood, High-bush Cranberry, Speckled Alder, Roses, Chokecherry, Pincherry, Saskatoon, and Wolfberry. At the margins of these treestands were broad combinations of floral types associated with the successional communities, relating to both the forest community and grasslands with some additional invading species.

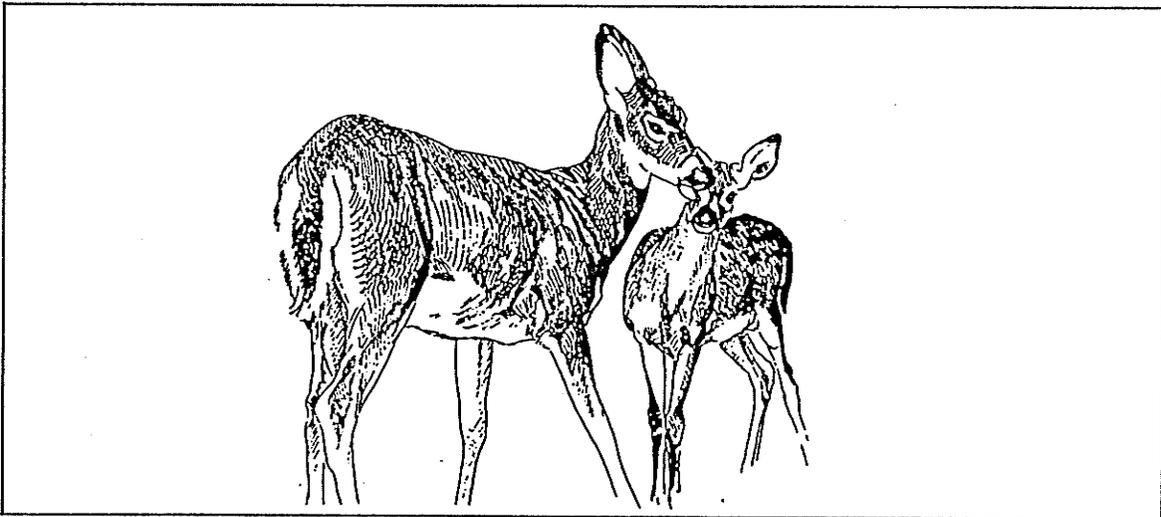
A separate but related vegetation community in the grasslands

was the river-bottom forests which bordered all the waterways in the Red River Valley. A highly representative community still exists in the St. Norbert area along the margins of both the Red and La Salle Rivers. The general composition of this forest type was Bur oak, American ash, Green ash, Manitoba Maple, Cottonwood, Aspen and Basswood.

The understory was dominated by Hazelnut, Saskatoon, Chokecherry, Pincherry, Redosier Dogwood, Currant, Highbush Cranberry and Downy Arrow-wood. The cross-section profile of this forest type showed a domination of Maple, Green Ash, and Elm, with lower areas occupied by; Oak, Maple and Ash in middle areas, and by Oak/Aspen in areas peripheral to the grassland communities.

The description of the plant communities associated with this part of the prairie region represents only an overview of the representative types prior to the occupation of man. What it does not depict is the immense beauty of this environment. The untouched pristine prairies were a mosaic of color. In spring a plethora of delicate flowers, grasses and forbes would emerge and display an abundance of floral beauty. This display would continue into the early summer as a infinite variety of plant species timed their blooming period to carefully evolved environmental sequences. In late summer the vibrancy of spring would give way to infinite hues of greens and yellows as maturing grasses and forbes prepared for the onrush of the winter season. The fall provided another colorful display as all the plants turned different combinations of red, orange, yellow and bronze. Light played

an important part in defining the prairie environment, as the sun made its migration across the sky, changing with the seasons and lengthening the shadows cast across the surface. The winter brought a different dimension to the beauty of the prairies, as a once vibrantly colored landscape was transformed into austerity, dominated by shades of white and blue, broken only by plants tall enough to remain above the snow cover. The ephemeral components of the prairie landscape were also an important dimension to its character and form. The sky provided an important dimension to this environment, as the broad flat infinite grasses appeared to blend into the horizon, a full 360 degrees. The sky brought dramatic variations in the weather patterns, turning an intensely hot dry day into a violent display of wind, rain and lightning. The sky also influenced the light on the prairies as cloud patterns drifted ever changing the intensity and duration of the sunlight.



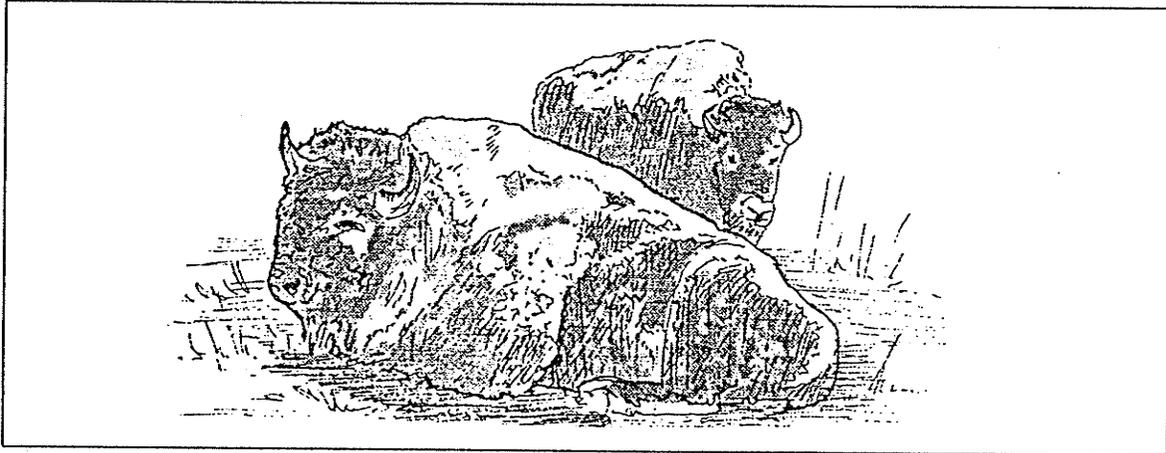
WILDLIFE WAS A SIGNIFICANT COMPONENT TO THE PRAIRIES

Figure 9

The wildlife was also an important ephemeral component to the

prairie landscape of St. Norbert. Prior to human habitation, the area was literally inundated with wildlife species, many of which are no longer to found in this area and some that are now extinct.

The most prominent of the wildlife species in recent history was the plains bison. Descriptions from the early settlers



THE PLAINS BISON WAS ONCE PROMINENT THROUGHOUT THE PRAIRIES

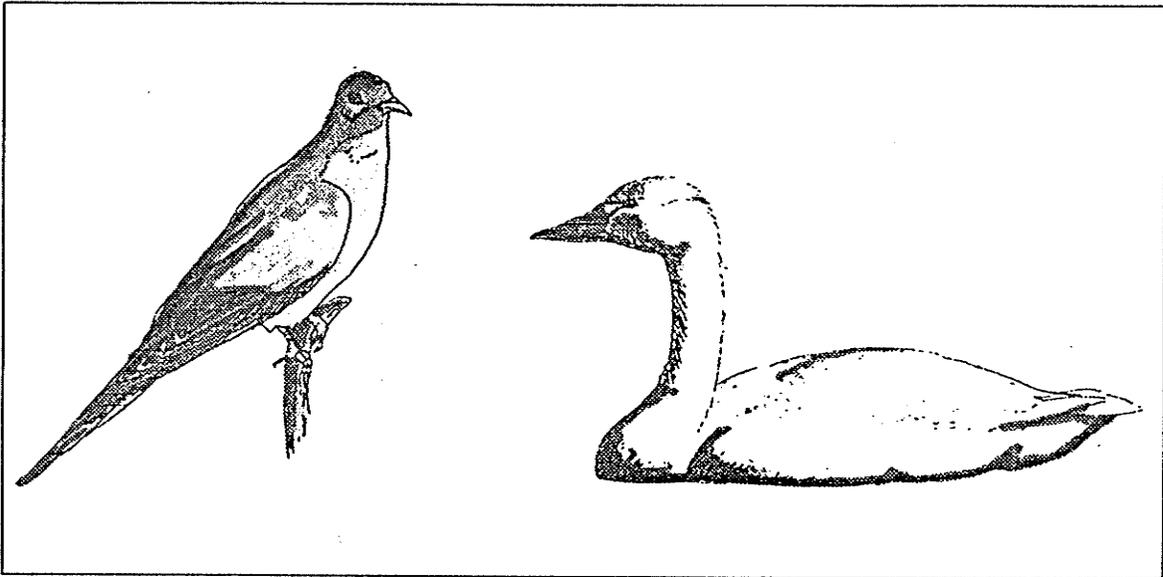
Figure 10

recalled the immense herds that once roamed the plains in and around the St. Norbert area.

"I had seen almost incredible numbers of buffalo in the fall, but nothing in comparison to what I now beheld. The ground was covered at every point of the compass, as far as the eye could reach, and every animal was in motion." 3 (Coues 1897)

The visual and emotional impact of this amount of one type of wildlife is almost incomprehensible, yet it is only one of the many examples. The area in and around the Red and La Salle rivers was the home of great numbers of Moose, Red Tailed Deer, Mule Deer, Pronghorn Antelope, and their predators, including the Black and Grizzly Bears, Wolves, Coyotes, and numerous varieties of Fox. Birds were equally

populus including great numbers of Carrier Pigeons, Bald Eagles, Swans, Whooping Crane, and numerous smaller species.



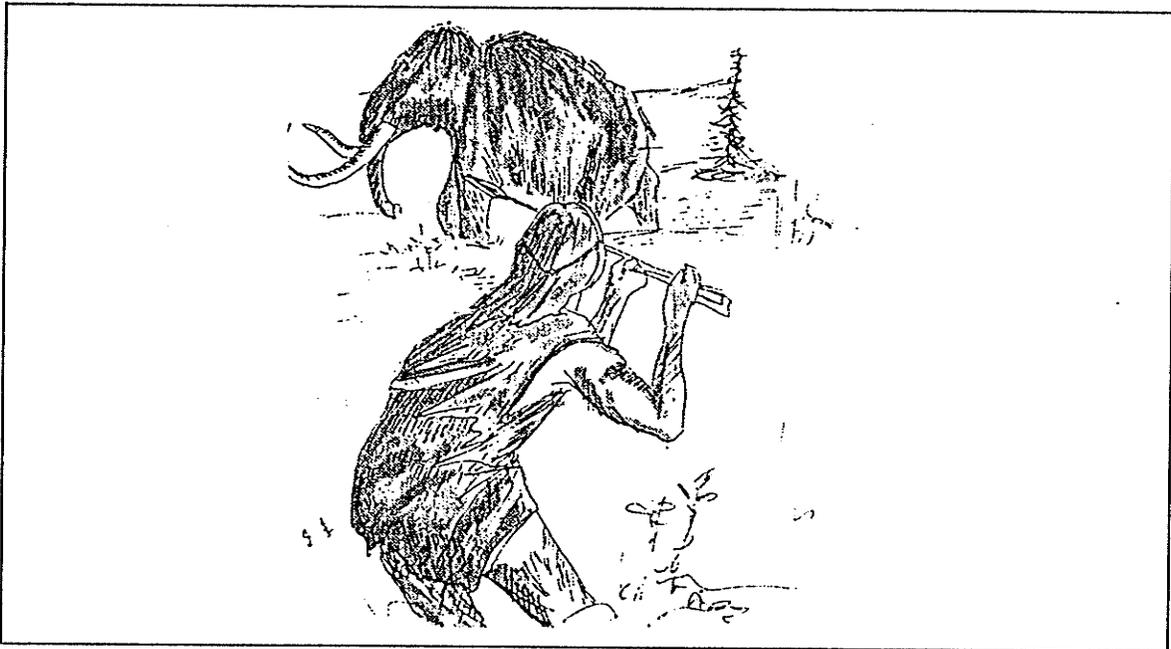
CARRIER PIGEONS AND SWANS WERE A COMMON SIGHT ON THE PRAIRIES

Figure 11

The prairies prior to the influence of man was a remarkably different place, more so than one can now imagine. From recent historic times to the present the prairies in general and St. Norbert in specific has undergone remarkable change. The influence of man has produced a series of changes that further transformed this landscape. Initially man had little influence on this landscape, however as he began to utilize and exploit its resources and settle upon it, the landscape underwent great change.

THE PREHISTORIC CULTURES

St. Norbert and the surrounding area became habitable approximately 8000 years ago, about 4-5 thousand years after the most conservative estimate of man's appearance in North America. Human habitation generally corresponded to the melting of the glacial overburden that covered the region, and the subsequent retreat of Glacial Lake Agassiz. The Native peoples of these prehistoric times were thought to have survived in a hunting and gathering culture, following the great herds of Mammoth, Mastadon and Giant Bison that roamed the area.



MAN ARRIVED IN THE AREA WITH THE RETREAT OF THE GLACIERS

Figure 12

This type of cultural existence remained constant among the native groups into the late prehistoric period, immediately prior to the European explorers. The precontact cultures relied exclusively on the land for their existence, which

developed into a well defined patterns of movement with well established territories. The "Selkirk" people depended largely upon fishing resources of the area, and the gathering of fruits and seeds, utilizing the parkland areas and the boreal forest regions of the landscape. The "Blackduck"



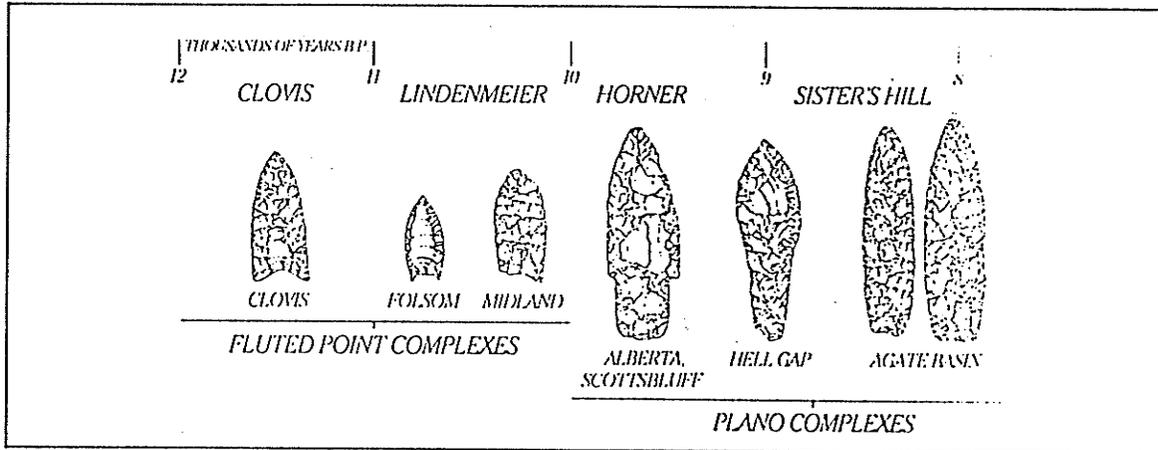
A BLACKDUCK POT FOUND IN THE AREA, EVIDENCE OF EARLY CULTURES

Figure 13

cultures with similar food sources, utilized the woodlands and grasslands for their territorial zones. "These adaptive strategies parallel those of the historic Cree and Assiniboine, where both met on the parkland in the winter. In the summer the Assinibione utilized the plain while the Cree retreated to the woodland for fishing and hunting."⁴ The survival of these aboriginal bands depended upon assembly at a number of places at different times of the season. Patters of movement emerged with the activities of hunting and gathering. " The fall fishing and buffalo hunt, rice gathering and sugar making, the trading voyage, and the dispersal to winter trapping grounds, gave some rhythm to movement of bands of plains and woods Indians." ⁵

The St. Norbert region was thought to have been occupied by a

number of different aboriginal groups in its prehistoric period, and apparently was the territory of a number of these aboriginal groups at different times. This territorial shuffling was probably due to locational factors that enhanced the St. Norbert region's desirability. These



PROJECTILE POINTS FOUND IN THE AREA DEPICT VARIOUS CULTURES

Figure 14

included the presence of two major rivers that were important transportation routes, protective natural forest cover, and an abundance of fish and wildlife resources that made the area a natural gathering site for these native groups. The proximity of the rivers further provided access to the surrounding large and varied tracts of territory that were important to the hunting and gathering cultures of this time. St. Norbert in its regional context was transitional to three distinct geographic zones. To the south and west where the extensive prairies, to the north and east the coniferous forests of the Canadian shield, and the parkland. The aboriginal groups occupying these areas continually travelled through and paused at the junction of the Red and La Salle in their seasonal movement patterns.

HISTORIC NATIVE CULTURE

Because the St. Norbert area was central to a number of different natural environments utilized by different native groups, it very early emerged as a place used by a number of native groups. It was because of this that, . . . "Assiniboine, the Western Cree, and the Ojibwa and to a lesser extent the Souix all considered the area their own territory." 6

The original inhabitants of the area were the Assiniboine people, who at the time were part of the Souix nation. After splintering from the Sioux people, . . . " the tribal territory of the Assiniboine reached from the vicinity of Rainy Lake on the southeast of the valley, to the Saskatchewan in the northeast. The boundary definition of this territory changed when the Assiniboine, out of trading alliance from the fur trade, and combined with other tribes forming united war parties and engaged the Sioux to the south."7 The war alliances caused great shifts in wintering grounds, hunting areas and the various territories of the the different groups, and often these areas would shift back and forth. The St. Norbert area was very much part of this territorial shifting zone, at times becoming a no-man's land and a war zone, as relations changed between the various groups. By the late 18th century the Assiniboine and the Western Cree had begun to evacuate the lower Red River region in search of more productive hunting grounds. The Saulteaux began to occupy the areas vacated by the previous groups. "It

was the Saulteaux that Alexander Henry traded with on the Red River at the turn of the century."8

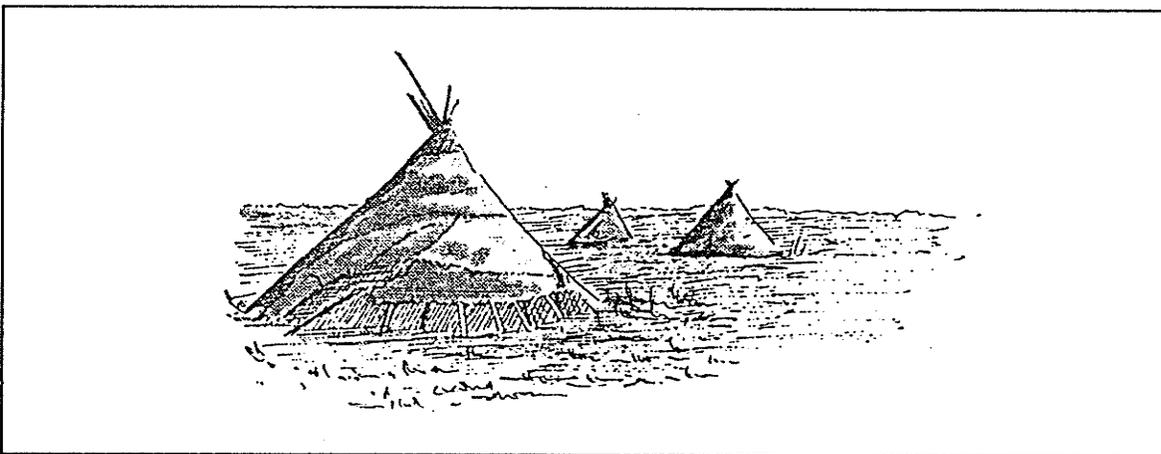
The lifestyle of the aboriginal groups immediately prior to European contact was not extremely different from the prehistoric groups that travelled the Red River Valley. In the precontact period, many of the aboriginal groups had an affinity for the parkland and plains of the Red River Valley due to the variety and abundance of resources it had to offer. The grasslands and river valleys sustained large populations of Buffalo, Elk, Moose, Waterfowl, Upland game and great varieties of vegetation that could be utilized as a source of food. The rivers also offered a large concentration of fish which allowed aboriginal groups to procure food with minimal difficulty. The varied landscape of the region also provided a wide variety of vegetation that was highly utilized by aboriginal groups for medicinal purposes.

The tall grass prairies offered a wide variety of food plants such as Rose, Bedstraw, Sunflower and Goldenrod. The marshes and river edges provided various tubers and greens such as Cattail, Wild rice, and Arrowhead.

The Aspen forests and the parklands of the region provided a variety of fruiting trees such as Chokecherry, Plum, Cranberry, Pincherry, Nanyberry and Hazelnut. The river bottom forests provided Maples for sugar, wild grape and combinations of other useful plants available at different times of the year. These food sources combined to make the St. Norbert area an inviting place that was well utilized for its resources.

"The Red River Valley, rich in both animal and vegetable resources provided abundant harvests to the people who resided there. Each area of the valley, the river bottom forests, the tall grass prairie, the marshland and the Aspen forest, and the parkland offered the Indians of the region a variety of crops, and different traditions of utilization grew up among the peoples who harvest these. The land at certain times of the year was rich enough to allow warfare to be carried on with the Sioux to the south, but at times the land held back her gifts." 9 (Morton 1974)

On occasions when the climate become inhospitable, hardships ensued and food provisioning become quite difficult for the natives who utilizing these resources. A duality existed in their lifestyle as the natives relied so heavily upon the resources of the area, that very often his life would consist of feast and famine, switching back and forth at the mercy of the environment. During this period of native prehistory, the Indian bands had little ability to effect their environment in any meaningful way. Their lifestyle was based on a hunting and gathering culture, transient in nature, utilizing the resources of the region and following the migration patterns of some of the larger mammals.



THE INDIAN TEEPEE WAS ONCE A FAMILIAR SITE ON THE PRAIRIES

Figure 15

The only significant imprint left by the native groups during this time were the vestiges of their campsites abandoned for a new location. Tribes using the familiar teepee often left small rings of rocks used to anchor the base of these tent structures. These circles were an obvious sign of native presence but lasted only for a short time as grasses obliterated their presence. In some instances Natives erected pole and birchbark structures which were often utilized as medicine lodges and located in more permanent seasonal campsites. These too were temporal in nature and left little impact upon the landscape. Gravesites were the only other cultural artifact left by these early natives. They were very culturally specific and also very ephemeral, sometimes involving built structures and other times without even a modest marker.

The modes of existence of these native peoples remained consistent of generations, living a harmonious existence with the natural environment. The only possible exception was the fires that were often set by Natives for a variety of reasons. However even these had little impact, as they were environmentally ingrained and a very necessary part of the Prairie ecosystem.

With the arrival of the European explorers the Indian lifestyle was bound for change, which resulted in an almost immediate impact upon the landscape. At first the result of the two groups meeting was not significant and its effect on the landscape not extremely obvious. In fact the earliest recorded accounts of the European explorers and settlers of

the prairies described an almost ideal relationship between the Indian and the natural landscape.

NATIVE IMPACT UPON THE LANDSCAPE

The earliest exploration of the Red River Valley was conducted by the French which consisted mainly of the "path finding treks of Daniel Greyselon, De Lhut, De Nayon and Radisson and Grosillers."¹⁰ Sieur del La Verendrye and this son, apparently reached the Red River Area in 1736 in similar exploration missions. La Verendrye encountered Assiniboine Indians when he first arrived, who were hunting and gathering fishermen, traders and warriors. The interaction between the two cultural groups during the early European reconnaissance periods consisted mostly of native groups assisting the explorers in their efforts to adapt to a new environment. Initially many of the Explorers took on the Indian way of life, adapting his knowledge of the environment and his close interaction with geography.

"These Canadians lived and had lived as the natives of the plains and woodlands lived, hunting , fishing and trading, at one with the land and usually sharing accommodation with one or a series of Assiniboine, Cree, Saulteaux or other women" ¹¹ (Brown 1980)

This period of exploration had a relatively minor impact upon the landscape, however the repercussion eventually became extensive, the results of which are still evident today, and no doubt for eternity. With the arrival of the Europeans came a new trading group, a custom which the natives had long

established with other aboriginal nations of North America. This factor made it easy to establish the early fur trade relations between the natives and the Europeans trading through the X. Y. Company, the North West, and Hudson Bay Companies.

The earliest traders in the region were the French entrepreneurs who were attracted to the prospects of a lucrative fur trade and the explorers who traded while in search of the Western Seas. By the Late 15th century Jacques de Noyan, an early French explorer had reached the Red River Area, however it was not until the arrival of La Verendrye that an organized trade system become established.

The trading partnership between the Natives and the Europeans initially emerged out of a desire amongst the Indians to obtain luxury items and by the overseas markets hungry for the rich furs plentiful in these virgin lands. This early engagement in commerce was the first of a series of events that lead to an almost total transformation of the prairies and the creation of the cultural landscape of St. Norbert.

The initial contact with early French traders brought a desire among the plains Indians for items such as axes, kettles, knives, awls and later, guns, powder and bullets. For these, the Indians traded the rich furs which spurred on the European/North American fur trade. The desire for furs in the European market and the prices they commanded brought additional traders and eventually the settlers who would further transform the landscape.

The Indians began to rely on these new trade items to sustain

their life and existence on the prairies.

"The blanket had replaced animal skins in terms of clothing, the gun replaced the bow and arrow for warfare and largely for hunting, the kettle had replaced the birch-bark basket for boiling water and cooking, and tea, tobacco, and alcohol had become more important to the people than at times, life itself. Trade had become a means of survival for these peoples, rather than a way to obtain luxuries. Trade meant the further exploitation of the valley's resources with the very effective methods of harvesting introduced by the fur trade, the steel trap and the gun. The pelts of the fur-bearers and the meat of the buffalo were what the Indians needed, and these they obtained in order to trade for what they had come to rely on as necessities." 12 (Hurst)

The extent of the Indian's impact upon the landscape had begun to change. No longer were the Indians maintaining a peaceful co-existence with their environment, and keeping a healthy balance. The hunting and trading that now dominated their existence due to the influx of the Europeans was placing significant pressures upon the animal populations. The abundance of wildlife that had once characterized the prairies was becoming locally scarce. The process was described by David Thompson, a Western explorer in the early 1800s.

"The Nipissings, the Algonquins and the Iroquois Indians, having exhausted their own countries, now spread themselves over these countries, and as they destroyed the beaver, moved forwards to the northward and westward; the natives the Nahathaways, did not in the least molest them, the Chippaways and other tribes made use of traps of steel, and of the castorum. For several years all these Indians were rich . . . and all was finery and dress. The canoes of the fur traders were loaded with packs of beaver, but there were no chiefs to control it, all was liberty and equality. Four years afterward almost the whole of these extensive countries were denuded of beaver, the natives became poor, and with difficulty procured the first necessities of life, and in this state

remain, and probably forever." 13 (Tyrrell 1916)

The overuse of the fur bearing resource base and the resulting demise of the related lifestyle typified the Indian experience in the fur trade. His highly efficient skills at utilizing his environment teamed up with an overwhelming desire for these luxury goods, created a short lived lifestyle to which he became accustomed. The impact of the Indian's endeavors was transforming the prairie landscape, which has become evident in the reduced numbers of animals to be found in the St. Norbert area and the surrounding prairie region.

The decline of the fur bearing resources occurred relatively early in the storey of the fur trade. The reduced animal populations resulted in a change in lifestyle for the Indians of the area who were involved in the fur trade.

"The Indians of the valley were forced into the role of buffalo hunters, as provisioning became more important, or they turned to agriculture and the more traditional pursuits of rice gathering, sugar making, berry gathering and fishing in order to obtain trade goods." 14 (Hurst 1984)

The endeavors that were to have the most lasting indication of the Indian's influence on the landscape was the buffalo hunt. The Indians devised a number of efficient ways to effectively capture and kill hundreds of buffalo in a single hunt. The impact of these hunting expeditions was physically not that prominent, yet the implications were to have long term effects as the buffalo, like the beaver before it became drastically reduced in numbers. The only immediate impact to

be seen was the conspicuous absence of game animals and the piles of bones that were left behind after the slaughter.



BUFFALO HUNTING REMOVED ONE OF THE ICONS OF THE PRAIRIES

Figure 16

The buffalo pound was a typical device used in these massive hunting excursions and consisted of enclosures constructed of trees cut and woven to form a walled structure, into which the buffalo were herded. The pounds and the lands surrounding them become the dumping grounds for buffalo bones that often collected in number from seasonal use of at these structures. The impact of these structures was ephemeral, as their usage was seasonal and very often the hunting activities shifted to new locations. The pounds therefore were often abandoned for new locations where the buffalo were more abundant, leaving the ruins of the pounds and the associated buffalo bones. The movement patterns of the buffalo were important as the populations had begun to dwindle in various locations.

"The buffalo which had formally sustained large winter concentrations at Assiniboine in the area of the Red River, no longer frequented the area in any number by 1820." 15 (Ray 1974)

The Indian's role in the buffalo was in providing pemmican to the fur trade in order to obtain the goods to which he had become accustomed. The supply of pemmican was crucial to the ongoing operations of the fur trade which increased the importance of the buffalo hunt and ensured its continuance. The harvesting requirements for provisioning the fur trade drastically reduced the population of buffalo, which had become almost locally extinct by the mid 1870s. "The buffalo was the lifeblood of these peoples, providing them with shelter, food, trade goods, and sport." 16

The destruction caused by the Indian in his attempts at provisioning the fur trade could be viewed as minimal when compared to the hide and robe market that emerged in the United States in the mid nineteenth century. The wholesale slaughter that arose from this market demand systematically eliminated all the buffalo from Manitoba, until the last wild buffalo was killed in 1887 in the Souris River country. The buffalo herds that were once one of the defining elements of the prairie landscape were completely gone.

"This total destruction of the large fauna was the second and most devastating effect of the buffalo hunt upon the landscape of the plains. The disappearance of the buffalo as a result of the greed of the Indian and the half-breed marked the end of an era. It also resulted in the collapse of a number of Indian cultures as well as a large part of the Metis culture at Red River. When the pemmican market gave way to the hide market, this change brought about a huge demand for hides created by the Crimean and American Civil Wars, the killing become absolute." 17 (Morton 1957)

EARLY SETTLEMENT

The examination of the St. Norbert river corridors and adjacent landscape as a place, has so far dealt almost exclusively with the natural environment, its character and the components of which it is made. To further disclose the qualities of locality, one must look at the action of man as a further building block of "place".

The initial actions of Native peoples in utilizing their environment and the acts of provisioning the fur trade, started a process of transformation in the natural landscape. The impact was significant, but set into motion a larger process that would change the face of the prairies, leading to what is now referred to as the community of St. Norbert.

The impetus for development of St. Norbert was largely the result of surrounding influences and events of the fur trade. The various trading companies wished to establish and maintain a significant presence in the district as a means of protecting their interests in the fur trade. This was largely done through the establishment of a variety of trading posts and forts through which the companies could conduct business. Many of the early forts in the Red River district such as: Fort Douglas, Fort Gibraltar, Fort Garry, Fort Rouge, Upper Fort Garry, Lower Fort Garry, and Fort La Reine provided the trading companies with adequate representation of their trading interests in the area.

One of the significant early trading companies, the North West Company, emerged out of the closing of the first French

trading posts in the early 1760s. It was eventually established in 1804 from the former Coureurs Des Bois, Metis, and Voyagers of the region, forming a strong competitor for the established Hudson Bay Company. The two companies began to actively compete for the same supply of resources. This competition played a critical role in the settlement of the Red River Region and eventually the community of St. Norbert. The first attempts at settlement in the surrounding region were initiated by the Hudson Bay Company as a means of establishing a presence and providing a resource base that could supply provisions to company traders. Thomas, The Fifth Earl of Selkirk set out to establish an agrarian community along the banks of the Red River, . . . "which would not only supply provisions to the York Boat brigades from the north, but would be self-reliant and would establish the Hudson Bay permanently in the midst of one of the North West Companies principle operational modes" 18



FRENCH RIVER LOTS FORMED THE BEGINNING OF SETTLEMENT

Figure 17

The beginnings of settlement in the region took the form of the French long lot system as laid out by Peter Fidler, in 1813. "He initially laid out the lots for the Selkirk settlers in the vicinity of Point Douglas, . . . and by 1818 had surveyed lots 22 miles north. St. Norbert wasnt surveyed until between 1835 and 1838 when George Taylor surveyed the entire colony. " 19 The river lot system was a strong form determinant in the early landscape, as it was laid out to best take advantage of water, wood, field areas and hay lots that naturally occurred as one moved away from the rivers. The new Selkirk settlement was intended as a permanent and self sufficient hub of an expanding agricultural base, that would supply the fur trade. However, it early become the object of competitive aggression as the rivalry between the two trading companies flared. The frontier justice inspired a number of attacks, leading to the destruction of Fort Douglas which was built as part of the settlement. The attacks were apparently in reaction to the Colony's Governor forbidding exportation of pemmican and other provisions from the area.

"The North West Company interpreted this proclamation as an attack on their jugular vein of communications and supply. Their employees, the Metis viewed the proclamation as anathema to their lifestyle. Inspired by their traditional distrust of the Anglais, they drove the Red River Settlers from Fort Gibraltar. There ensued a series of ugly incidents, massacres and prolonged legal squabbles." 20 (Woolsey 1980)

The relations between the two companies were characteristic of this incident and continued as such until the amalgamation of the two groups under the Hudson bay Company in 1821. The

absorption of the North West Company had not only a drastic effect on the fur trade, but it was also the impetus for the initial settlement of the St. Norbert Area. "After 1821, when the North West Company and the Hudson Bay Company amalgamated and were able to cut their staff by two-thirds, a great number of Metis laborers and Voyageurs were released from service. Many settled at Pembina, at Grantown on the White House Plain, and to the south and east of the Red, Assiniboine and Sale Rivers."21

The early settlers of St. Norbert region were almost exclusively French Metis, who squatted on or were granted a piece of land in the typical long lot configuration, to be used for agricultural purposes. The St. Norbert landscape provided an ideal land, as the banks on the river were high and well drained providing natural levies for fields and gardens. The river bottom forest of the area afforded shelter, a supply of wood for fuel and building materials, while the prairie grasses were ideal for livestock and hay fields. However, many of the Metis who initially settled this region did not actively or extensively use the land for agricultural purposes. Their lifestyle still attached to the seasonal use of land, settling at different times and pursuing hunting and fishing at other times of the year.

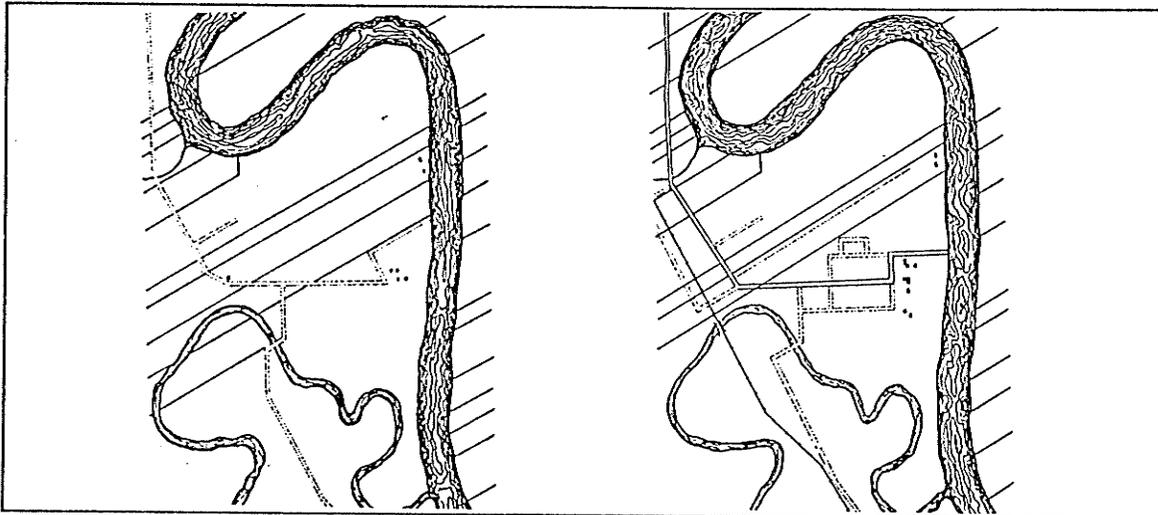
The . . . "typical Metis homesteads were little more than a house, a stable or barn, a small cultivated kitchen garden, perhaps a henhouse, and maybe some sheep."22 The homesteads by any means were quite modest even when compared to those of other settlers of the time. This was largely due to the

involvement of the Metis in the continued actions of the fur trade in the capacity of provisioners and participants in the York Boat brigades in the north.

The division of land in the river lot system for settlement purposes signified the further subjugation of the landscape under man's influence. The river lot boundaries began to become quite obvious as agricultural practices plowed fields, erected fences, cleared forests and generally subdued the landscape under this configuration. The subsequent development, served to further this basic spatial organization set out by the French long lot system through road construction and additional subdivision.

Transformation of the St. Norbert landscape from its agrarian beginnings, emerged out of the activities of the settlers, and the outside religious and community influences. The settlement patterns that initially conformed to the special organization of site and the configuration of the river lot system began to be informed and layered with additional influences and development. The expansion of the settlement at Assinaboia, and the trade linkages to St. Paul Minnesota brought the formalization of roads. "In 1853, the Assiniboian Council named Francois Bruneau, Manimilien Genthor, Jean Baptiste Lepine, Salomon Hamelin, Michel Dumas, Narcisse Marion and Joseph Charette to build a road along the western bank of the Red River"23 The road was constructed on the original Pembina Trail adjacent to the fledgling settlement of St. Norbert. This provided connections to the Red River settlement and formed the basis for a new type of

development that was contrary to that of the river lots.



ST. NORBERT DEVELOPMENT C. 1857 AND 1870

Figure 18

By the mid 1840s the Metis population had become significant enough to gain the interest of Monseigneur Provencher, the bishop of St. Boniface. This resulted in the commissioning of the Grey Nuns to teach religion in the settlement, and one year later, . . . "the church was begun on the site of the present church in June of 1855. In June 1857 the parish of St. Norbert was founded, named in honor of Norbert Provencher, the first Bishop of St. Boniface."²⁴ Shortly after the founding of the parish the Grey Nuns apparently established a small convent school adjacent to the church which was replaced some time later by a more substantial structure. These early buildings were the first significant structures associated with the community. "Up until 1868, except for a few small exceptions, settlement remained firmly tied to the rivers of Southern Manitoba, with little development of any consequence occurring away from the rivers."²⁵ However the transformation of this local

landscape was well on its way from its initial agrarian beginnings.

THE RIEL REBELLION

The cultural history of St. Norbert portrays an important period in the development of the greater Red River valley and more specifically the emergence of a province within the Canadian Confederation. In other words, St. Norbert and the immediate surrounding landscape was the site of a series of events leading to the formation of the Province of Manitoba in Canadian Confederation. These events can be summarized under the Metis cultural revolt in the Riel Rebellion and the resulting actions and reactions within the emerging Canada. The issues and events of the Riel Rebellion are clouded and the subject of many literary debates. As such, is is not within the scope of this study to debate the positions of the controversy, but to depict the series of events as they relate to the History of the St. Norbert region.

The genesis of the rebellion finds its roots within the political climate of the Red River region in late 1868. The region was on the verge of significant change as the Dominion of Canada was looking to the west as a means of expanding the country's frontiers. " The Americans to the south, fired by their dreams of manifest destiny, saw the British North West as their own, its future already aligned and assured within a Yankee paradise."²⁶ The British wishing to rid themselves of their colonial responsibilities, saw the dominion as a means of accomplishing this. " The following year, the Hudson Bay

Company sold its governing authority and land to the Canadian Government."27 The land transfer of Assiniboia was conducted without informing the wards of the territory who were undoubtedly shocked by the bold move. The news of the Dominion of Canada and the Hudson Bay Co. land transfer trickled down to the Red River Settlement and disrupted the spirit of the community.

An overwhelming attitude against the Dominion's actions surfaced when surveyors were sent west to survey the lands within the Red River Community and the St. Norbert area. Apparently the surveyors were sent to protect the rights of the settlers, Indians and Metis of the region from the influx of new settlers expected to arrive in the new lands. The actions of the surveyors however were regarded with much suspicion among the members of the community and especially the Metis. When the surveyors began to survey established territories and lands, the community voiced their concerns and turned to Riel for help. Riel intervened and stopped the surveyors from continuing the work for which he viewed they had no right to carry out. "Following this incident, a Provisional Government was formed in the St. Norbert rectory on Oct. 16, 1869. Because Riel was well educated and thoroughly bi-lingual . . . he was named secretary."28 The ensuing events subsequently named the "Riel Rebellion", posed the Metis against the formal community and the Dominion of Canada. The epicenter of this historic uprising centered on the community of St. Norbert. One of the most significant events was the stance taken against the arrival of Lieutenant

Governor William McDougall in the community, who was seen as a threat in the question of land rights. The following letter was sent to discourage Lieutenant Governor McDougall from entering the Red River Region.

"Sir,

The national Committee of the Red River Metis notify Mr. W. McDougall of the orders not to enter the North West Territory Without special permission from this committee.

By orders of the President

John Bruce

Louis Riel, Secretary

St. Norbert, Red River

Oct 21, 1869." 29

Apparently the letter had little effect upon McDougall, who made his way to the Red River Area by way of the United States. His actions angered the Metis, who physically barricaded McDougall's arrival into the settlement. The barricade and its armed Metis formed across the Pembina trail, adjacent to the community of St. Norbert, and was continually manned for approximately 15 days. " On November 1, 1869 two of McDougall's men were stopped at the barrier. McDougall himself was stopped at Pembina, before he even set foot on the colony's soil."³⁰ The next action, on the second of November 1869, was to again muster their forces and take Upper Fort Garry. The group of Metis were able to approach

the Fort, enter in and seize the fortress without so much as firing a shot. The reason for the capture had apparently been to stop any forces that McDougall might muster at Pembina and to stop any reaction from the settlement.

The Rebellion and subsequent fort capture caused vehement reactions among the Metis forming a counterpoint to their movement. The opposing group was headed by a Dr. Schultz, former editor of the Nor'Wester and now a self proclaimed leader " . . . of a small group of WASP immigrants, in a frenzy to become a part of the Canadian Army of liberation. .

. ."31 The opposition proved to be a vulnerable force and were incarcerated by Riel and his followers a short time after their grouping.

The events that unfolded through the remainder of 1869 and into 1870 shifted away from St. Norbert and focussed on Upper Fort Garry. However, a number of significant events also occurred outside the immediate area of the settlement, that were in reaction to the uprising. Within the U.S. were significant interests who protested Canada's proposed takeover of territory they thought should belong to the United States. " Waiting in St. Paul was at least \$ 1 million, plus patriots willing to muster volunteers to support Reil's rebellion if it looked as though the colony might go American." 32

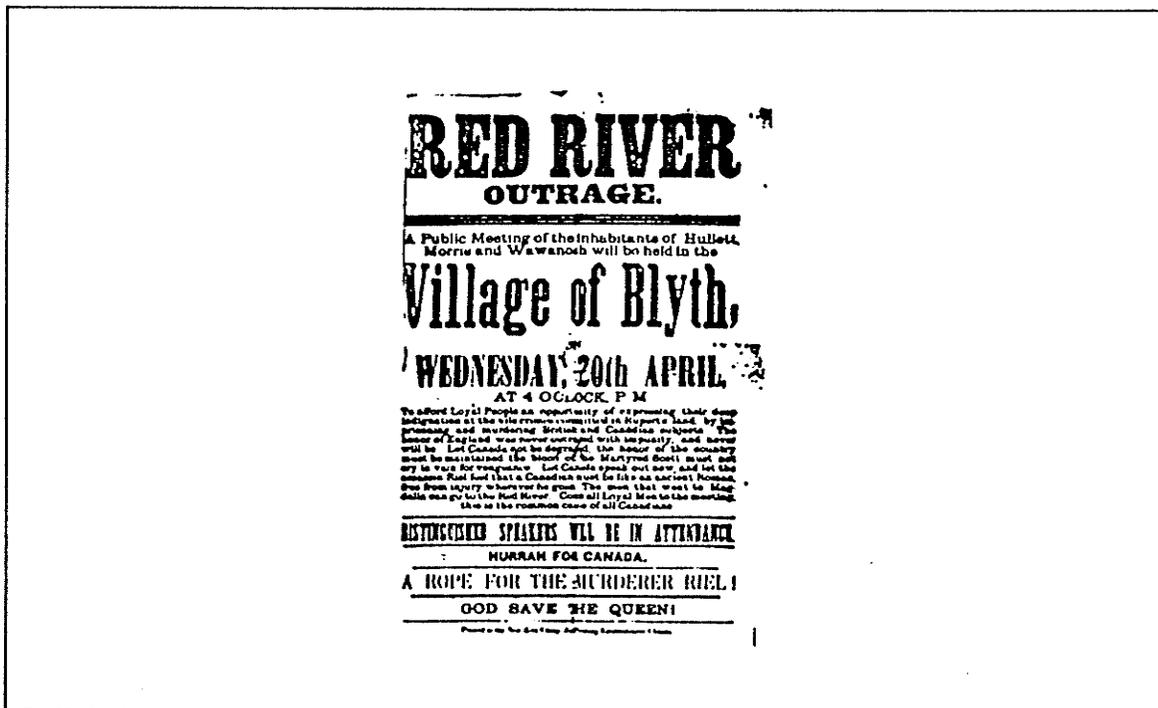
Outside the settlement in formal Canada, a number of messengers and emissaries were solicited and sent to the Red River settlement on missions of peace. Most of those sent had little effect upon the Rebellion members who placed them

under house arrest. The exception to these being Donald H. Smith who succeeded in talking to Riel and his followers. He convinced them of Canada's good intentions and his audience voted to resume talks with delegates from both the French and English Parishes. The delegation became known as the "Convention of Forty" which met continuously for weeks to discuss the notion of alignment within Canadian Confederation. The meetings resulted in the production of a list of settlers rights, a draft constitution, discussions of a general election and demands for provincial status. The Convention unanimously elected Riel as president and appointed three delegates to take the drafted list of rights to Canada. The meetings of the Convention of Forty were apparently held in the St. Norbert church and rectory which have brought national significance to this area.

The ensuing party that followed the deliberation of the Convention of Forty saw the escape of Dr. Schulz and his followers from the Metis imprisonment. The reunited forces proceeded to oppose the Metis provisional government, and muster support for their cause. In doing so, ". . . a force of 60, mustered in response to Dr. Schultz's fiery rhetoric, had captured a retarded Metis boy in Headingly, marched him to Kildonan church and imprisoned him for the night."³³ The incident escalated when the boy, on escaping accidentally shot and killed Hugh John Sutherland. The boy was recaptured by Schultz's men, who proceeded to torture him. A short time later the boy died from wounds inflicted to his head from a hatchet wielded by Thomas Scott, one of Shultz's loyal

followers.

A series of incidents followed the boy's death including an assassination attempt on Reil life and an attack on Upper Fort Garry by Thomas Scott. Both attempts failed and a great number of Dr. Shultz's men were recaptured, including Thomas Scott. Immediately upon his capture, Scott was tried by a military court for the death of the Metis boy and was found guilty and sentenced to death. He was later granted a stay of execution, tried again and for a second time and was found guilty and again sentenced to death. "Two members of the military tribunal voted against death and offered to escort Scott out of the territory. With lunatic bravado he replied that he would be back before his escort to carry out his intent to murder the president. On the morning of March 4 he was executed."34



NEWSPAPER DEPICTION OF CANADA'S REACTION TO RIEL REBELLION

Figure 19

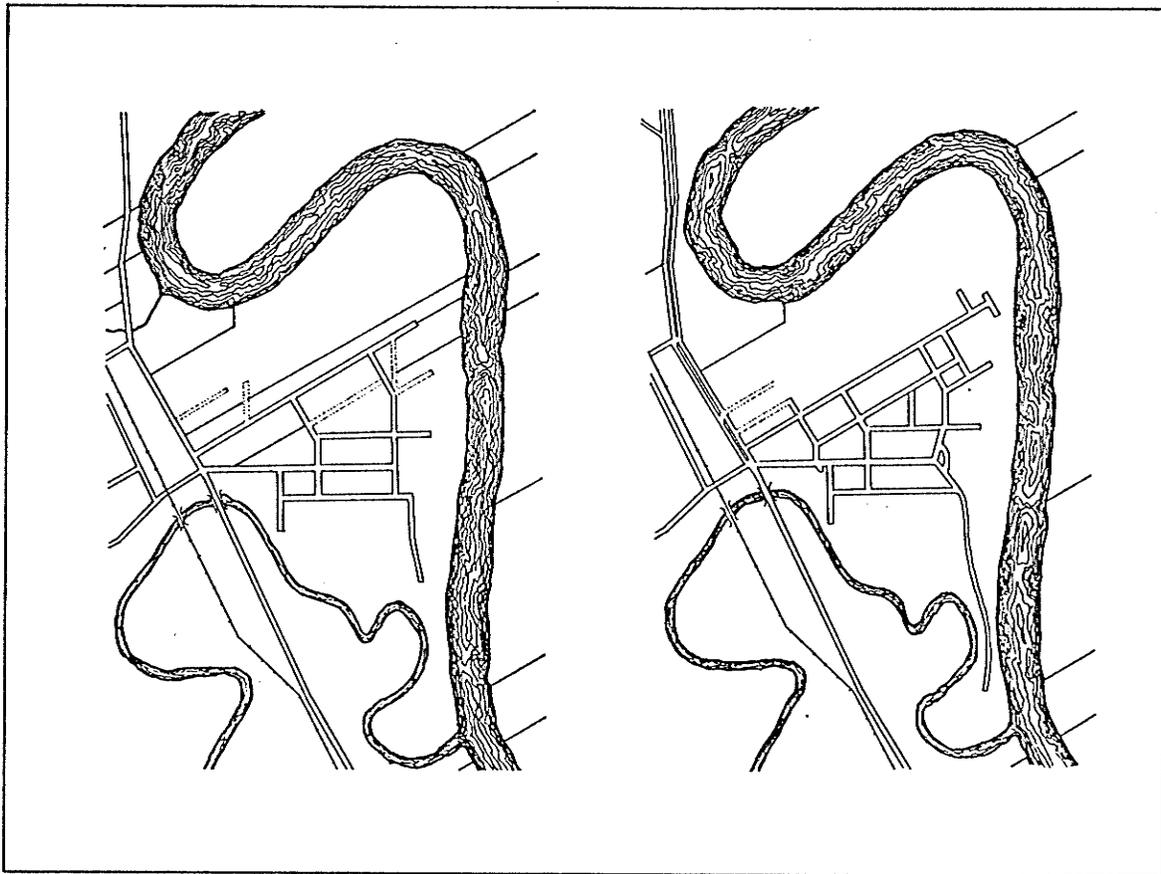
The reaction to the execution in Greater Canada was extreme outrage, which was fueled by Dr. Schultz's anti-Catholic and anti-French intolerance. The growing reaction and political pressure caused the Prime Minister to send an army of occupation to the Red River under the direction of Col. Garnet Wolseley. Subsequent to the dispatch of the military forces, a delegation was set by the provisional government to negotiate the terms of Manitoba entering confederation. The delegation consisted of Alfred Scott, Father Joseph Richot, and John Black, who all were arrested on their arrival in Canada and forced to answer to charges of murder in the Thomas Scott case. However, after much persistence and persuasion on the part of Father Richot the charges were dropped and Canada was persuaded to agree to the list of rights drawn up by the provisional government. This list of rights was incorporated into the Manitoba Act of 1870.

ST. NORBERT AFTER 1870

The St. Norbert landscape evolved significantly after 1870, as land ownership began to change and new settlers began to move into the Red River district. Many of the Metis settlers in St. Norbert began to leave, selling their lands to newly arriving French Canadians from Quebec. Other Metis abandoned their lands outright, leaving them to be occupied by any settler who would care to take them over. As a result the cultural makeup of the community began to change, shifting away from its dominant Metis past to a mixed racial community still dominated by French and Metis.

The Metis who left the St. Norbert area did so in response to the impending settlement of the region, and for the elusive buffalo hunt which had been the essence of their being for a generation. The resumption of the buffalo hunt and the dream of this presettlement lifestyle was however doomed, as the buffalo had almost all been eliminated from the prairies by this time. The landscape was no longer the wild open space that it had once been, because the fur trade, settlement, and the actions of man had significantly altered, tamed and transformed this wilderness.

The St. Norbert landscape although significantly altered through its initial settlement did not dramatically change for a very long period of time. Except for the inclusion of a number of new homes, minor alterations in the road network and some technological impacts, the community was almost constant.



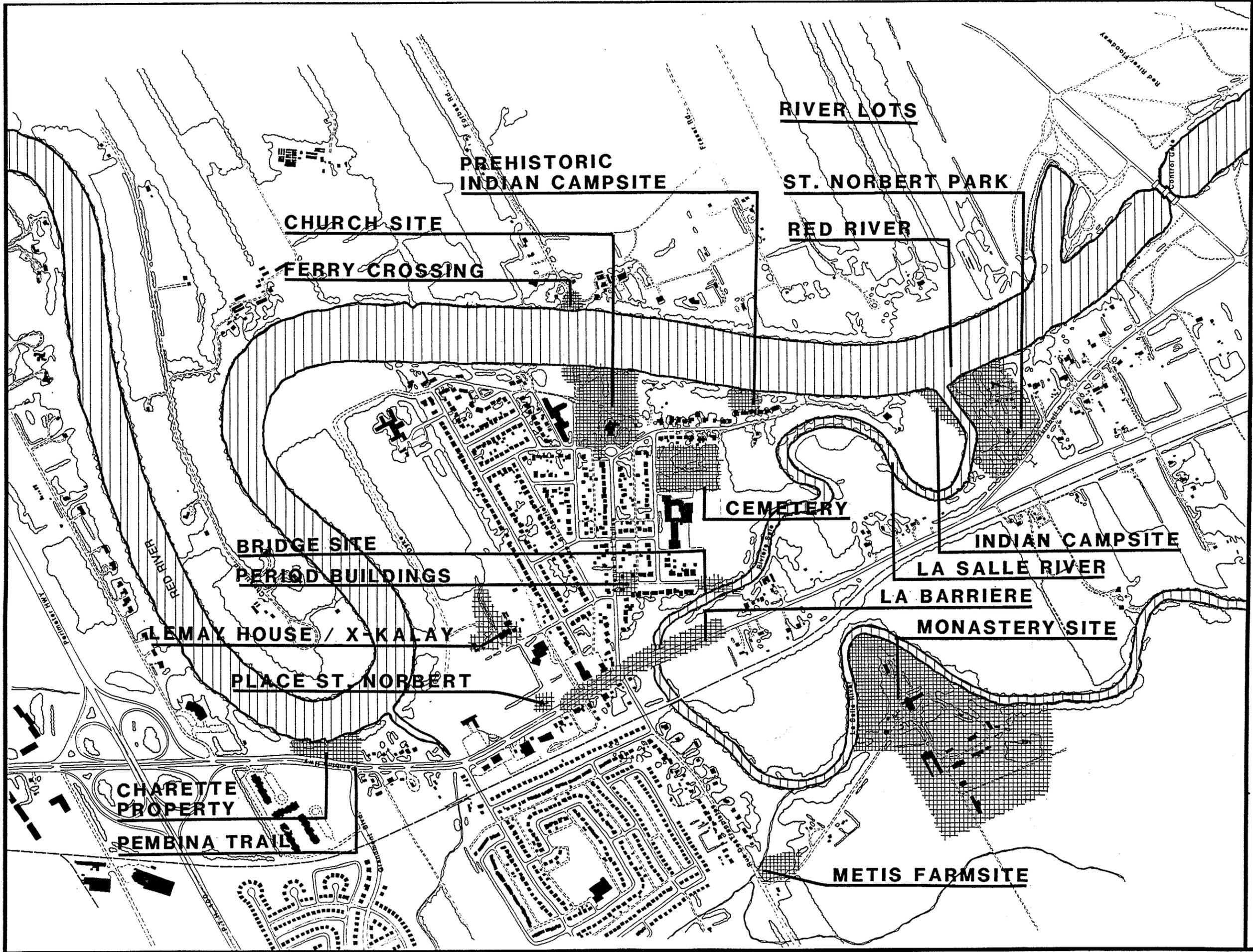
ST NORBERT DEVELOPMENT C. 1917 AND C. 1980

Figure 20

The parish remained as a agricultural settlement with a few minor retail and service facilities. The technological impacts consisted of the railway, telephone poles, electrical service, boat transportation, and the plow. All of these had various degrees of impact upon the landscape, defining place and eliciting further change and development.

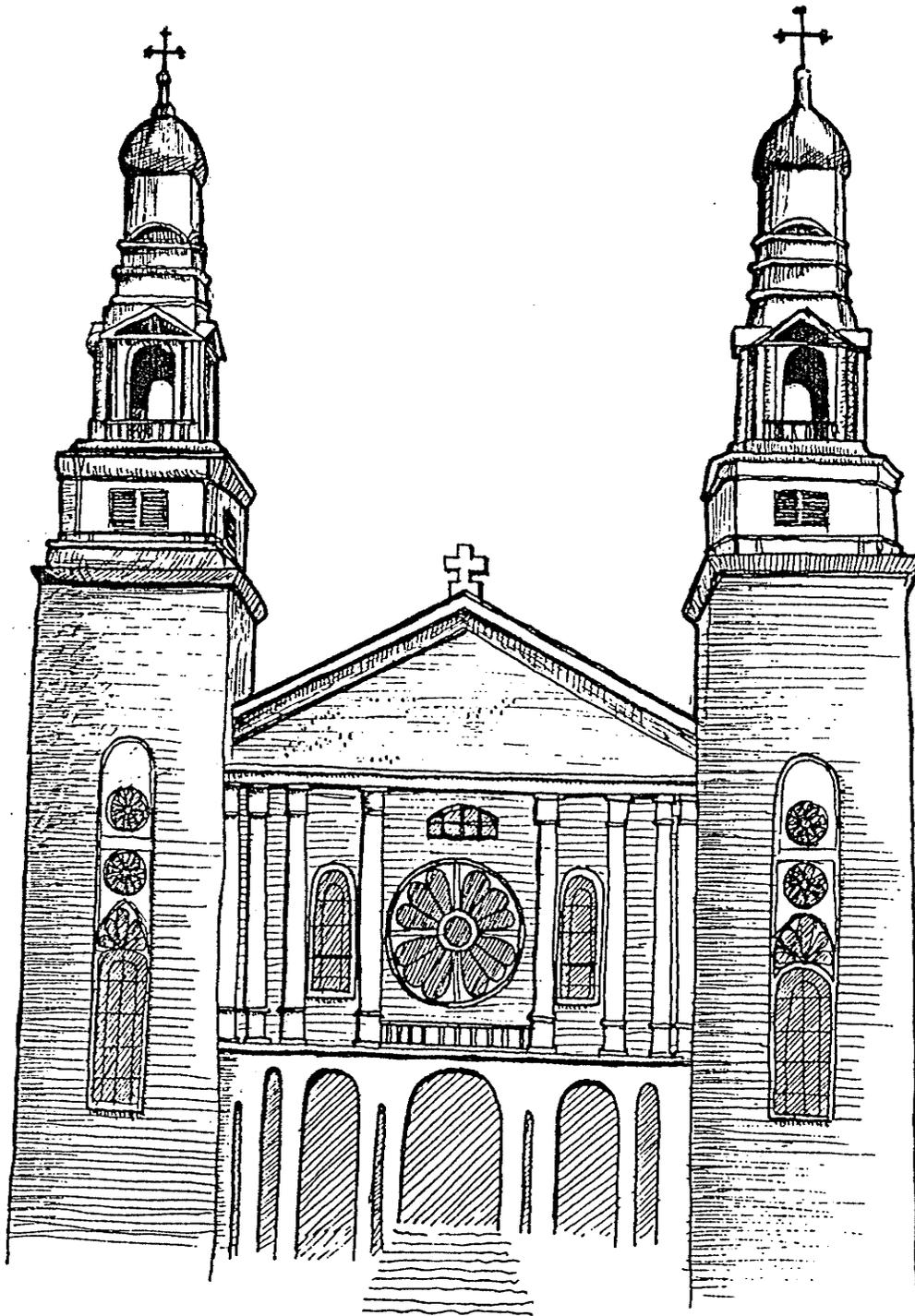
The agrarian French Canadian town remained the Image of St. Norbert well into the 1950s, primarily due to the constant flooding of the area and the lack of basic amenities. With the installation of basic sewer and water service in the mid 1950s, the community saw a great increase in the population. With the protection provided by the construction of the

Winnipeg floodway in the 1960s, the community began to see a boom in population growth and a great number of new homes being constructed. The initial boom subsided as development interest waned through the early and mid 1970s. The later years of the 1970s saw a renewed interest in the community with additional residential areas being developed. Residential projects such as Richmond Lakes and Grandmont Park were established within the community. Smaller and larger pending development projects have since placed enormous pressure on the community for further residential development. Many of these project have proposed the development of the lands adjacent to and abutting the river corridors. This has served to jeopardize the river, its natural setting, the surrounding forest and many of the associated natural and historic resources of the region.



ST. NORBERT HISTORIC RESOURCES
 AN EXAMINATION OF PLACE

THE ST. NORBERT RIVER CORRIDORS AN EXAMINATION OF PLACE



**RESOURCE INVENTORY
AND ANALYSIS**

INTRODUCTION

Associated with the St. Norbert landscape are a number of historic, recreational, cultural, and physical features. These individual components have overlaid the natural landscape and serve to define a mosaic of place. To aid in the explanation of the place making characteristics of this site, each of these these features have been examined individually to allow an assessment of their significance. The associated maps depict the location of these features and are accompanied with a description of the resource.

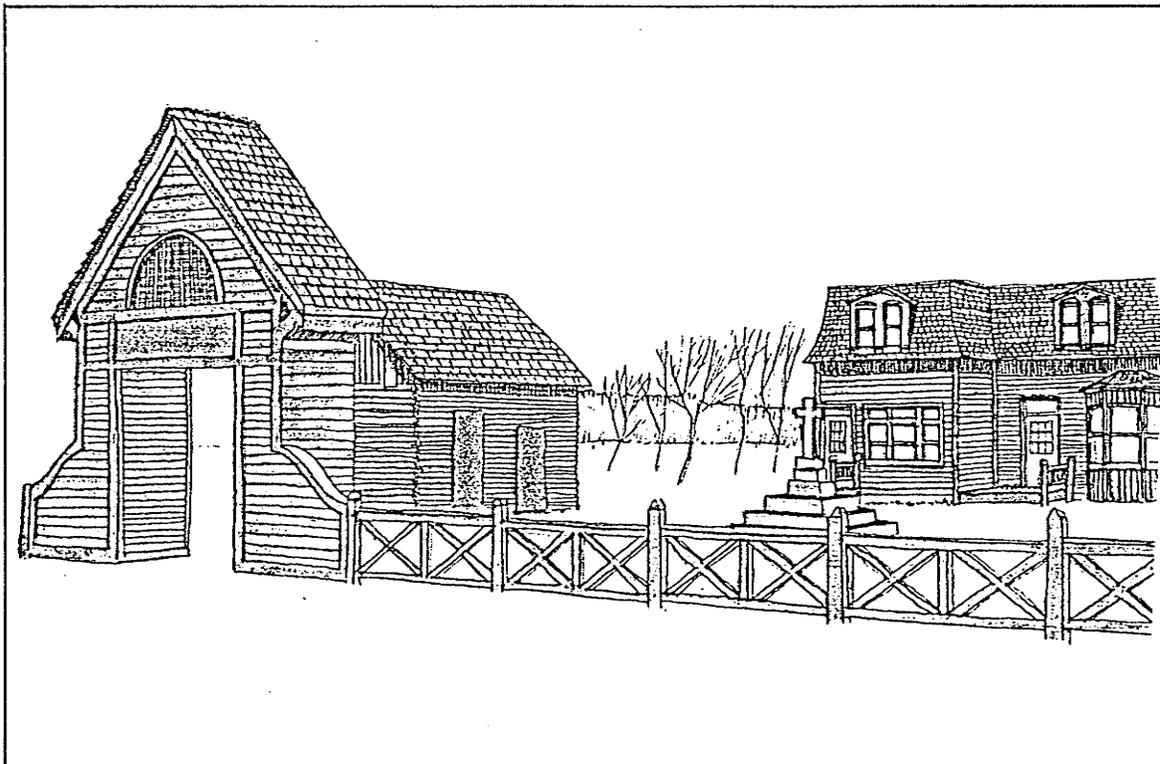
HISTORIC RESOURCES

For the purpose of this study, the term historic resource refers to the work of man that is significant for its historic value. It includes such things as historic architecture, historic sites, cemeteries, and archaeological sites.

The community of St. Norbert has had a long gradual period of development, extending from the early historic period. Its settlement is reported to have started before the Red River Colony, however did not keep pace with the associated development at Winnipeg. This scenario has remained consistent throughout the immediate history, with Winnipeg emerging as a city and St. Norbert developing into a small community. Today St. Norbert retains its distinctive community feel and appearance through this slow change and development. As such it has retained much of its early character, and historic resources. The following is an inventory and analysis of the historic resources associated with St. Norbert river corridors.

PLACE ST. NORBERT

The site is located adjacent to Pembina Highway and represents a collection of turn-of-the-century buildings. These structures form a area for the interpretation of these period French and Metis structures. The site is not historically significant in and of itself, however it contains a number of structures of historic importance.



PLACE ST. NORBERT WITH ITS HISTORIC STRUCTURES

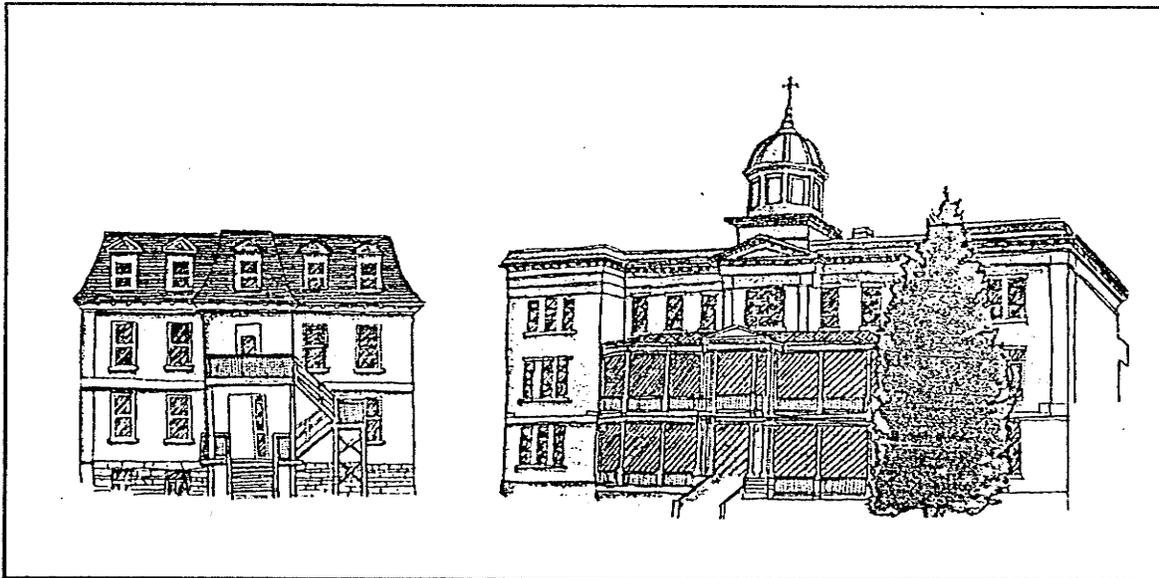
Figure 21

2. LEMAY HOUSE / X - KALAY ORPHANAGE

Lemay House was originally built by Joseph Lemay, a local business man, government official and politician who settled in St. Norbert in about 1870. The house was apparently constructed out of local timber sawn from Lemay's mill established in St. Norbert in 1871. The house was occupied by Lemay and his family until his death in 1892, after which his wife and children remained. The house then fell into the

care of Father Ritchot who donated the house and its buildings to the Sisters of Mercy in 1903, who converted the structure into an orphanage called the Bethlehem Foundling Asylum. In 1911 a large building was constructed to the north and joined to the original house by a connecting passage.

The Oblate Fathers took possession of the complex in 1948 staying until about 1954. The house and orphanage remain as prominent features within the community and as a reminder of the role of religious orders in St. Norbert development. They are some of the only structures connected with these religious orders, and contribute to the identity of St. Norbert. The orphanage building is of landmark quality, it's red dome a visual identification symbol to the community and a reminder of its past.



LEMAY HOUSE AND THE X - KALAY ORPHANAGE

Figure 22

3. PERIOD BUILDINGS

A number of remnant buildings mark the previous center of the community, which developed in relationship to the increased

importance of the Pembina trail. These buildings include the Banque d'Hochelaga at 932 Rue de l'Eglise, a house at 931 Rue de l'Eglise and two homes on Campeau.

The Banque d'Hochelaga was constructed out of brick and masonry in about 1915, and represents a period of growth in St. Norbert in which the community developed away from the river to form a commercial center. The new commercial development and a population threshold invited banking interests into the community which brought more significant buildings and added an air of opulence to the emerging community.

931 Rue de l'Eglise is reputed as one of the oldest remaining houses in St. Norbert. It was constructed in approximately 1900, and served as a butcher shop and grocery store, now only emulating the past commercial core. The remaining homes on Campeau are a visual reminder of the significance of this area as a developing core. Their further historical significance is however unknown.

SITE OF OLD BRIDGE

The Pembina Trail turned at ST. Norbert and crossed the La Salle at a small bridge that provided a continuous overland route for Red River carts that transported goods and furs to and from St. Paul Minnesota. There is little evidence of this structure that once played an important role in maintaining traffic on the Pembina Trail across the La Salle River.

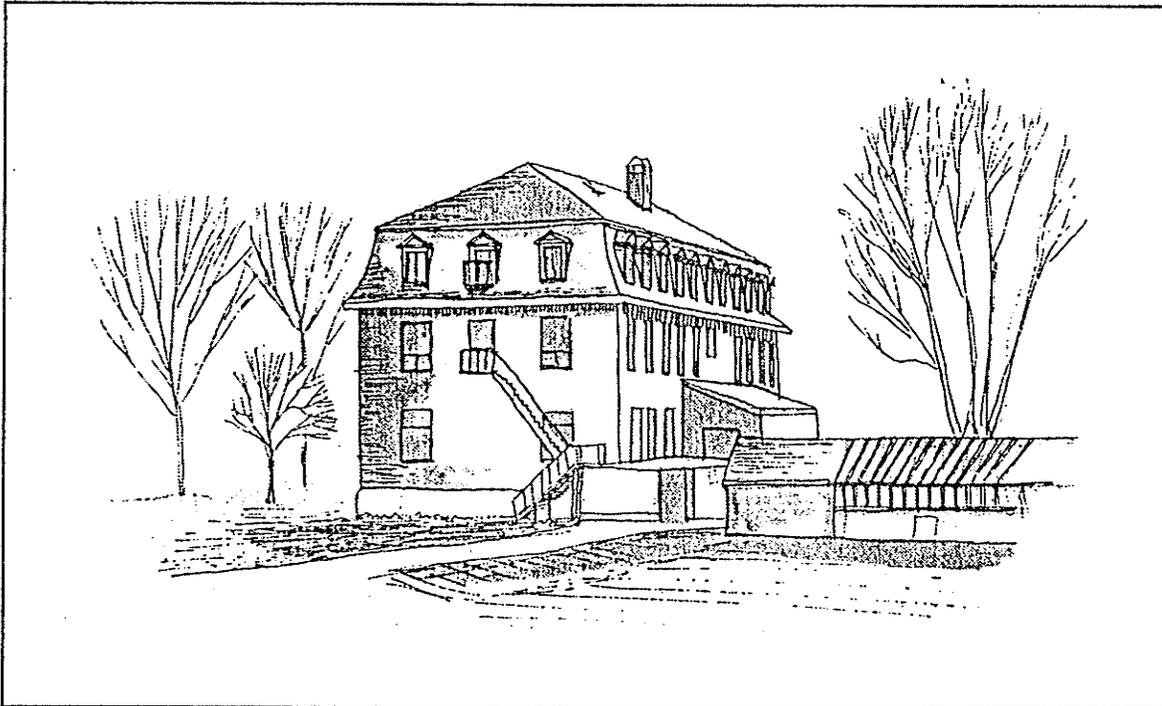
LA BARRIERE

This area represents the general historic location of the Louis Riel uprising which prevented Lieutenant - Governor

William Mac Dougall and his entourage from entering the Red River colony. The event and its participants are significant to national history as they negotiated in part, Manitoba's terms for entering confederation.

TRAPPIST MONASTERY SITE - GUEST HOUSE

One of the few remaining structures on the Monastery Site is the guest house constructed by Trappist Monks. This cultural artifact is a reminder of the religious orders that played a significant role in development of the community. The structure remains extant and serviceable, and is architecturally significant, displaying the uncommon Mansard roof configuration.



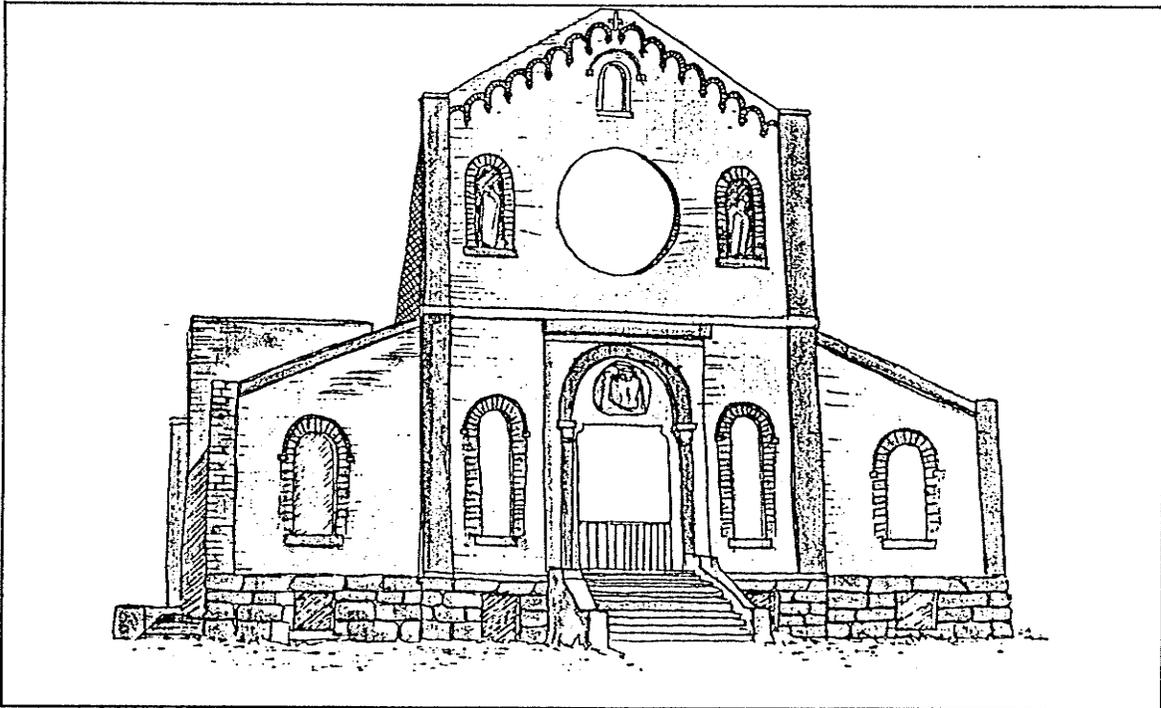
THE TRAPPIST GUEST HOUSE

Figure 23

THE TRAPPIST MONASTERY

The monastery was established in 1892 as "Notre Dame des Prairies" on land set aside for the institution by Father

Ritchot. The site allowed the monks to pursue a cloistered life, dividing their existence between religious studies and animal husbandry. The extensive monastery grounds allowed the monks to build fields, gardens, and established cheese making and honey processing facilities. The first house was constructed in about 1892 to aid in the setting of the religious order. A church was constructed by 1903 with a residential addition added in 1905. These were followed by a new retreat house in 1912 (which still stands today), and other out buildings including several barns, a cheese house, chicken coop, work buildings, sheds, and later a grotto to aid in their contemplative life. The site is a collection of highly significant cultural resources depicting the life and existence of this rare religious order in the community of St. Norbert. The area contains many ruins and extant features which have been interpreted for visitor information and enjoyment within the content of a Provincial Park.

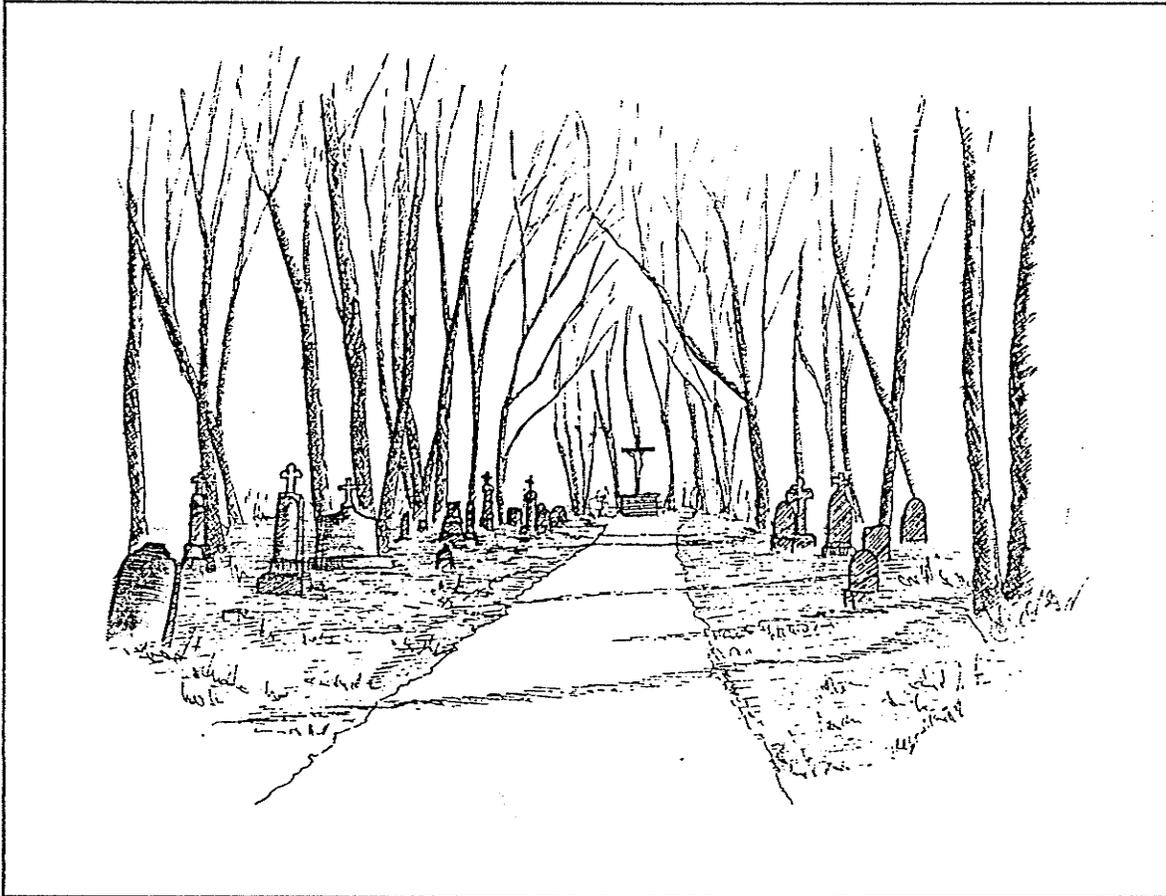


REMAINS OF THE "NOTRE DAME DES PRAIRIES"

Figure 24

ST. NORBERT CEMETERY

The cemetery in St. Norbert provides a physical record of the forefathers of the region. Many of the names are typically French and Metis, depicting this part of the cultural heritage of this region. Some of the grave sites date back to the mid 1800's, which no doubt mark some of final resting places of the founders of the community.



ST. NORBERT CEMETERY - THE RESTING PLACE OF MANY SETTLERS

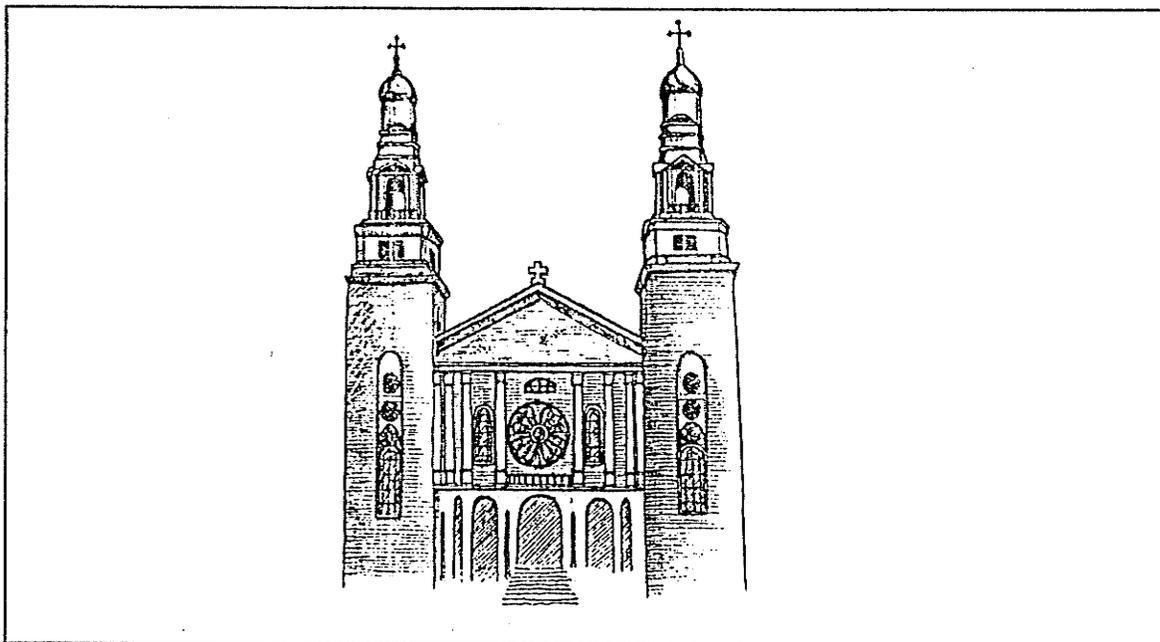
Figure 25

THE CHURCH SITE

The site of the St. Norbert Parish Church is quite significant, as a number of historic events and artifacts are to be found here. The Church structure is the second of two successive churches constructed on this site. The first was built in about 1869 under the direction of Bishop Tache from

the Roman Catholic Church in St. Boniface.

The second, and present Church was erected in 1937 and stands as a significant monument within the community. The Church currently stands at the terminus of Rue de l'Eglise, providing a visual focus to the entry of the community. The grounds which surround this Church are reported to be the burial sites of some 1500 Metis settlers which founded this community.



ST. NORBERT PARISH CHURCH

Figure 26

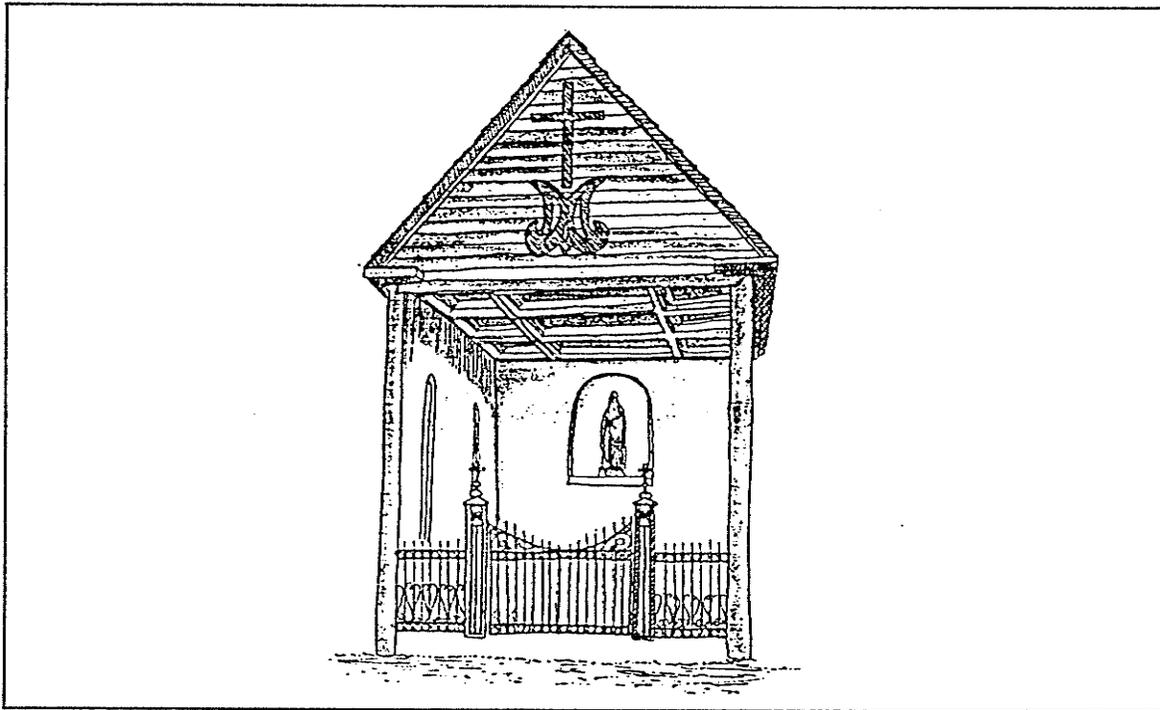
THE GREY NUN'S CONVENT (CHURCH SITE)

In approximately the late 1850's , the first of a serious of convents was constructed on the site adjacent to the parish church. A succession of four different structures were apparently built to facilitate the educational and religious requirements of the enlarged populations in St. Norbert. The final convent was a 5 story structure with a mansard roof, constructed in approximately 1905. The structure remained in service until the late 1930s when it was converted into a

senior citizen's home and then eventually demolished in 1988.

THE CHAPEL OF OUR LADY OF HELP (CHURCH SITE)

This small building is located across from the current church, and is an outdoor/open air chapel. It was apparently constructed in 1872 under the direction of Father Richot, with a painted ceiling by Constantin Tauffen Banch and a paper mache statue made by Sister Gosselin. It stands as a locally significant and extraordinary Catholic religious monument and artifact.



THE CHAPEL OF OUR LADY OF HELP

Figure 27

THE RECTORY (CHURCH SITE)

The original rectory was built in approximately 1883 and has since undergone considerable reconstruction and renovations. It originally stood adjacent to the church as an additional religious artifact but has since been demolished and replaced by a senior citizens complex.

THE MONUMENT (CHURCH SITE)

At the base of the church has been erected a cut stone monument depicting the roles of Louis Riel and Father Ritchot in the Founding of the Province of Manitoba. The monument illustrates the area and describes the events leading to the Manitoba entering confederation and its role that Riel and his contemporaries played in this nationally significant event.

FERRY CROSSING

The area adjacent to the parish church in St. Norbert was the location of a ferry crossing that connected the emerging community of St. Norbert with the St. Vital area. It was reported to be used until the 1940s. As a site, it represents a time period where the river was accessible to the community as a resource, and used for transportation purposes.

ST. NORBERT HISTORIC PARK

St. Norbert park is a developed visitor attraction of Franco-Manitoban dwellings of the Red River Settlement Period. Located on the site are the Turrene house and the Bohe'mier House, each with a unique history. The Turrene house was the home of Joseph Turrene, an early St. Boniface Mayor. The house was built in approximately 1870 by the family using local materials, and now stands as a period building of the early Franco-Manitoban style. The Bohe'mier house is also an example of turn of the century Franco-Manitoban domestic architecture. It was constructed by the Bohe'mier family in about 1890 upon their arrival in

the "Riviere Sale" area.

INDIAN CAMPSITE

The junction of the Red and La Salle Rivers has historically been a site of Indian occupation for a considerable length of time. The area has been investigated partially and is known as a location of Indian camps from the late prehistoric period. Prehistoric Pottery has been found representing the Blackduck culture, of approximately 1200 years old.

PEMBINA TRAIL

The Pembina Trail was originally a buffalo path that ran adjacent to the Red River. It later emerged as an overland route from Fort Garry at the heart of the Red River Community to St. Paul Minnesota at the head of the navigable Mississippi River. The significance of this route increased with the development of the two communities and with prospering trade, which resulted in the trail became formalized into a road. It supported the heavy ox carts which transported furs, trade goods and supplies between the two communities. Often these ox carts were owned and operated by St. Norbert Metis involved in transporting goods and provisioning the fur trade.

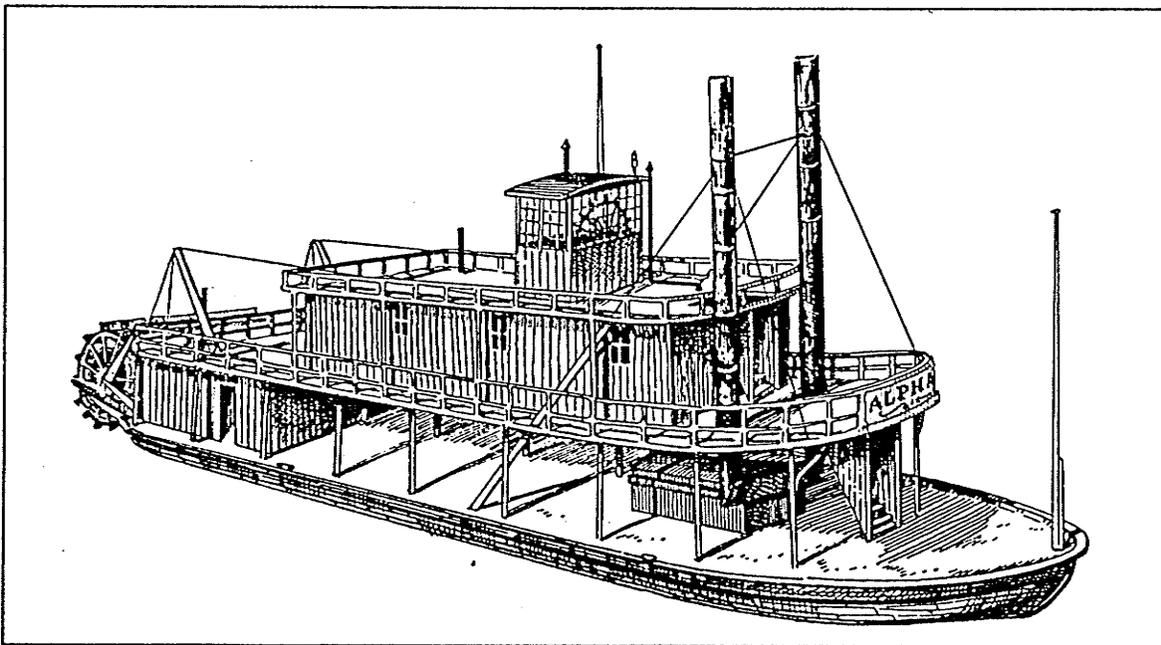
FRENCH RIVER LOT SYSTEM

As a historic feature, some of the original long lots laid out in settling this landscape are still evident. Originally these farm lots were surveyed to best take advantage of the site resources; from the river and its woodlots, to the higher lands and their grazing areas. As agriculture was

initiated, fields were plowed, trees clear, fences built and roads constructed, all in relationship to these defined lot lines. Some of these historic events are still evident in the landscape in the layout of residential lots, the configuration of roads and by remnant tree stands that once bordered these long lots.

THE RED AND LA SALLE RIVERS

As historic resources these water channels are of great significance. They transported the European explorers across new lands, provided boundaries to Indian territories, and served for generations as a point for gathering and settlement. They served as transportation routes, for York Boats and Paddlewheel Steamers traveling between St. Paul and the Red River Settlement. They have also been the instrument of destruction by inundating vast areas with flood waters for thousands of years. The Red and La Salle are also part of ancient river systems, emerging out of the last great ice age



THE RED RIVER WAS A MAJOR ROUTE FOR BOAT TRAFFIC TO THE U.S.

as small remnants of larger glacial outwash channels. Early man utilized the rivers for transportation and for many centuries camped within the protective forests that border these rivers. These rivers are once again emerging as important resources and feature connected with a desire to preserve and develop natural areas for recreational purposes.

PREHISTORIC INDIAN CAMPS

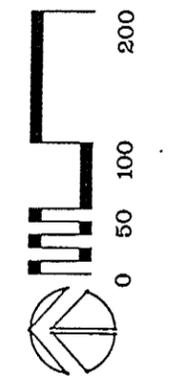
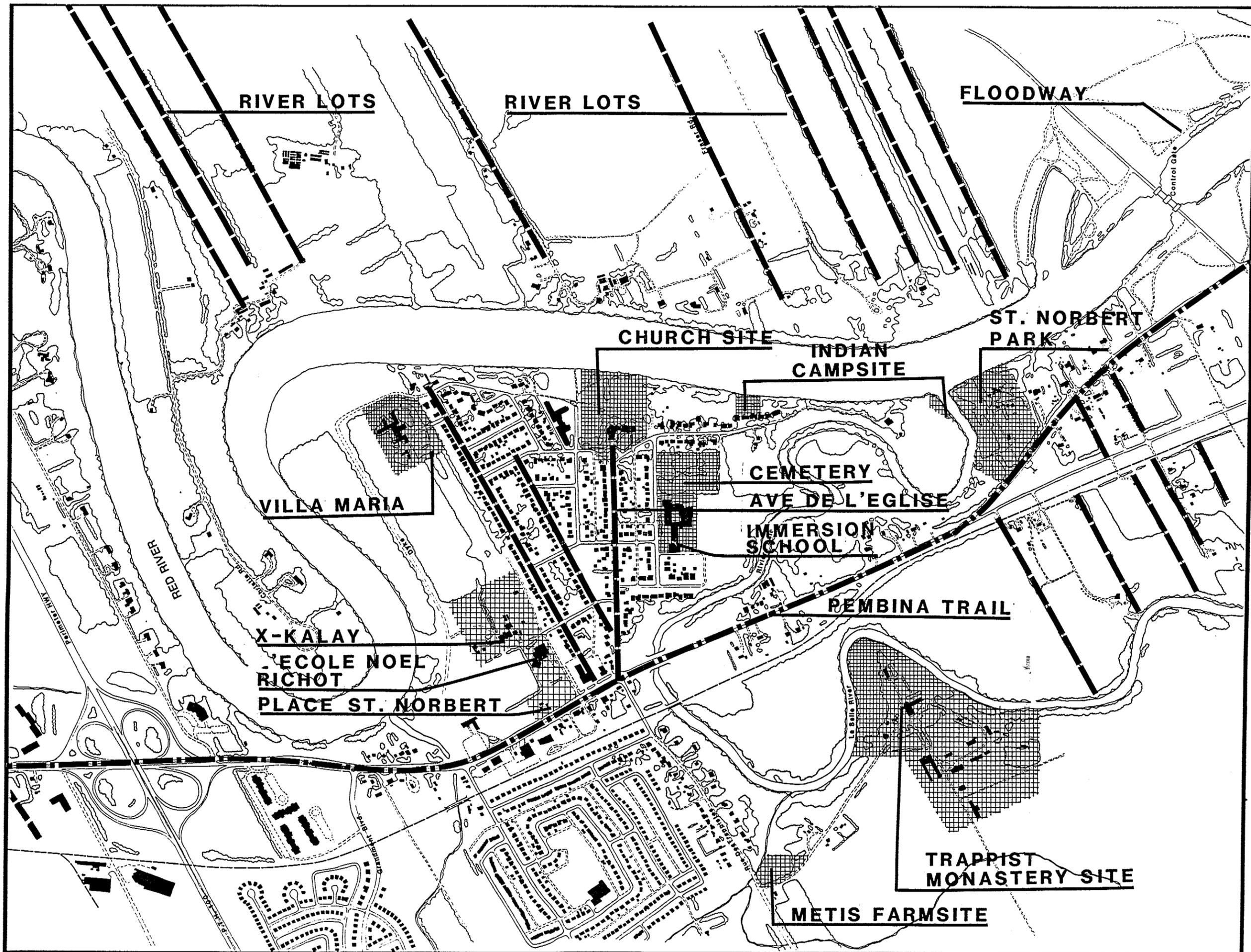
The site occupies the back yard of a developed residential property, and is a late Prehistoric Indian camp. It has been partially excavated by the University of Manitoba Field Schools, and is recognized as a significant site by the City of Winnipeg.

METIS FARMSTEAD

A Metis farmstead was located at Rue Du Monastere St. Norbert. The site contains prehistoric archaeological and historic archaeological evidence of a Metis Farmstead. The site has been partially excavated in 1979, and is a recognized resource connected to the Metis culture.

THE CHARETTE HOUSE SITE

The Charette house is believed to have been the first private residence in the province of Manitoba, and was constructed by Baptiste Charette on river lot number 90 adjacent what is now the St. Norbert Community Club. The house apparently served as a shelter for colonists en route to Pembina, and also served as a trading post for Hudson Bay Company supplies. It was demolished in 1952 after suffering massive damage during the 1950 flood of the St. Norbert area.



ST. NORBERT CULTURAL RESOURCES
 AN EXAMINATION OF PLACE

CULTURAL RESOURCES

Associated with the St. Norbert River corridors are a number of features which represent important links to the cultures that have over generations utilized this landscape. Their actions in working and living in this area have produced a number of visible manifestations which constitute cultural meaning. It is imperative to identify these components which provide us with an understanding of the site and aid in development planning.

FLOODWAY AND CONTROL GATE

The structure and associated floodway was constructed during the 1960s as a protective measure for the City of Winnipeg against the seasonal flooding of the Red River.

The floodway and its appurtenances remains as one of the only North American examples of this type of engineering technology to be utilized against the effects of an inland water system. It depicts man's response to the environment and his manipulation of the natural landscape.

L'ECOLE NOEL RICHOT

This educational facility remains a strong part of the community. It stands as one of the French cultural institutions within this community.

Depicts the French Catholic values that are still prominent within the community and the strong ties to this cultural past.

PLACE ST. NORBERT

The site represents a collection of turn-of-the-century French Metis buildings and structures enclosed by an rustic fence and ornate gate in the form of a courtyard.

These structures are representative examples of French/Metis Vernacular architecture. As period artifacts they aid in depicting the life and times of the settlers of this area.

PREMBINA TRAIL

A pre-settlement buffalo path utilized by early traders and hunters, formalized into a trail with the advent of the famous Red River Cart.

The trail became associated with the Metis and traders who used it as a overland route for the transportation of furs and goods between the Red River settlements and St. Paul Minnesota. The Metis also made extensive use of the trail during buffalo hunting excursions which provisioned the fur trade.

X - KALAY ORPHANAGE

This large, turn-of-the-century landmark is a significant and prominent part of the community. Its red dome provides a orientation point and identity to this landscape by its scale and visibility.

The significance of this building lies in its identity to the community as a landmark and its architectural significance as a distinctive one-of-a-kind structure relating to a number of religious orders.

METIS FARMSITE

The former location of a Metis farm has been identified on this site. It has been partially explored archaeologically, with evidence suggesting a reasonably prototypical examples of early Metis agricultural practices were conducted on this location.

The site has the potential to yield some archaeological resources and evidence as to the early agricultural practices of the Metis. Culturally the site relates this landscape to some of its earlier use and its association to a different cultural group.

VILLA MARIA

This site and its associated buildings represents a Catholic religious retreat. It is one of a number of religious institutions within this small cultural landscape.

The site and its structures demonstrate the key role religion plays in the community and reflects the ongoing attitudes to and importance of religion in every day life.

THE ST. NORBERT CHURCH (ROMAN CATHOLIC)

The community church is the definitive landmark of the area. Its prominent location at the terminus of the main entry road into the community is symbolic of its prominent role.

The Church is a religious icon and an institution around which the community was built. It harkens back to the development of the community in which the Catholic Church played a significant role in community form.

THE FRENCH RIVER LOTS:

This system of land division was the earliest form of land tenure within the Red River valley relating back to European system of land holdings. It was transported in to the area from Eastern Canada, and ultimately from Europe, by the land surveyors who laid out the first land holding in this landscape.

These river lots are the earliest evidence of European settlement within the region, they relate to the period just after the time of the Selkirk Settlers. These lots are further significant due to the remnant evidence that remains which depicting their location within the landscape and their relationship to the French culture.

ST. NORBERT HISTORIC PARK.

This park setting represents a collection of early settlers homes, which have been restored and interpreted within an "outdoor museum" setting. It depicts the early French/Metis culture within the area through their domestic architecture. The park displays a number of buildings which are significant on the basis of being representative examples of early Red River architecture of the Franco-Manitoban style. The site upon which these buildings are located has no direct significance with the exception of the native groups that are known to have occupied this area. There is no extant or obvious evidence of their use of this site.

ST. NORBERT CEMETERY

This burial site includes the final resting places of many of the founding pioneers that settled this landscape. The names

on the gravestones and markers provide an indication of the cultural groups which have been associated with this cultural landscape.

AVENUE DE L'EGLISE

The orientation of this road to the St. Norbert Parish Church runs contrary to the community organization which relates to the French River Lot System.

The importance of this contrary orientation is the symbolic connotation that can be distilled by the strong physical relationship displayed to the church. This axial development relates directly to the role the church has played in the community.

ST. NORBERT IMMERSION SCHOOL

The French cultural identity relating to the educational institutions. This school stands as another component of the Franco-Manitoban institutions within this cultural landscape. The school is reflective of the community desire to maintain their distinctive cultural identity within a English region. The presence of this facility within this cultural landscape is reflective of the cultural identity and values of this community.

TRAPPIST MONASTERY

The monastery and its site is connected to the French Trappist Monks, that very early in the community's development settled in the area due to its isolation qualities and dominant French/ Metis population.

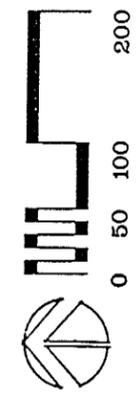
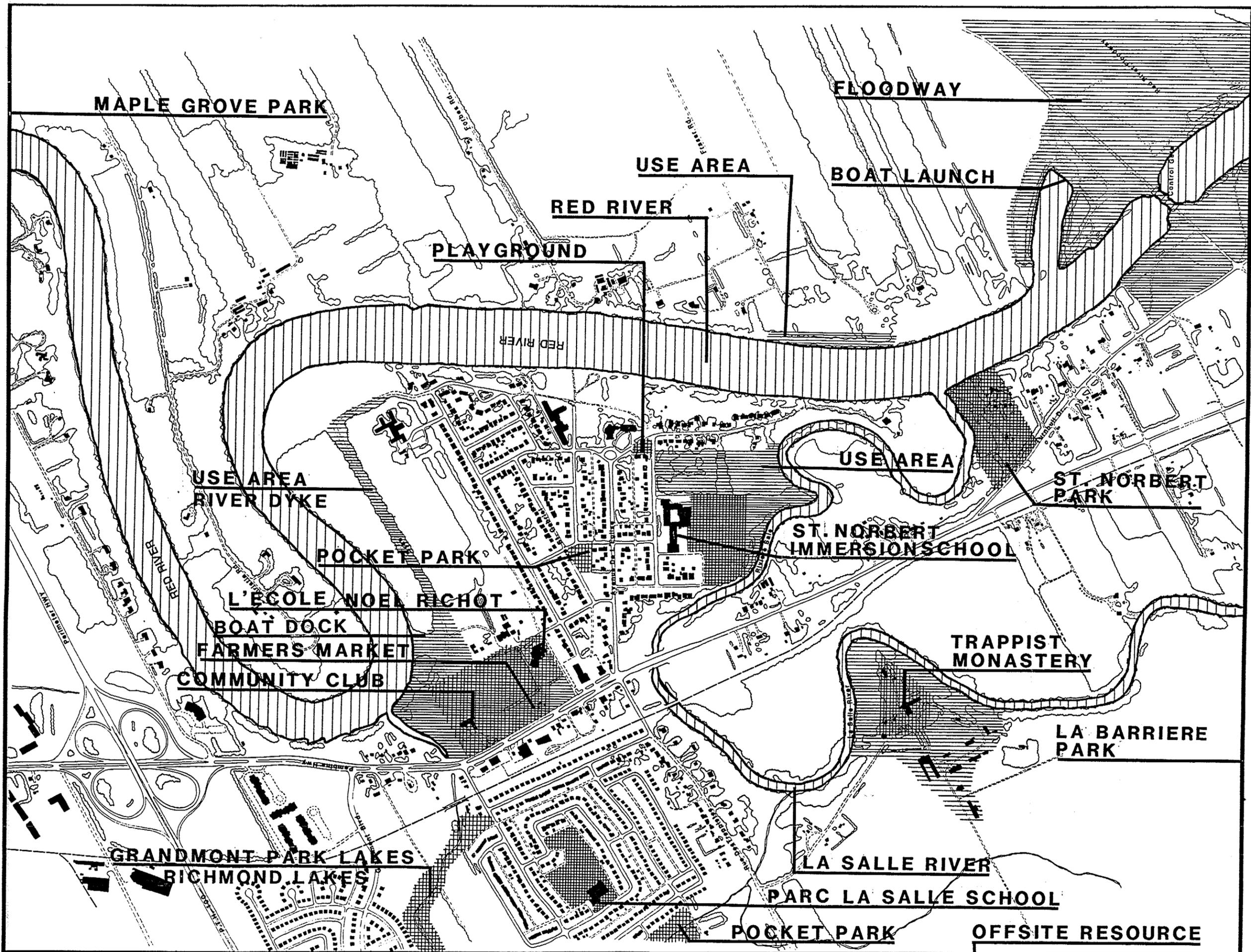
The site is significant due to its connection to this rare

order of Monks that inhabited this location for a prolonged period of time. They developed the site with a number of buildings, some of which are still extant and serviceable. The site has been developed as a park, interpreting the life and times of this religious order, and remains as one of the only sites connected to this order within Canada.

INDIAN CAMPSITES

Associated with the St. Norbert River corridors are at least two known sites of Indian occupation. The sites have been partially explored archaeologically with evidence of the blackduck culture found on the sites.

The significance of these sites are the connection of these river corridors to the Indian culture, and their occupation of this area for a prolonged period of time.



ST. NORBERT RECREATIONAL RESOURCES
 AN EXAMINATION OF PLACE

RECREATIONAL RESOURCES

FLOODWAY RECREATIONAL USE

With the construction of the control structure and floodway there has inadvertently been access provided to the water adjacent to the Red River. This has resulted in the utilization of this area by significant numbers of fisherman throughout the season. The banks of the control gate structure are further utilized recreationally as toboggan runs in winter, and sport vehicle runs throughout the year, bringing a ongoing unprogramed multiple season use to this area.

ACCESS POINT AND RECREATIONAL USE AREA

The opposing banks of the Red River are currently utilized as casual open space. These forested banks at the end of Fraser Road provide unprogramed open space, a fishing area and a floating dock. This area functions as a minor gathering point and a casual access area to the river.

PARC LA SALLE SCHOOL

This neighborhood recreational openspace provides localized field and recreational facilities on a shared usage basis with the school and surrounding neighborhood. It is utilized significantly by the school, and on a casual basis by residents who use of it's field facilities on weekends and evenings. It provides a recreational gathering space for residents on a casual and programmed basis.

ST. NORBERT EMERSON SCHOOL

The school's recreational facilities incorporate an organized system of sport fields and recreational facilities. These include baseball diamonds, hard surface court facilities, football and more casual use facilities including a fitness trail. This facility is an important programmed open space in the community, providing a focus for residents. This facility also provides a direct connection to the river and the numerous access trails that have become established through casual use of the river banks.

L'ECOLE NOEL RICHOT

The site provides a number of recreational facilities which include children's play areas, and sports field facilities which connect to other off site areas through a system of surfaced trails.

ST. NORBERT COMMUNITY CLUB

St. Norbert Community Club is a recreational focal point for the St. Norbert area and surrounding residential development. It contains baseball diamonds, soccer field, outdoor hockey rinks, catering to year round programmed sporting events. It involves league use of its facilities and weekend use of its hall for a variety of social occasions.

COMMUNITY POCKET PARK

This left over triangle of land provides a small greenspace to the immediate neighborhood. It incorporates some basic children's playground facilities and is intended to provide children with a recreational environment close to home. It

is utilized on a sporadic basis by parents with small children and by older school age children.

ST. NORBERT FARMER'S MARKET

This recent facility has been added adjacent to St. Norbert Place as a small market garden facility. The focus of this market takes advantage of high quality local produce available in summer. It also promotes the local culture and a thriving local craft industry by making facilities available for their use. These activities have proven to be a great summer time attraction for the people of St. Norbert.

OFFSITE RESOURCE

Adjacent to the Parc La Salle subdivision lies a boarding and riding facility for horses. The facility is operated as a commercial enterprise, utilizing surrounding fields and open spaces as riding and exercise areas for the boarded horses.

LA BARRIERE PARK

Within two miles distance of the junction of the La Salle and Red lies a provincial park facility. The park lies on the eastern edge of the La Salle River and incorporates passive recreational facilities which utilize the rich river bottom forests of the area as an attractive resource and setting to the park.

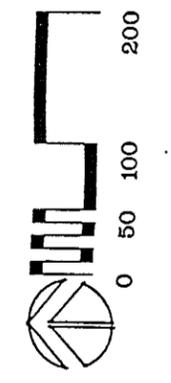
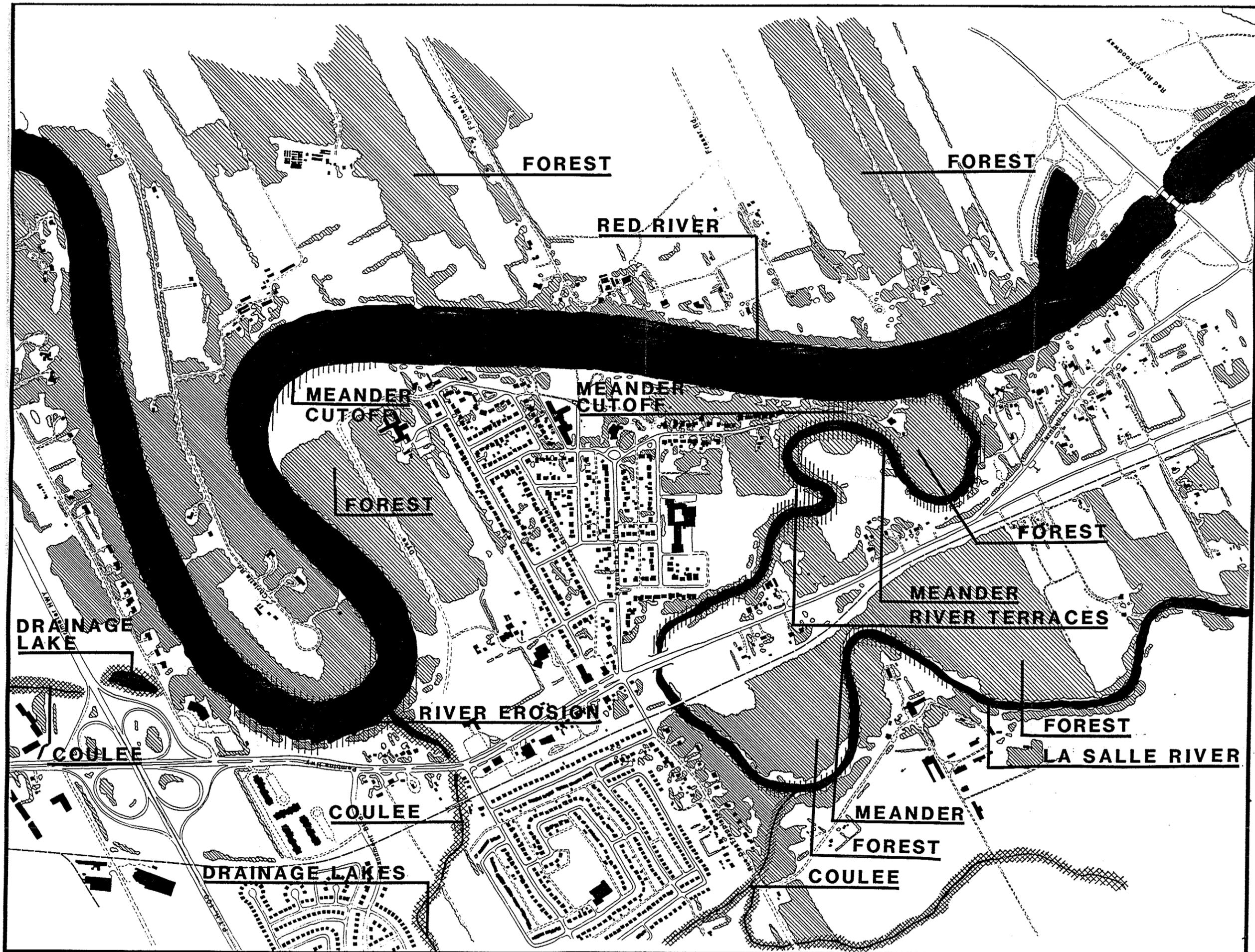
MAPLE GROVE PARK

This neighborhood facility provides a community focus to the east side of the Red River. Its use is of a passive nature utilizing the river bank setting as an attraction for the

community and a necessary greenspace. This facility provides a visual and physical access to the La Salle River corridor, utilizing its forested margins as the park focus.

BOAT ACCESS FACILITIES

At one location along the Red River is small boat launch facility which enables the water to be accessed by small boat craft. In an additional location is a docking areas which serves to contribute to the use of the rivers.



ST. NORBERT LANDSCAPE RESOURCES
 AN EXAMINATION OF PLACE

LANDSCAPE RESOURCES

RIVER BOTTOM FOREST

The forest associated with this site are one of the most distinctive features contributing to and defining the area as a special place. Large stands of forests occur in a number of areas adjacent to the Red and La Salle Rivers. In most areas the forest follows the margins of the channel forming a continuous edge to the river. In other locations the forests appear as irregularly shaped parcels left over from development. In some cases these stands of trees have been left in an almost pristine condition, reflecting a diverse river bottom forest habitat. Contained in these stands are representative communities of plant life and habitat areas for small birds and mammals. In a number of locations these forests are utilized by the University of Manitoba as habitat study areas.

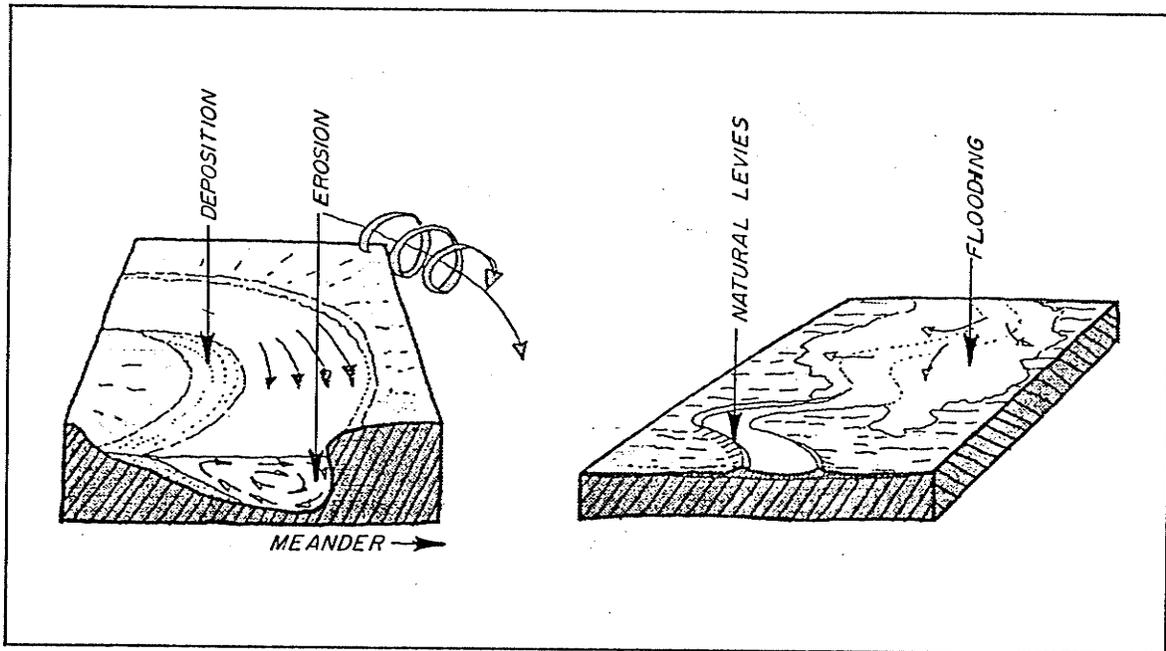


THE RIVER BOTTOM FORESTS OF ST. NORBERT

Figure 29

THE RED AND LA SALLE RIVERS

As physical elements of the region and significant agents of deposition, erosion and material transportation the rivers represent a significant portion of an environmental system responsible for the configuration the landscape. The Red and La Salle are typical of Prairie Rivers, having a low stream gradient and high sediment load causing them to slowly meander in the flood plain. In spring when the river flow is increased through run off and melting, causing the rivers to over flow their banks creating typical features known as natural levies. These depositional features are caused when flood waters, high in particulate matter overflow the main channel and deposit sediments as a result of a reduced velocity. Over time this process causes the banks of the river to become higher as a result of continued deposition. The meandering patterns of the river develop other landscape features includes point bars, meander cutoffs, oxbow lakes, backswamps and sandbars.

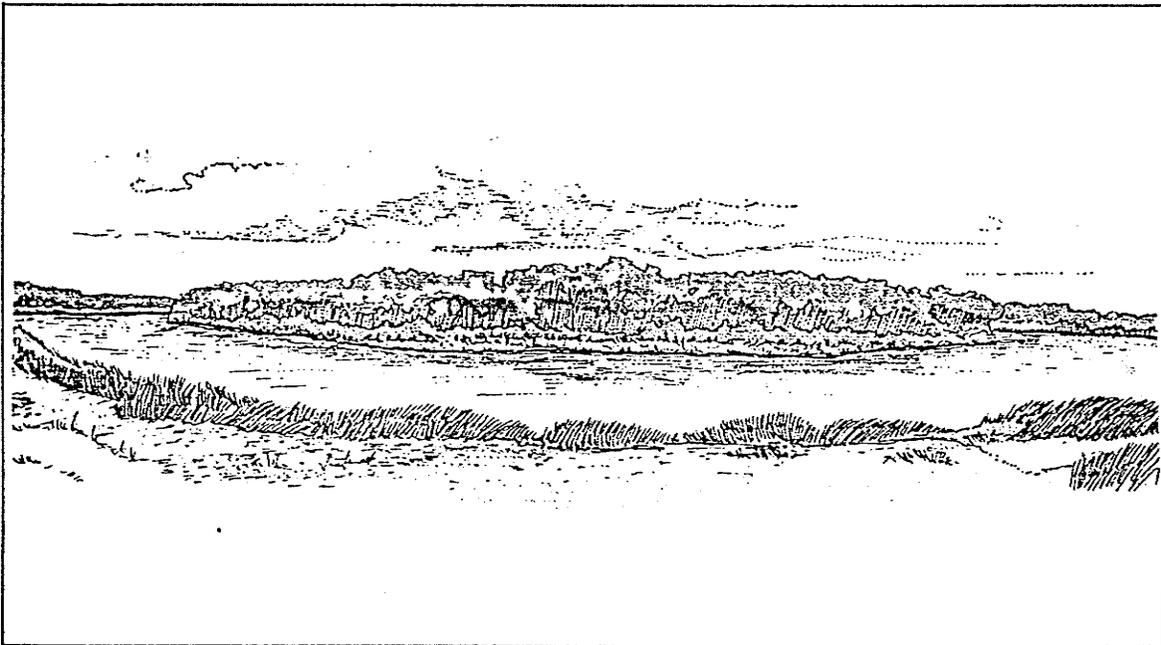


EROSION AND DEPOSITION CAUSE MOST FEATURES

Figure 30

AS VISUAL RESOURCES

The two rivers are still prominent features within the built-up areas of St. Norbert. They border the community making them an evident defining natural boundary, which is reinforced by the associated forest cover. They are visually significant forming a quality natural setting for community enjoyment. At Pembina Highway, the rivers provide an important visual link between the man made and natural environments. Wherever they are visible one is reminded of this important natural resource, and is able to witness its visual transition throughout the seasons. The combination of vegetation, shoreline configuration and wildlife, in conjunction with seasonal change and weather conditions provide a series of diverse and attractive visual experiences.

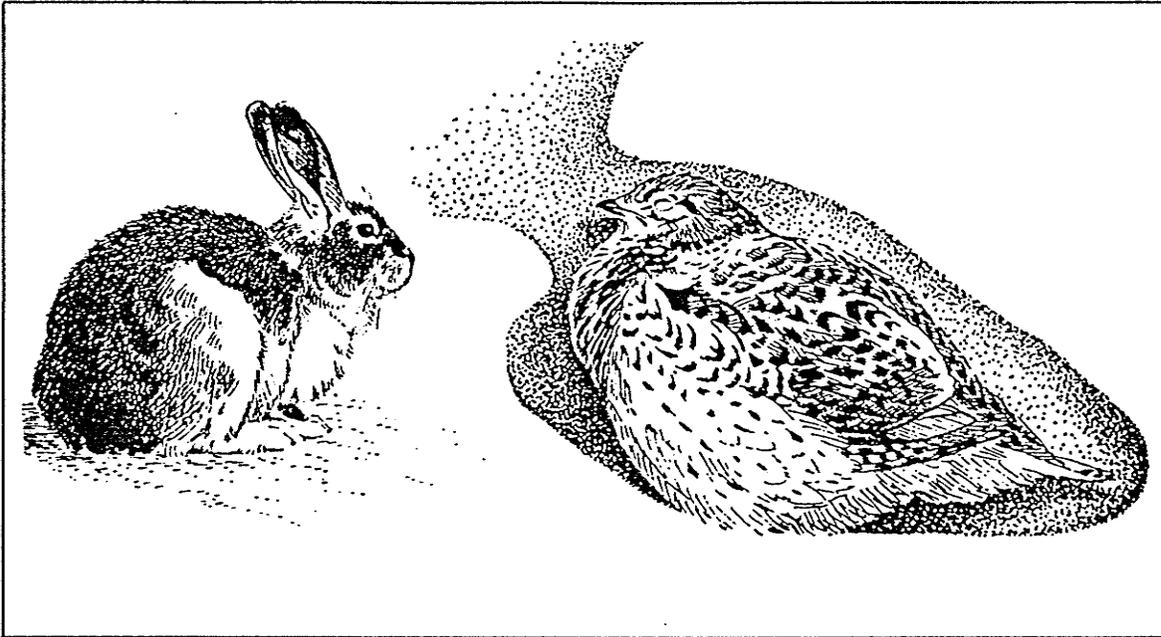


VIEW TO THE RED RIVER AT GRANDMONT BOULEVARD

Figure 31

The Red and La Salle Rivers are highly diverse aquatic environments supporting many species of fish, amphibians, insects and diverse plant life. The rivers also support

semi-aquatic communities within a narrow band marginal to the main channel. Within this area are numerous emergent and transitional vegetative species which provide habitat for many species of insects, birds species, amphibians, reptiles and smaller mammals.

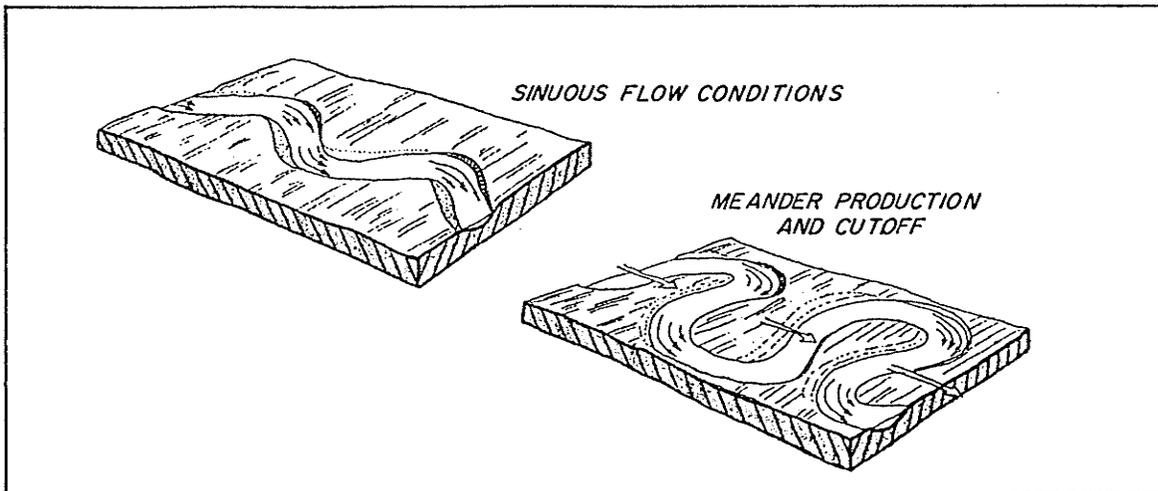


THE FORESTS SUPPORT MANY VARIETIES OF BIRDS AND MAMMALS

Figure 32

MEANDER CUTOFF

The dynamic flow conditions of the Red and La Salle Rivers are in the process of producing what is referred to as a meander cutoff. The sinuous pattern of water flow is turbulent at any bend in the river causing a gradual erosion and undercutting of the bank in this location. The erosion on one side of the bank is offset by deposition on the point bar causing a migration of the meander until ultimately it becomes larger and cuts through to form an oxbow lake. In this instance man's intervention has prolonged this dynamic river process through the construction of a dike road that has reduced the erosion along this narrow strip of land.

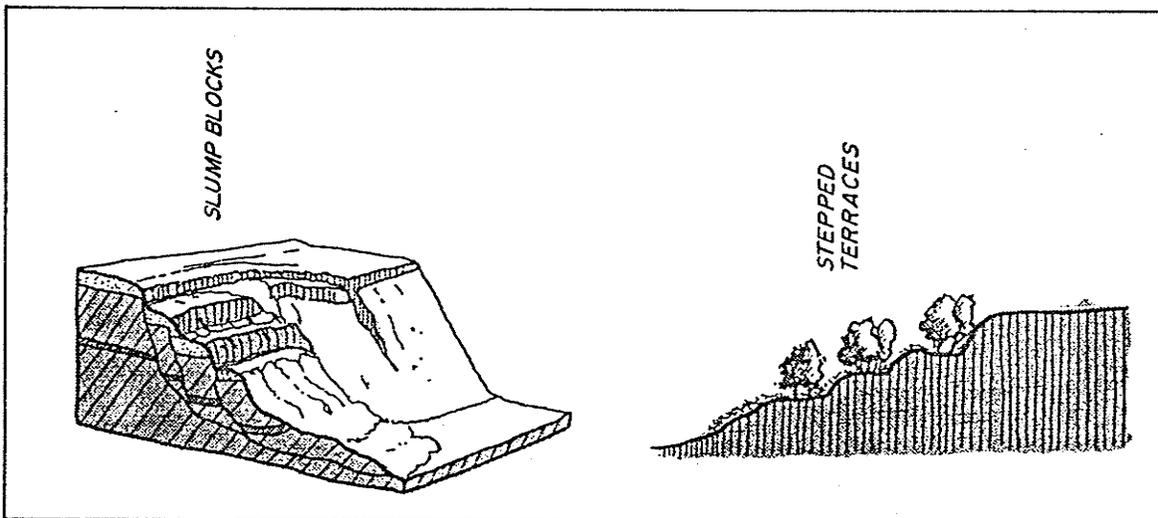


DEVELOPMENT OF MEANDERS AND MEANDER CUTOFFS

Figure 33

SLUMPING AND MASS WASTING

Adjacent to the La Salle and to a lesser extent, the Red are a number of landscape features and landforms associated with the fluvial processes of the river environment. These landscapes features are the principal erosional landforms of a prairie river system. They generally occur along the confining banks of the river, where the slope is undercut through toe erosion, to a steeper angle than the soil strength can support.



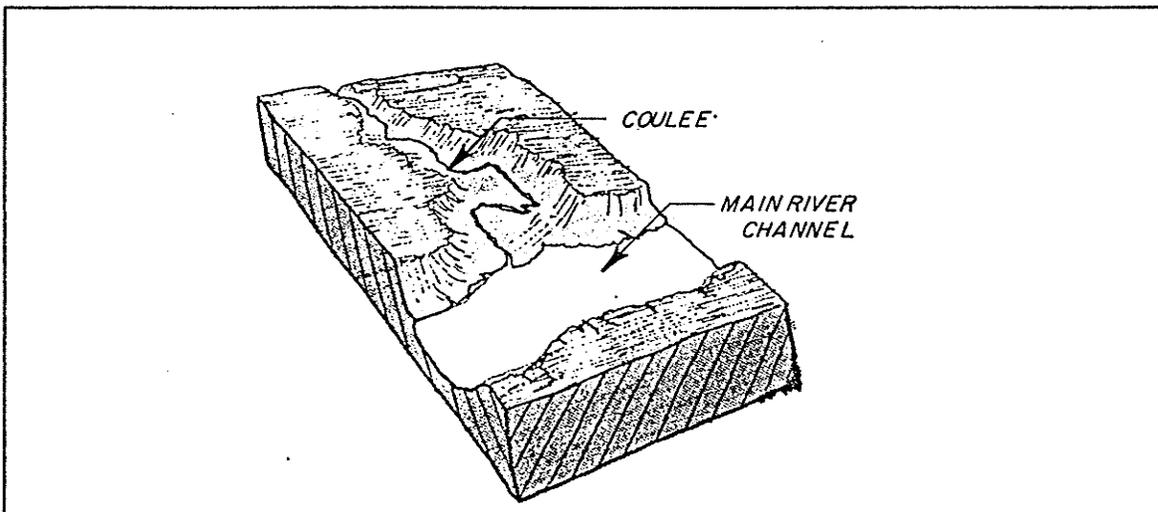
MASS WASTING AND TERRACES TYPICAL OF A FLUVIAL SYSTEM

Figure 34

When this occurs a continuous block of the bank slides in a curved motion toward the river channel. With the landslide of material moves the overburden of trees and vegetation forming a series of stepped terraces running adjacent to the river.

COULEE AND DRAINAGE CREEK

There are a number of coulees that intersect the Red and La Salle Rivers, representing erosional features and carrying surface runoff from the surrounding prairie landscape. These lineal creeks link the overall drainage pattern of the surrounding prairie and are important natural features to this semi - arid landscape. These water channels are areas of concentrated plant growth and are important wildlife corridors. They contribute significantly to enhancing the opportunities for wildlife habitat and add an element of visual beauty and variety to the developed area. This particular creeks form a physical link from the open space systems of surrounding residential development to the Red and La Salle River Corridors.



DRAINAGE CHANNELS ARE EVIDENT IN A NUMBER OF LOCATIONS

Figure 35

WILDLIFE HABITAT

The open drainage system of surrounding residential areas has provided retention ponds to deal with surface runoff. These water bodies now support populations of waterfowl and other wildlife which utilize these water habitats. They also provide a stopping point for significant number of migrating ducks and geese en-route to summer nesting areas in north and wintering grounds in the south. These flocks have a significant visual impact on the landscape and provide opportunities for direct interaction between wildlife and individuals living within the vicinity.

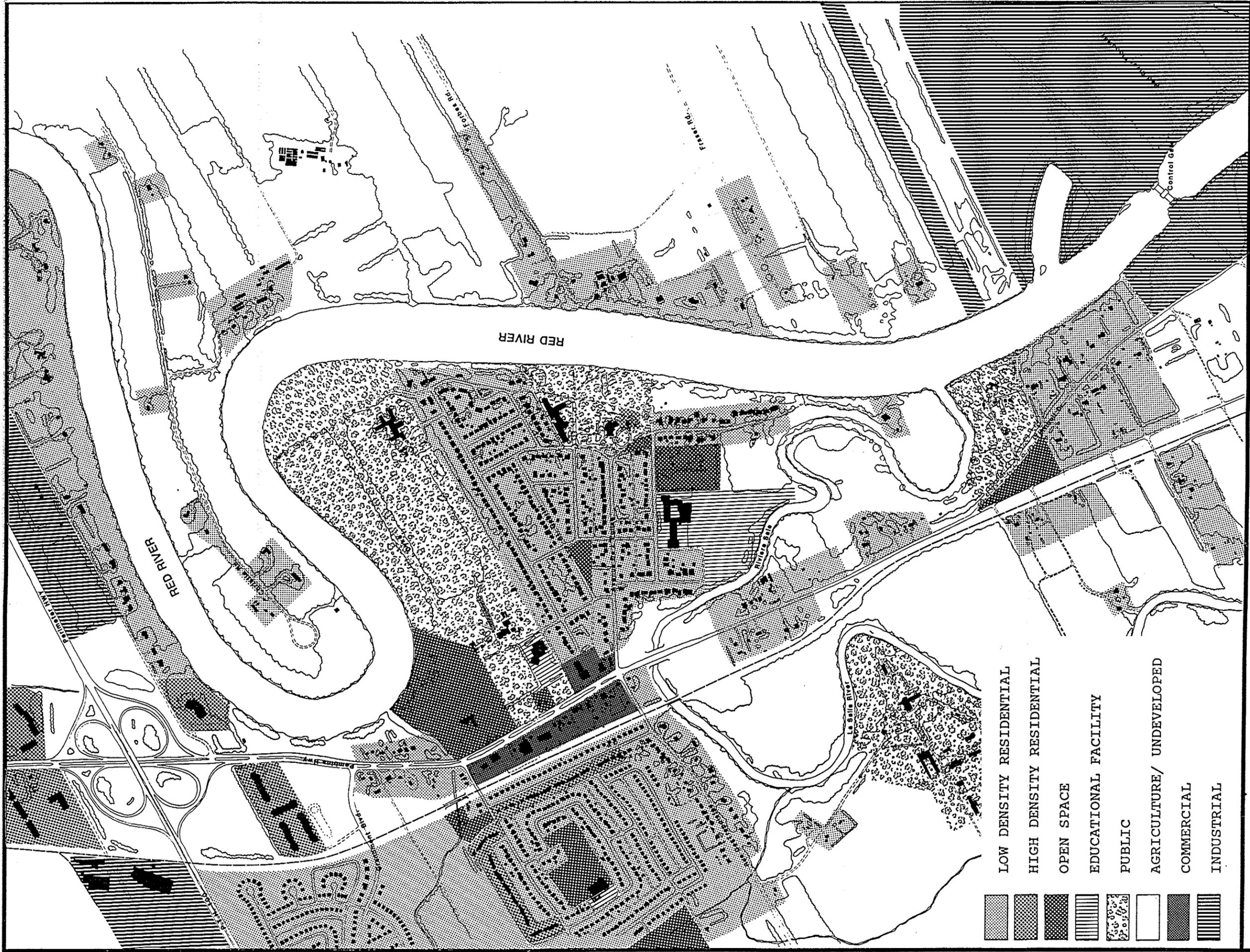
SITE ACCESS

The vast majority of the access to the St. Norbert Rivers is confined to various land based transportation systems. These being the overland vehicular routes which utilize city streets and extend to, or adjacent to these lineal water bodies. Pembina Highway plays a primary role in directing traffic through the St. Norbert area and providing a visual link to these two rivers. This is further enhanced by Pembina Highway being a direct link between the City of Winnipeg and the United States to the south.

Secondary access to the rivers is accomplished through the interconnecting network of streets within the community, and smaller access roads that abut the rivers in other locations. Direct vehicular access occurs in few places along the river corridors, as important access is accomplished by pedestrian modes. Pedestrian access is confined to a network of informal paths that parallel the river corridors. These paths are little more than substantially worn trails, devoid of vegetation which reflect desire lines and pedestrian movement systems. Bicycles are also a significant part of this informal pedestrian network, extending the realm of indiscriminate and poorly defined access further along the rivers.

The rivers are also directly accessed through boat traffic, which is a big summertime activity in the area.

The rivers, because of their relatively slow currents provide easily navigable course even for small craft such as canoes. There are however only a few points in which to launch boats along this stretch of the rivers.



ST. NORBERT

AN EXAMINATION OF PLACE

LAND USE

SOURCE

CITY OF WINNIPEG ENVIRONMENTAL PLANNING



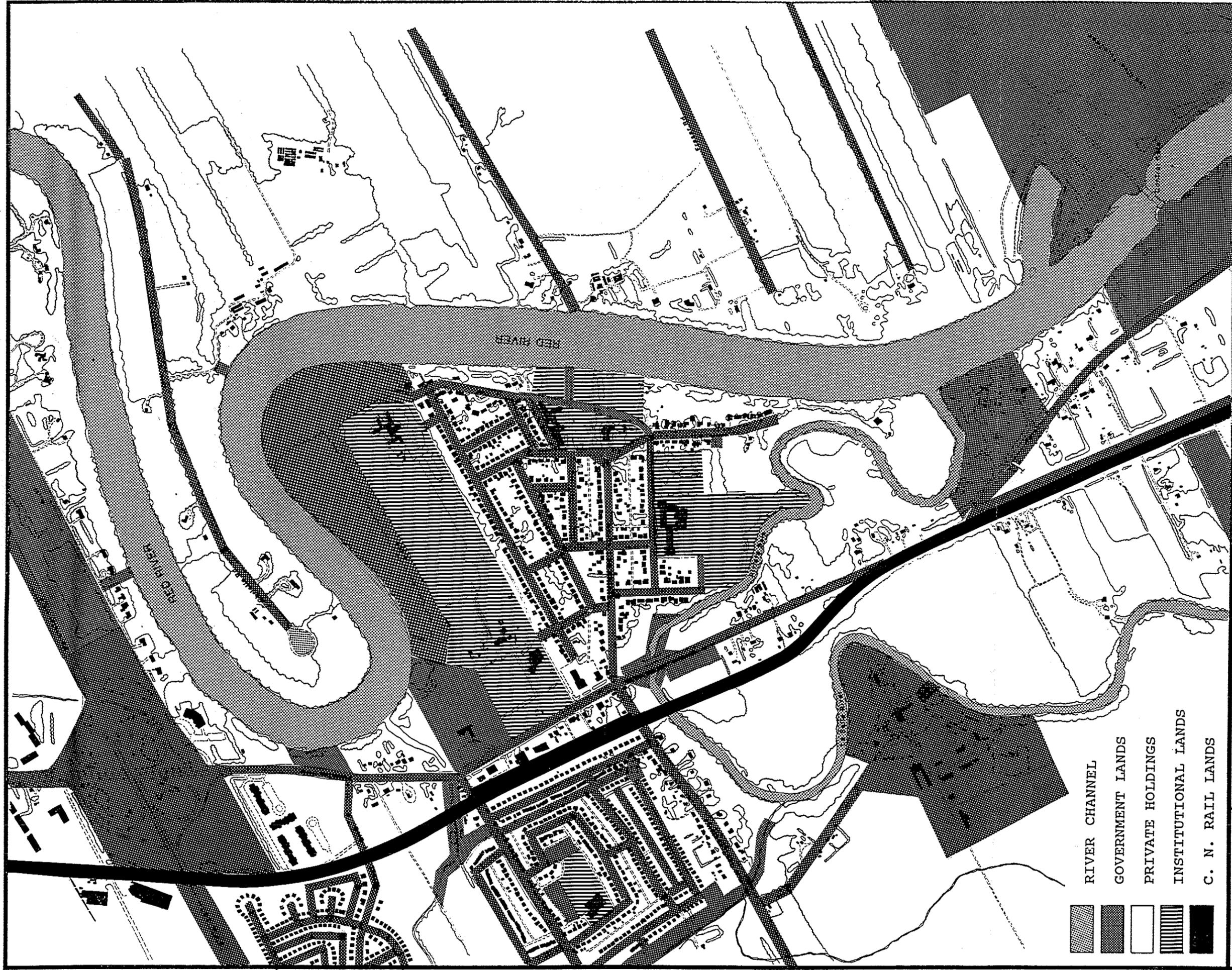
LAND USE

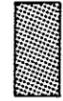
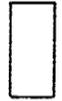
The primary usage of land resources in the study area belong to three major groups, agriculture/undeveloped land and low to medium density residential, an public lands relating to institutions, roads, the floodway, the river channels and other public lands. The agriculture/undeveloped land is remnants of the original colonial land holdings and continues to be used for agrarian purposes. A large portion of this land is being held on speculation for residential subdivision, while other areas remain undeveloped due to natural limiting factors including slope conditions, bank failure river channel characteristics and development restrictions.

Industrial use occupies a large block of land associated with the floodway structure and control gate at the south end of the study area. Additional industrial land is associated with Manitoba Department of Highways St. Norbert yards along the perimeter highway and the C.N. Rail line which dissects the community. Within the site area are three educational institutions with their own associated open spaces and recreational facilities. Although these educational institutions occupy a relatively small amount of land, they are gathering areas for residents and have intensive use.

Medium density residential is another small land holder, but also maintains intensive use. In a some areas such as South of the Border, condominium units have been introduced into the surrounding community to add to the town house style buildings that represent the current medium densities residential use. Most of these high densities units are scattered throughout the community, with only one holding a

prominent location. This structure is the seniors complex that has been constructed adjacent to the community church. Public land use is relatively high within the site area, encompassing a number of open spaces, neighborhood parks, retention ponds and historic parks. This type of land use is also higher scattered throughout the study area. Commercial uses that are within the community are all associated with Pembina Highway in a strip type development. Although these uses do not occupy large amounts of land they are quite prominent and form the southern extremity of the Pembina strip.



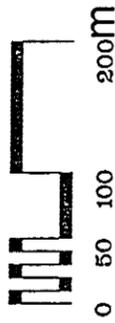
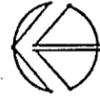
-  RIVER CHANNEL
-  GOVERNMENT LANDS
-  PRIVATE HOLDINGS
-  INSTITUTIONAL LANDS
-  C. N. RAIL LANDS

ST. NORBERT

AN EXAMINATION OF PLACE

LAND TENURE

SOURCE
CITY OF WINNIPEG ENVIRONMENTAL PLANNING



LAND TENURE

Land tenure within the study area can be grouped into five major interest areas. The most significant holdings can be attributed to private interests who maintain land for agricultural purposes, speculation and individual residences. This broad group occupies much of the land fronting the river corridors, and in some instances occupies the river channel itself. In other areas, some of the lots do not extend to the edge of the river at all. This occurs along Rue, De Trappistes at the La Salle River.

Institutional tenure of lands is prominent and includes religions institutions and school facilities. These organizations also retain control of a significant portions of the river front lands.

Government land holdings, including Federal, Provincial and City are also significant. Large tracts of land are controlled by government interests along the floodway and gate structure at the southern extreme of the site area. Other government interests include St. Norbert Historic Park and a number of community and open space facilities. They also include access points, utility corridors, dikes, natural and man made drainage corridors. The city also maintains control of over a number of natural drainage corridors that link into the storm water drainage channels of the surrounding residential subdivisions.

The Canadian National Railway maintains control over the track system and embankment running through the community.

It also retains a small band of property immediately behind the commercial strip which marks the location of the now defunct St. Norbert train station.

The final designation is the river channels and adjacent banks in which the land tenure rests within the general public and is controlled by the multiple levels of government. In general the federal jurisdiction rests with issues of navigation, water quality, public use of the river (including the frozen surface), and aspects of flood protection. Provincial interests are generally associated with the stream bed and the channel configuration, but also to historic/cultural sites, river bank use, water quality and flooding. The largest jurisdictional control lies with the municipal government. The city maintains interest in land use policy of river banks, riverbank development, flood protection, flow impediment, riverbank parks and public access to the rivers.

VIEWS AND VISTAS

The important visual sequences associated with St. Norbert occur along access corridors, and of these, Pembina Highway is the most significant. It forms a transportation route through which the community and its resources are seen. This prevalent access route provides a number of opportunities to directly view the river corridor and its natural setting. It also allows a visual connection to the overall community and the landmarks which give it an identity.

Turnbull Drive also provides a significant visual corridor through which the community and the river corridors can be observed. Its close association with the river at a number of locations provides panoramic and sequential views along the rivers. Within the community are a number of locations which provide opportunities for views of the community and regional resources.

These include Rue de L'Eglise which directly focuses views on the landmark quality church, and on a second area adjacent to the church with panoramic views of the Red River. Along the La Salle are a number of locations in which the river and the enclosed river bottom forest provide views of these features. Adjacent to the control gate, the view to the river is unobstructed with additional visual access up and down the Red River. On the east side of the river, views to the community are apparent but lack merit due to the restricted access to the river. The rivers themselves suffer from similar problems in that the rivers provide an unusual opportunity to view the community and its resources yet are rarely utilized.

FLOOD CONDITIONS

The Red River valley in which the City of Winnipeg is currently situated has been subject to period flooding for thousands of years. This is for the most part due to the site occupying a part of the broad flat plain left by post glacial lake Agassiz. In recorded history there have been a number of very large flood events occurring in 1776, 1790, 1809, 1826, 1852 and the last great flood occurring in 1950. Smaller floods have been recorded in 1966, 1974 and in 1979 with very little damage occurring within the St. Norbert area with these later day events.

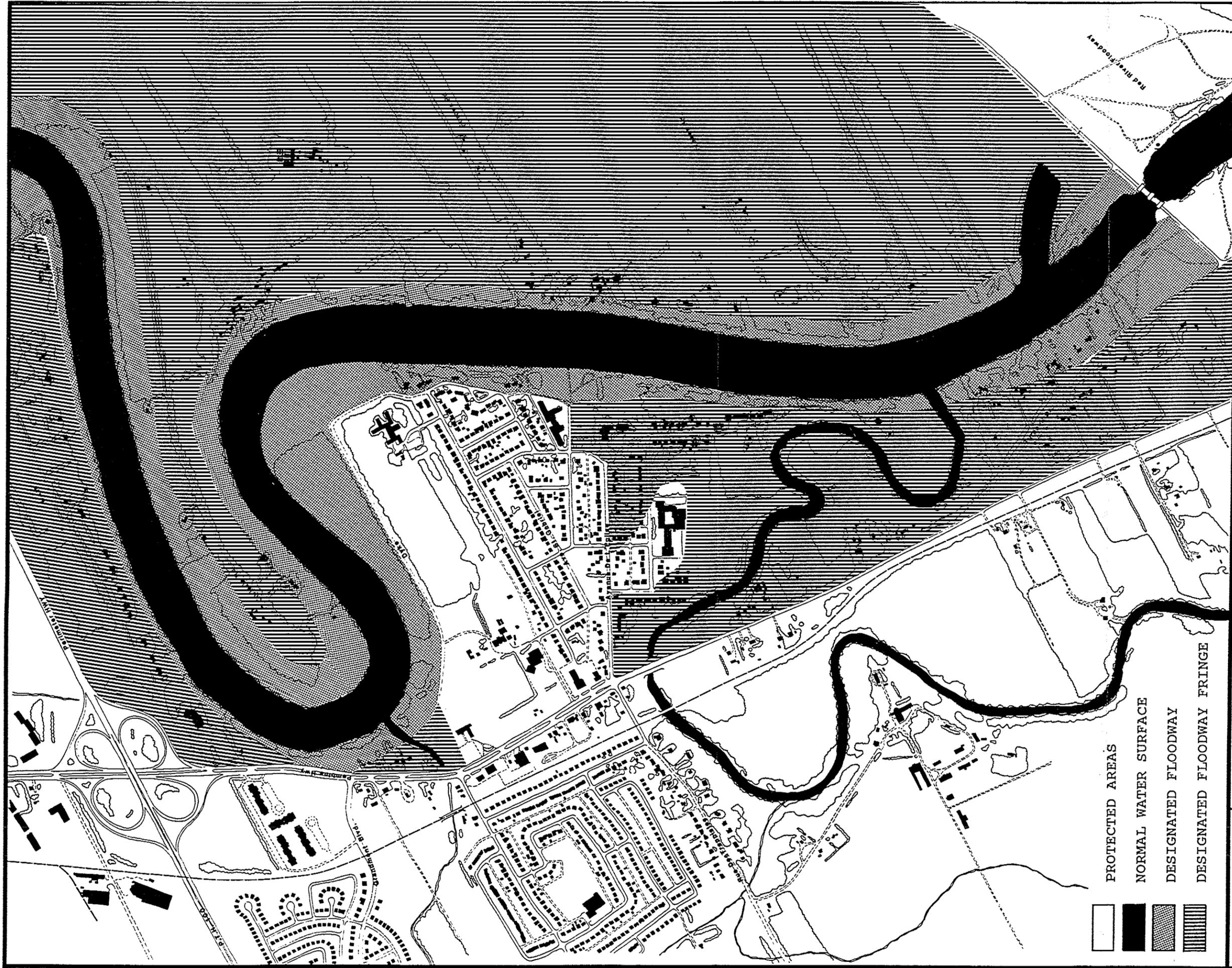
Since the installation of the Winnipeg floodway in the 1960's flood potentials have been reduced substantially. The water levels are controlled by the floodway and the control structure at Lockport. With this hydraulic manipulation, water levels are maintained at different minimum levels depending upon the time of the season. From the end of spring runoff to the end of October, water levels are artificially regulated at the elevation 734. In the winter levels are controlled by the channel characteristics and are in general approximately six feet lower than the controlled summer water levels. However, development is regulated by the flood protection elevation of 763.0, below which is the designated flood area. Permanent development below this elevation cannot occur without the establishment of a formal dike or similar protective structure

PHYSIOGRAPHY OF THE RIVER SYSTEM

The main river running through the St. Norbert site is the Red River, which originates in Lake Traverse about 500 miles

south of its outlet in Lake Winnipeg. Its watershed consists of the flat plains that were once the beds of glacial lake Agassiz.

The water descends in a general northward flow at about 1/2 foot per mile. It varies in depth from 20-50 feet and meanders throughout its course in its northward flow. The Red River has a significant number of tributaries that join it in its northern flow. South of the border, near Wapeton North Dakota, The Red River is joined by the Otter Trail, and Bois de Sioux Rivers. Near Fargo N.D., the Sheyenne and Wild Rice Rivers enter and at Grand Forks, the Red Lake. Past Grand Forks, the Snake River, the Park and Two Rivers enter the Red. North of the U.S. border, the tributary of the Red River include the Roseau, the Rat, Seine, Assiniboine and The La Salle. These tributaries represent only a fraction of those previous which have now been eliminated or formalized into controlled drains.



ST. NORBERT

ALLIANCE OF PLACE

FLOOD CONDITIONS



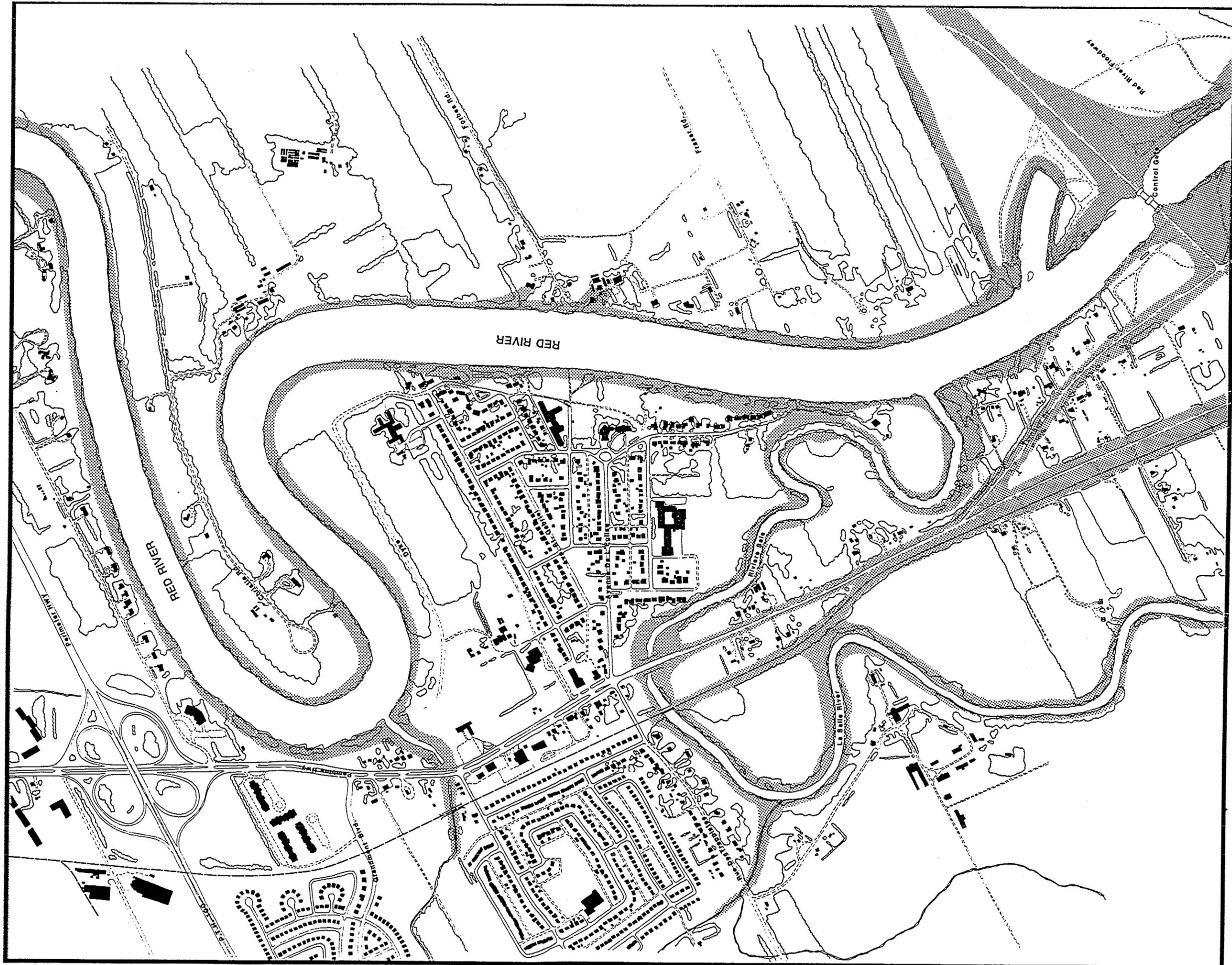
-  PROTECTED AREAS
-  NORMAL WATER SURFACE
-  DESIGNATED FLOODWAY
-  DESIGNATED FLOODWAY FRINGE

SOURCE:
INTERIM FLOOD RISK MAP 1980

SLOPES

The slopes conditions associated with the Red and La Salle river corridors and adjacent landscape are in general not highly significant. In most cases, and in relation to the average water flow conditions the relief consists of a mild slope to the water's edge from the surrounding banks. In other locations, such as at St. Norbert Heritage Park the slopes can consist of a significant vertical drop in excess of three meters. The slope conditions are however important considerations for recreational purposes, as slopes restrict movement, informal activities and development. Slopes greater than 10% require effort to climb and descend, and as such limit circulation. On the other hand, slope conditions restrict development which in this case has preserved some of the natural qualities and vegetation of these rivers.

The vast majority of slope conditions relate to the river's edge in association with fluvial oriented landforms such as slump blocks and river terraces. These landform conditions produce highly uneven terrain which defines the undeveloped margins of the river edge. Other areas of relief relate to the floodway/control gate structure and associated roadways and embankments. These areas of relief are generally smooth transitional slopes with minor height differential from the surrounding landscape. The control structure however has significant slopes adjacent to the roadway which are sporadically utilized for winter recreation and tobogganing.

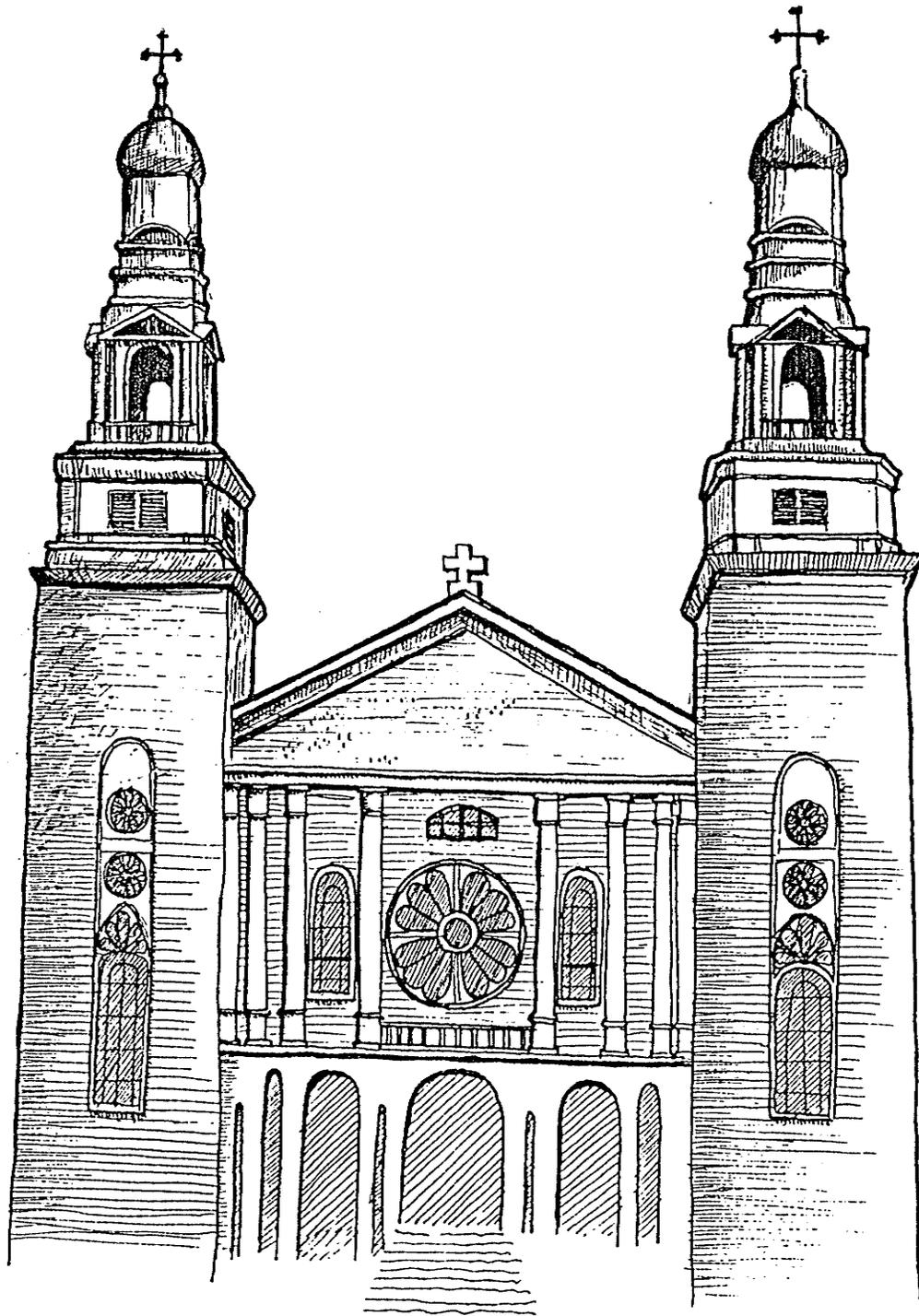


ST. NORBERT
AN EXAMINATION OF PLACE

SLOPES >15%
SOURCE
SURVEYS AND MAPPING



THE ST. NORBERT RIVER CORRIDORS AN EXAMINATION OF PLACE



SITE ASSESSMENT

SITE DEVELOPMENT OPPORTUNITIES

The distribution of resources was obtained by overlaying the individual resource maps. This overlay process illustrates the concentrations or clusters of resources within the river corridors, and begins to define where potential development may occur. To better understand the concentrations of resources and the development potential they hold, the following matrix was employed. Each of the potential development sites was examined to determine the extent of the resources they contain. An arbitrary number from one to four was assigned as a value of significance to the resources. A value of four indicating a resource that is unique on a Local, Provincial or even National scale, while a value of one relates to a resource of minor significance. The numerical values assigned to the types of resources begin to depict the degree of significance within each resource category. The intent of matrix is to provide preliminary and rational mechanism for determining the type of development that each site might employ. Recognizing that the matrix has limitations and gives significance to resources only within broad categories, the individual types of resources in each site were assessed. In addition, the overall rating of the site (as defined by the matrix) was examined to look at the broad direction of potential development. This was to ensure the lower rated categories which may have had high significance but not identified in the outcome of the matrix, were duly noted.

SITE RESOURCE MATRIX

POTENTIAL DEVELOPMENT SITES

SITE A SITE B SITE C SITE D SITE E SITE F SITE G & H

HISTORIC

HISTORIC BUILDING ON SITE			•			•	•	
ARCHAEOLOGICAL SITE	•					•	•	
HISTORIC EVENT ASSOCIATION	•							
BURIAL SITE OR GRAVEYARD	•			•		•	•	
HISTORIC ROUTE								
total								

NATURAL HERITAGE

COULEE		•	•	•	•		•	
RIVER EROSION		•		•				
RIVER TERRACES	•	•				•		
SLUMP BLOCKS		•				•	•	
MEANDERS		•				•	•	
MEANDER CUTOFFS	•	•			•	•	•	
FOREST HABITAT						•		
FLOOD PLAIN COMMUNITY								
ISLANDS	•	•	•	•	•		•	
VIEWS								
total								

CULTURAL HERITAGE

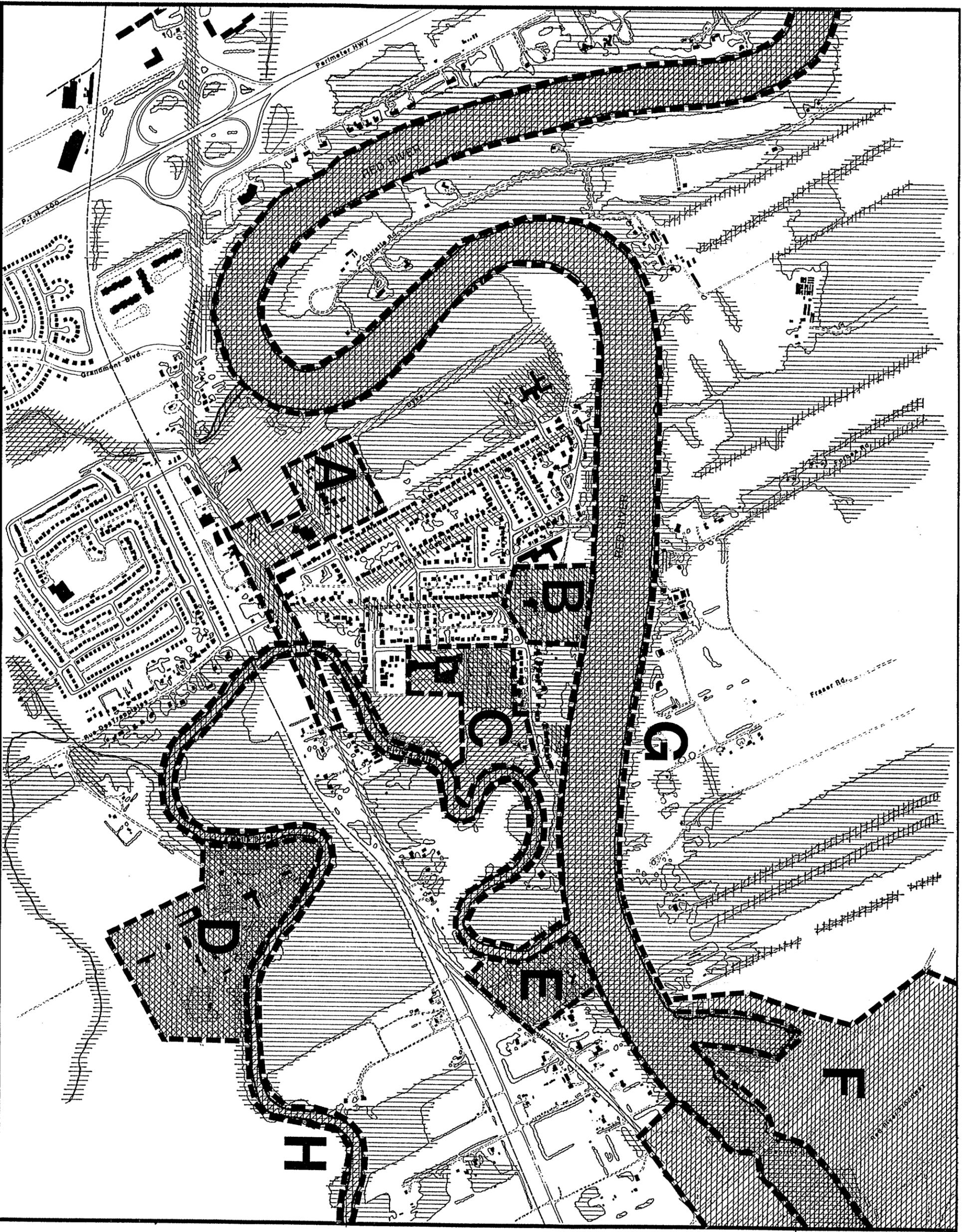
FARMING PATTERNS	•	•	•		•	•		
EARLY SETTLEMENT			•			•		
COMMERCIAL DEVELOPMENT	•	•	•		•	•	•	
RESIDENTIAL DEVELOPMENT	•	•	•		•	•		
BUILDINGS			•			•	•	
total								

RECREATIONAL

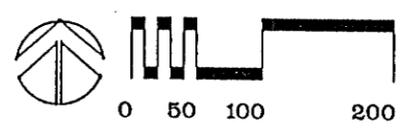
SPORTS FIELDS		•		•	•	•	•	
PLAYGROUNDS	•	•		•	•	•	•	
WALKING/HIKING TRAILS		•		•				
INFORMAL RECREATION		•						
INTERPRETIVE TRAILS	•	•	•			•	•	
total								

KEY

HIGHLY SIGNIFICANT	
MODERATELY SIGNIFICANT	
LOW SIGNIFICANCE	
NO CONNECTION TO SITE	•



ST. NORBERT RESOURCE
 AN EXAMINATION OF PLACE CONCENTRATIONS



SITE ASSESSMENT AND DEVELOPMENT THEMES

As indicated in the resource concentration map, the majority of the resources are confined to strategic locations within the river corridors, adjacent to the Red and La Salle Rivers. While the various types of resources may be found throughout the locations, these resource concentrations display an affinity for certain types of development. The matrix begins to define the general categories of resources and establishes a preliminary weighing system. However, because some nodes contain a small number of highly significant resources each of the sites require additional clarifications as to the nature and type of resource to examine possible stories and potential development themes. By examining the resources and their significance one is able to propose potential development and interpretive themes which could enhance and portray a storyline and a notion of place to a potential viewer. It also enables that the proposed recreational development respond to site conditions and opportunities.

SITE "A" - PLACE ST. NORBERT

ASSESSMENT

As indicated in the matrix, site "A" displays a significant concentration of historic and cultural type resources. The landscape resources are mostly scenic with additional natural features that are neither unique or particularly spectacular to a prairie river system. Their value generally lies in that the resources are good representative examples of river physical features and have further potential in

displaying the interrelationships of a prairie river. The other categories of significant resources are the recreational resources adjacent to the site. These give this location a physical focus to recreational and leisure type development. The historic resources, identified in this location are important within the matrix are some of the most highly significant. This site contains two groups of historic buildings that are of architectural significance at a Provincial and City wide level, and are associated with religious orders and the founding Franco-Metis of the region. Also associated with this setting is the general location of La Barriere.

POTENTIAL DEVELOPMENT THEMES

- . Local development/unique architectural interpretation
- . La Barriere and the Riel Rebellion
- . Leisure/recreational focal point
- . River corridor access and entry point
- . Living environment interpretation
- . Natural systems
- . Gateway to the City / tourist information

SITE "B" - THE CHURCH SITE

ASSESSMENT

The matrix defines this location as a significant concentration of historic resources. This site depicts the prominence of the church and the roles the Catholic order played in the development of this local landscape. The historic ties to the site are strengthened by the

approximately 1500 Metis reported to have been buried on this site, and role this location played in Canadian Confederation. The site is also significant for its archaeological designation, which links the site to prehistoric aboriginal peoples. The natural and environmental resources associated with this site further strengthen its significance. Although they are not unique resources, they enhance the significance of the site.

POTENTIAL THEMES

- . The first Metis cemetery
- . Religious significance of landscape
- . Riel Rebellion and Canadian Confederation
- . The Metis people
- . Unique Architecture
- . Scenic resources of river corridors

SITE "C" - SHERWOOD FOREST

ASSESSMENT

Within the resource ranking matrix, site four represents a high concentration of natural and environmental resources. Within this site are a number of well defined river oriented landscape features which provide evidence of landscape forming processes and environmental relationships. One of the most significant environmental resources within this site is the relatively untouched stand of river bottom forest. Because of its condition and location relative to an urban center, this forest environment is highly significant. It represents an excellent opportunity for depicting

environmental relationships and display a representative landscape environment. Its sighting adjacent to a school and near a major university enhance the environmental significance of this location for educational purposes.

A secondary significance lies in the adjacent recreational resources and the informal trails that have been established within the site. The location is currently responding to leisure time activities without established programming. Also associated with the site are historic resources of minor significance, most of which are in association with the adjacent graveyard that defines the final resting place of founding forefathers.

POTENTIAL THEMES

- . The river bottom forest environment.
- . Biological/Scientific reserve.
- . Interpretation centre
- . River systems
- . Leisure/Recreational focus

SITE "D" - THE TRAPPIST MONASTERY SITE

ASSESSMENT

This site is currently designated as a significant historic location and a Provincial Park. The site currently contains a number of cultural and historic resources relating to the Trappist Monks, their life and work on this location. The items located on this site have been recognized, developed and interpreted within a well developed Provincial Park format. The significance of this location as defined by the

the matrix also relates to the natural and environmental conditions associated and adjacent to the site. Remnant portions of the river bottom forest are evident, along with some river oriented landscape features. Although not highly significant these resources define a natural setting to the location and provide some scenic beauty. The value of natural features on this site relate to depicting natural systems and providing wildlife habitat.

POTENTIAL THEMES

- . A connective or linkage feature
- . Access point to River Corridors
- . Natural systems and river environment
- . Interpretation (Religious Theme), Education

SITE "E" - ST. NORBERT HISTORIC PARK

ASSESSMENT

This location is also a developed resource within this local landscape. It contains an array of historic homes and feature, which attempt to depict the early culture of this region centering on the French Metis. The development relates to both the history and culture of the region through the collection of restored homes. The site also contains some largely unexplored archaeological resources, including potential native burial areas and seasonal camping areas. There are also a number of representative river oriented natural features which include the junction of the two individual river systems. This location also has a significant stand of river bottom forest and its associated

natural features.

POTENTIAL THEMES

- . Early native land use
- . The Metis culture
- . Fluvial processes and stream evolution
- . Wildlife habitat
- . River access and interpretive activities.

SITE "F" - THE FLOODWAY SITE

ASSESSMENT

The matrix defines this location as generally oriented toward recreational development opportunities. While this area contains few landscape resources of particular significance, its location next to the water's edge and in relationship to an active road system enhances the use of this site. In relationship to these, the area has an extensive system of trails and a small associated boat launch. Its fishing resources and the slopes associated with the control dam provide a strong recreational focus to this area. The natural river setting and its proximity to the City enhance the use of this area for leisure and recreational use. The area is further significant because of the control structure and adjoining floodway.

POTENTIAL THEMES

- . River access and boat launching
- . Recreational focus
- . Scenic Resources and River Corridor

- . Linkage area
- . Landscape restoration
- . Wildlife corridor

SITE "G" & "H" THE RIVER CHANNELS AND BANKS

The river channels and banks are the most significant resources within the corridors. They are important natural features, contain aquatic habitat, forest resources, wildlife habitat and are also significant for their historic use and connection to a number of cultural groups. From a recreational point of view these resources are the most attractive features within this landscape. They could provide the very spine of a recreational strategy, and because of their form, have the potential to provide a linking mechanism between resource concentrations within a continuous system.

THE NEED

The landscape of St. Norbert is a landscape of locality, a place, an environment set apart from the surrounding landscape by virtue of an enduring cultural heritage, a unique history, an exemplary natural setting, and an identity connected to Canadian Nationalism. The components that define this unique landscape setting represent a series of important resources. However one can appreciate that their significance may be overlooked, and is generally inconspicuous in an evolutionary and living landscape. The tangible evidence of culture and the past often goes unrecognized and falls into neglect while cultural/historic sites without designation fall to development pressure.

The realities of suburban development have encroached upon this historic landscape, utilizing its scenic beauty, its history, and its natural rural setting as desirable alternatives to inner city neighborhoods. Recognizing that this national trend is not likely to change in the foreseeable future, the community of St. Norbert will grow and the character will change as metropolitan Winnipeg expands. As populations in Winnipeg grow, demands for suburbanization will continue to place strong pressures on property within the river corridors, thereby compromising important environmental, cultural and historic resources. Once river frontage becomes locked into suburbanization, opportunities for recreational development, cultural exploration and environmental education become lost, and often resources are destroyed. If one agrees with the theme of this study, that by virtue of its resources the St. Norbert River corridors and the surrounding landscape

settings are significant and of value, it is logical to assume that the resources are worth protecting. Designation of the river corridors would serve to recognize and set apart the landscape as something of significance and, draw attention to its potentials. Designation once in place, provides a mechanism whereby the resource can be identified, and development provides a means of protecting and interpreting the resource.

RECREATIONAL DEVELOPMENT ISSUES

The development of a recreational strategy involves a number of issues both site specific and non-site specific. For the purpose of this study, the issues examined will deal mainly with recreational trends and site specific issues which relate to recreational development, resource protection and conservation.

RECREATIONAL TRENDS

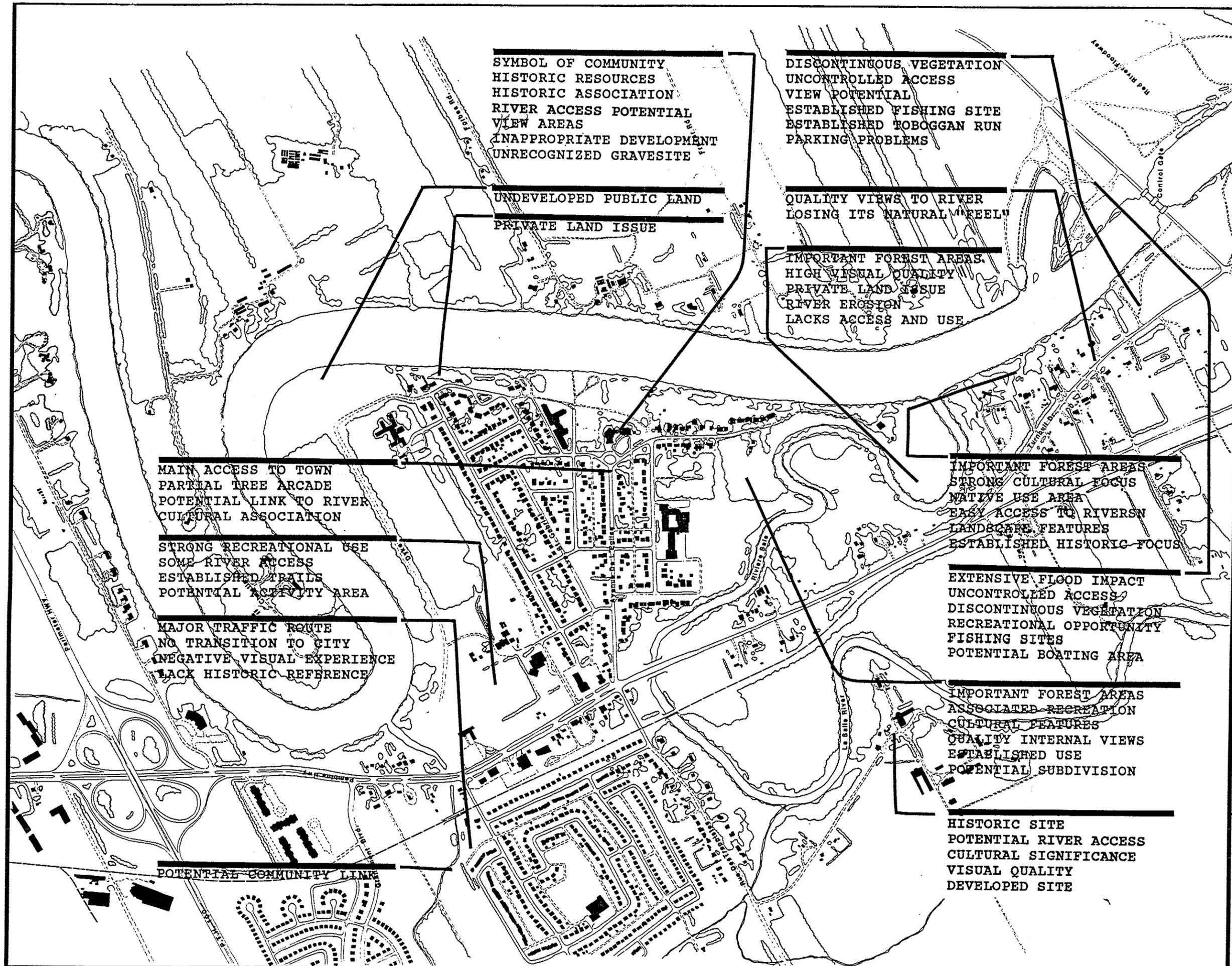
In general Canadian recreational trends (as identified by Michael Hough and Suzanne Barrett in " People And City Landscapes " 1987) conforms to the following trends. There has been a shift toward a greater emphasis on individual types of activities. Individual type skills include such activities as cross country skiing, jogging, cycling, and walking, with an increased demand for high quality environmental educational opportunities.

These recreational trends go hand in hand with increased

demand for natural environments, desires for more varied open spaces within and adjacent to cities, concern for the environment, heritage resource protection, and conservation. The trends of increasing costs of travel, increasing leisure time, and expanding development reducing recreational opportunities, are placing emphasis on diverse quality recreational experiences close to home. If one can assume that we follow the National trends, the rational development of the St. Norbert River Corridors is not only important but timely and necessary.

SITE DEVELOPMENT ISSUES

The following development issues are site specific and relate both to the development of the site for recreation and the preservation and protection of important visual aspects and sensitive sites. The issues are identified in point form on the associated map and relate to the potentials and limitations of the site.



SYMBOL OF COMMUNITY
 HISTORIC RESOURCES
 HISTORIC ASSOCIATION
 RIVER ACCESS POTENTIAL
 VIEW AREAS
 INAPPROPRIATE DEVELOPMENT
 UNRECOGNIZED GRAVESITE

DISCONTINUOUS VEGETATION
 UNCONTROLLED ACCESS
 VIEW POTENTIAL
 ESTABLISHED FISHING SITE
 ESTABLISHED TOBOGGAN RUN
 PARKING PROBLEMS

UNDEVELOPED PUBLIC LAND
 PRIVATE LAND ISSUE

QUALITY VIEWS TO RIVER
 LOSING ITS NATURAL "FEEL"

IMPORTANT FOREST AREAS
 HIGH VISUAL QUALITY
 PRIVATE LAND ISSUE
 RIVER EROSION
 LACKS ACCESS AND USE

MAIN ACCESS TO TOWN
 PARTIAL TREE ARCADE
 POTENTIAL LINK TO RIVER
 CULTURAL ASSOCIATION

IMPORTANT FOREST AREAS
 STRONG CULTURAL FOCUS
 NATIVE USE AREA
 EASY ACCESS TO RIVERSW
 LANDSCAPE FEATURES
 ESTABLISHED HISTORIC FOCUS

STRONG RECREATIONAL USE
 SOME RIVER ACCESS
 ESTABLISHED TRAILS
 POTENTIAL ACTIVITY AREA

EXTENSIVE FLOOD IMPACT
 UNCONTROLLED ACCESS
 DISCONTINUOUS VEGETATION
 RECREATIONAL OPPORTUNITY
 FISHING SITES
 POTENTIAL BOATING AREA

MAJOR TRAFFIC ROUTE
 NO TRANSITION TO CITY
 NEGATIVE VISUAL EXPERIENCE
 LACK HISTORIC REFERENCE

IMPORTANT FOREST AREAS
 ASSOCIATED RECREATION
 CULTURAL FEATURES
 QUALITY INTERNAL VIEWS
 ESTABLISHED USE
 POTENTIAL SUBDIVISION

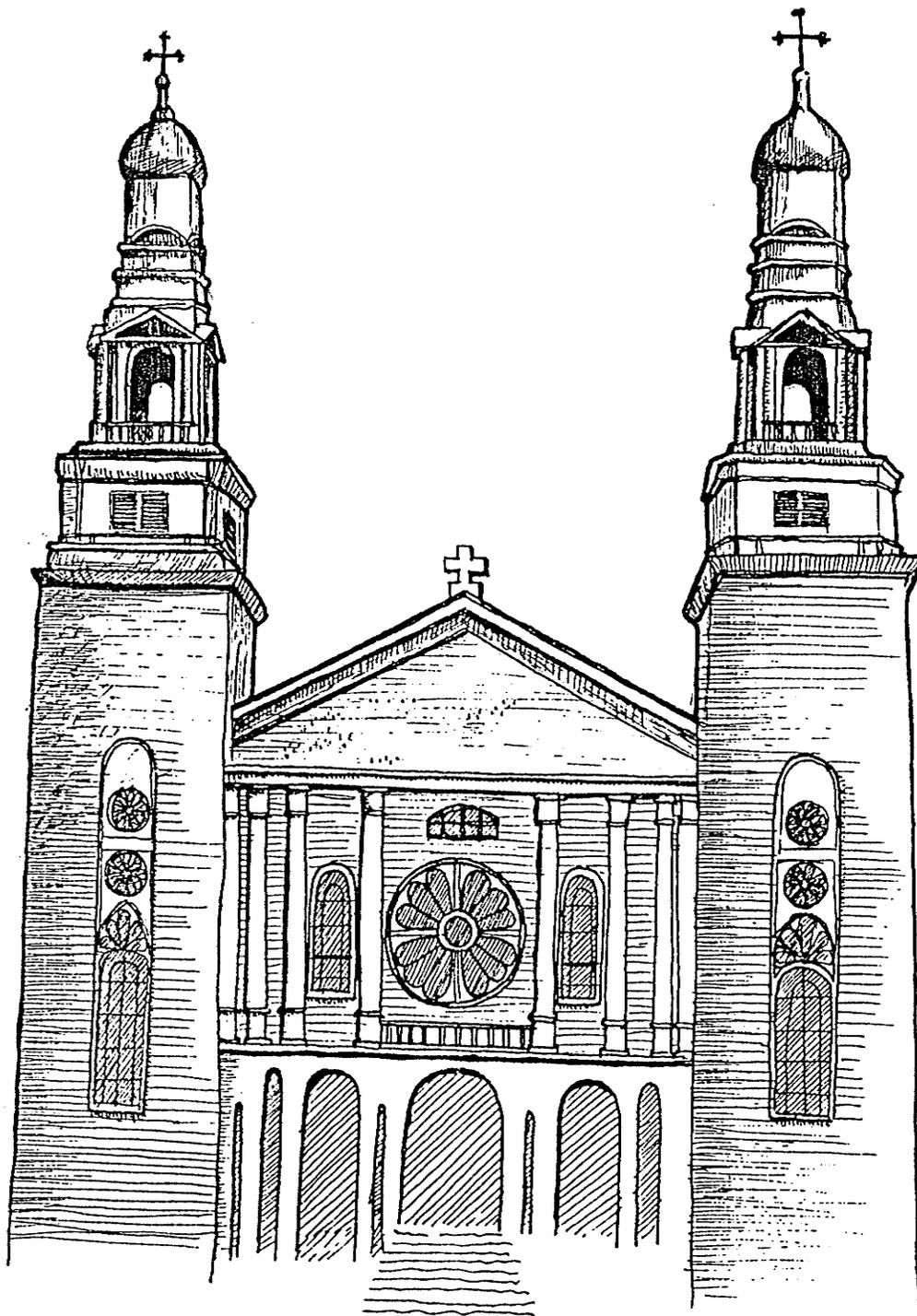
POTENTIAL COMMUNITY LINK

HISTORIC SITE
 POTENTIAL RIVER ACCESS
 CULTURAL SIGNIFICANCE
 VISUAL QUALITY
 DEVELOPED SITE



ST. NORBERT SITE DEVELOPMENT
 AN EXAMINATION OF PLACE **ISSUES**

THE ST. NORBERT RIVER CORRIDORS AN EXAMINATION OF PLACE

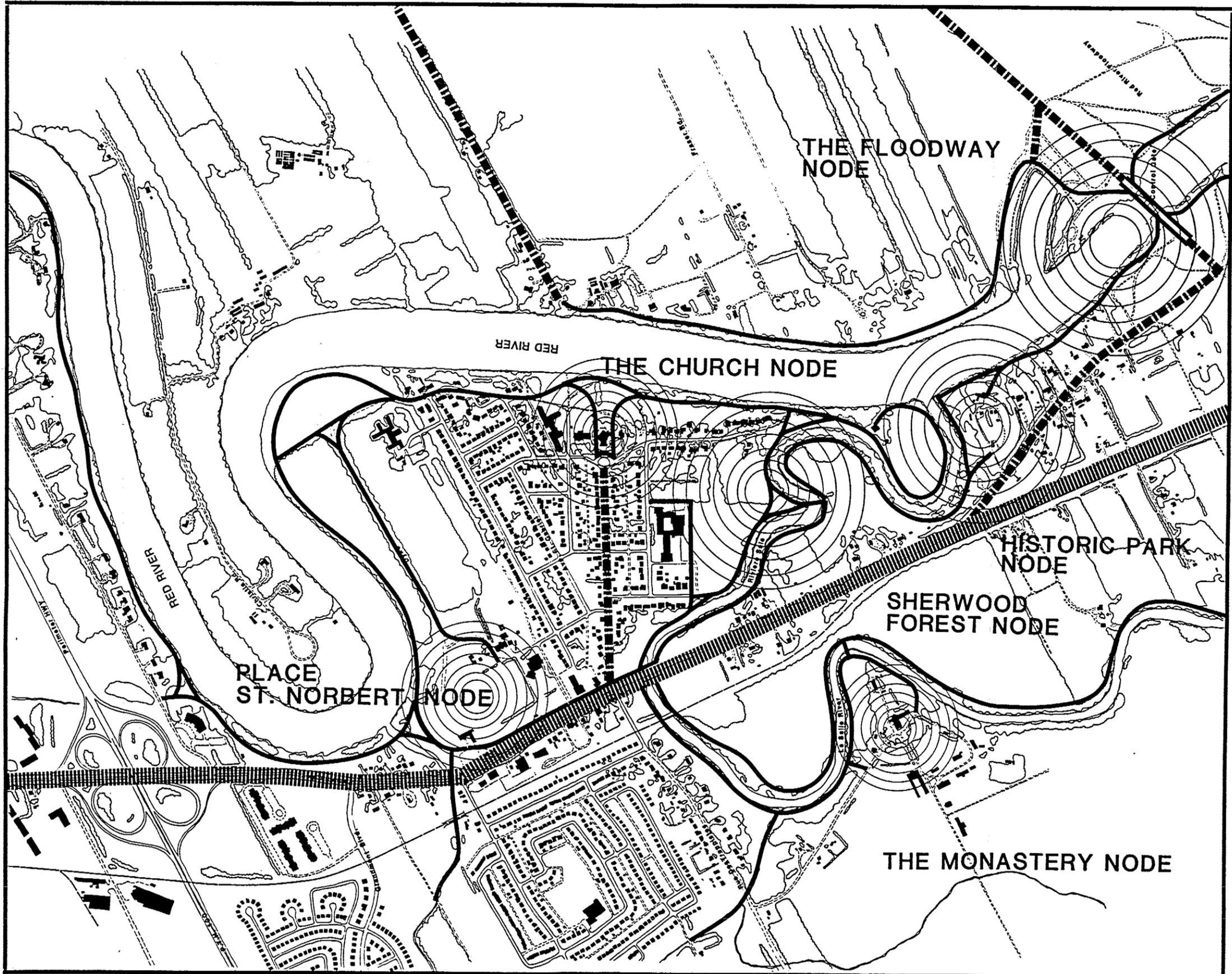


THE VISION

THE VISION: A RECREATIONAL STRATEGY

The recreational strategy proposed for the St. Norbert river corridors involves the development of its cultural, historic and recreational potential. The development is centered on (but not limited to) the identified resource concentration areas. Each of areas are developed to reflect a nodal point within the overall strategy. The type of development for each node is specific to the type of resources contained within the concentrations. The purpose of the nodal development is to address the concentrations of resources and develop them as concentrations of activities. Between and connecting the nodal developments are a network of pedestrian pathways that serve to link and provide access to the river corridors and and their resources. Within this development strategy, the nodal points provide interpretive opportunities in which the history and cultural heritage can be recalled. The associated artifacts and historic/cultural events are explored through interpretation to allow an awareness and knowledge of the unique heritage of this locality. By the same mechanism, the physical landscape is examined to evoke in the minds of the viewers a understanding of the natural river processes and landscape setting.

Interpretation of the broad range of environmental, cultural, and historic resources within the St. Norbert river corridors serves as a means of conveying the significance of this site to the general public. The path system further responds to the need to access the resources and the natural landscape and provide a means off exploring the richness and diversity of this landscape. The path system allows and accommodates



ST. NORBERT DEVELOPMENT STRATEGY

ST. NORBERT
AN EXAMINATION OF PLACE

other types of recreational activities suited to the linear form of this recreational strategy. These include cycling, walking, jogging, and cross country skiing.

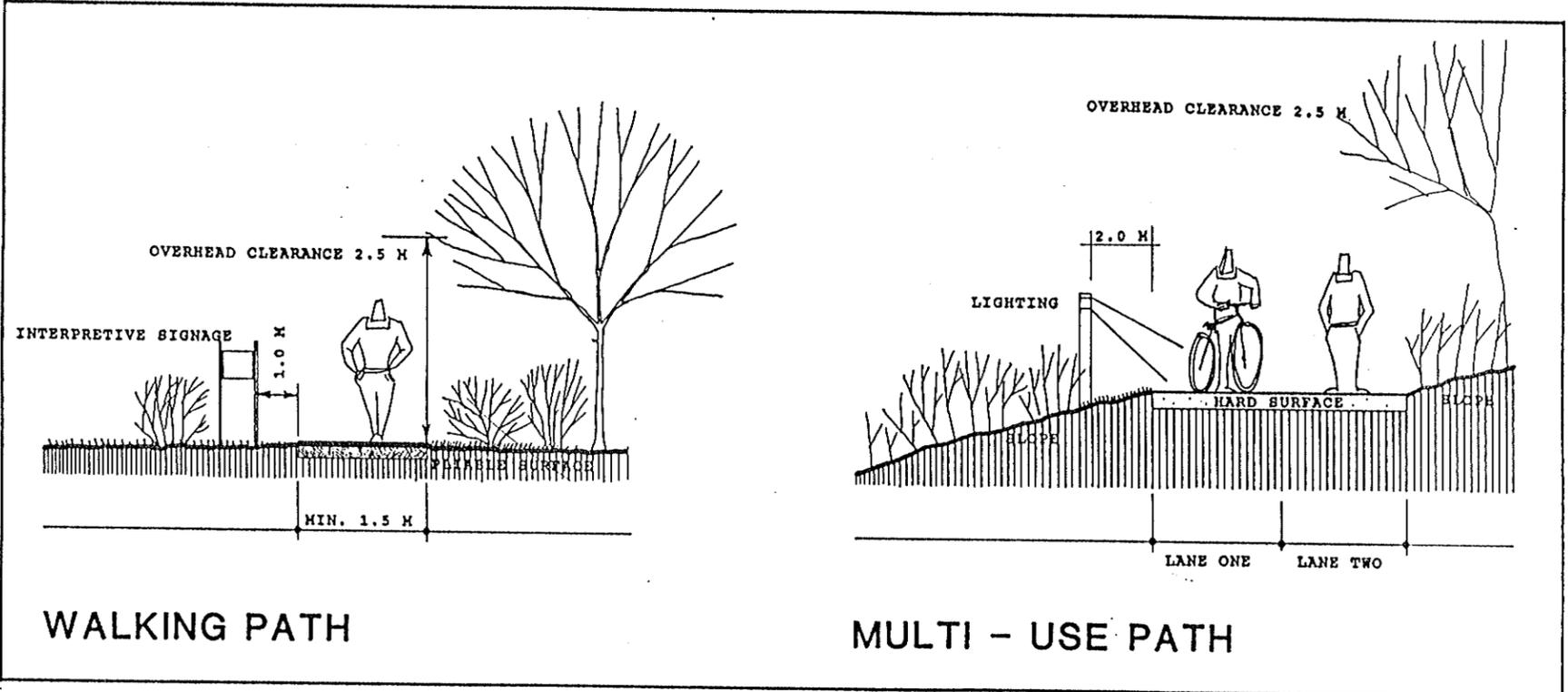
The associated development strategy map demonstrates the development of the resource concentrations as a series of recreational/activity nodes that are linked together by access paths to form an activity network. The paths are the primary means of physical linkage relating the resources within a recreational system. The individual nodes are developed as interpretive units, depicting historical, natural and cultural themes. The following descriptions depict the type of development that the individual nodes reflect within this strategy. The recommendations are specific to the sites and are intended to suggest ways in which each of the individual sites can best be developed for recreational interests.

RIVER CHANNELS AND BANKS

The river channels and their forested banks currently represent the single most attractive feature of this landscape. In order to develop a recreational strategy within this space, a number of issues need to be addressed. The first of these relates to resource preservation. The forests of this landscape are for the most part an exemplary feature, however in a number of locations they are discontinuous and degenerating. This is mainly due to the clearing of trees in areas such as the floodway and on private lands and the disease oriented degeneration of the

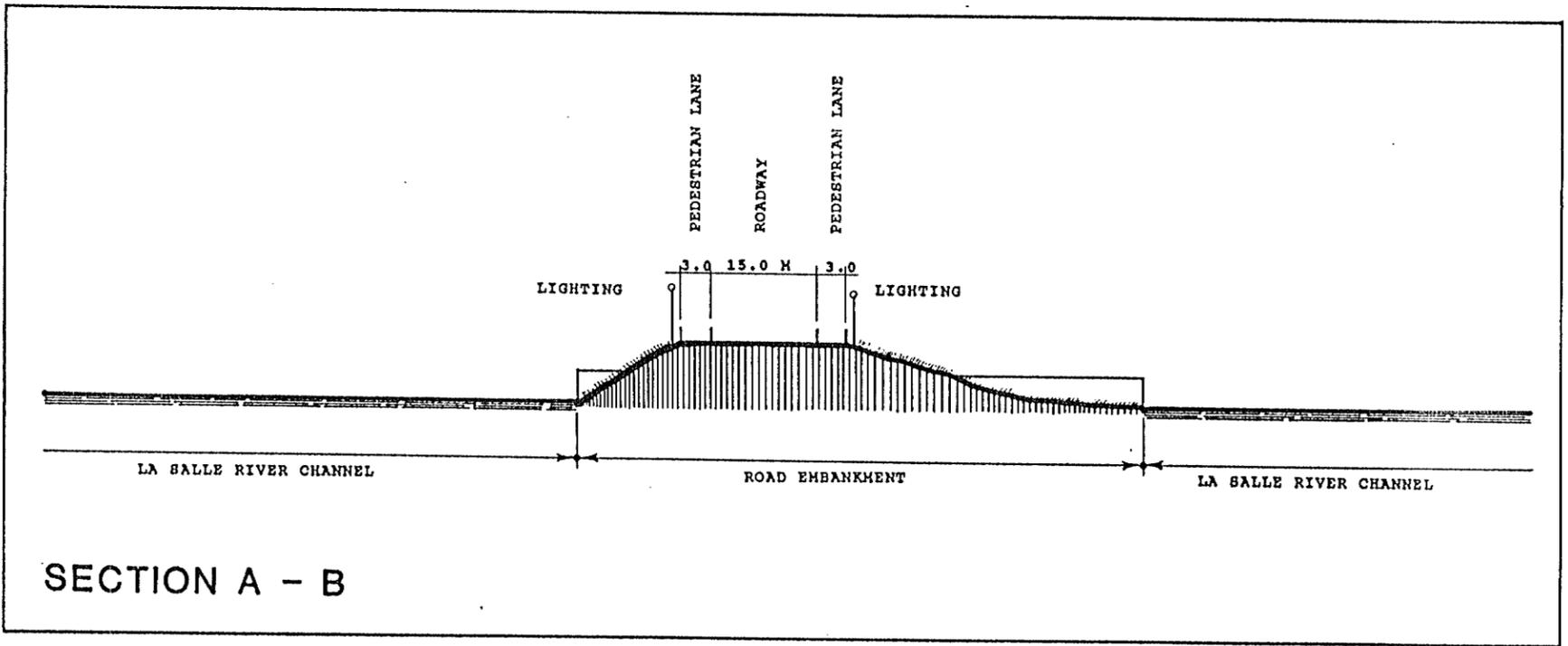
forest. This issue needs to be addressed through promotional efforts that discourage tree removal, and encourage programs and guidelines for native tree planting and forest restoration.

The second issue that needs to be addressed in defining a recreational strategy is the need to provide a rational system of pedestrian access. This allows the rivers and their resources to be accessed by the largest number of people while causing the minimum impact upon the landscape. As depicted in the " PATH SYSTEM " illustrations the pedestrian paths should conform to the river topography allowing access to both banks. Where access is blocked through obstacles such as bridges and road embankments, efforts should be made to define formal pedestrian pathways. This will allow obstacles to be incorporated and provide a continuous system important to the recreational designation. The individual paths conform to the anticipated use of the area and reflect the type of development within each node. Walking paths in forested areas closely follow the topography ensuring minimal damage occur to the associated vegetation. The paths are a minimum of 1.5 meters wide to accommodate comfortable movement and maintain a pliable surfaces (such as wood chips) to accommodate pedestrian access and discourage wheeled use of pedestrian only paths. Adjacent to the paths and relating to the particular resources are incorporate interpretive signage. Standards for overhead clearance ensure safety considerations are recognized, mitigating potential hazards associated with access to this river zone. Multi-use paths incorporate different standards allowing

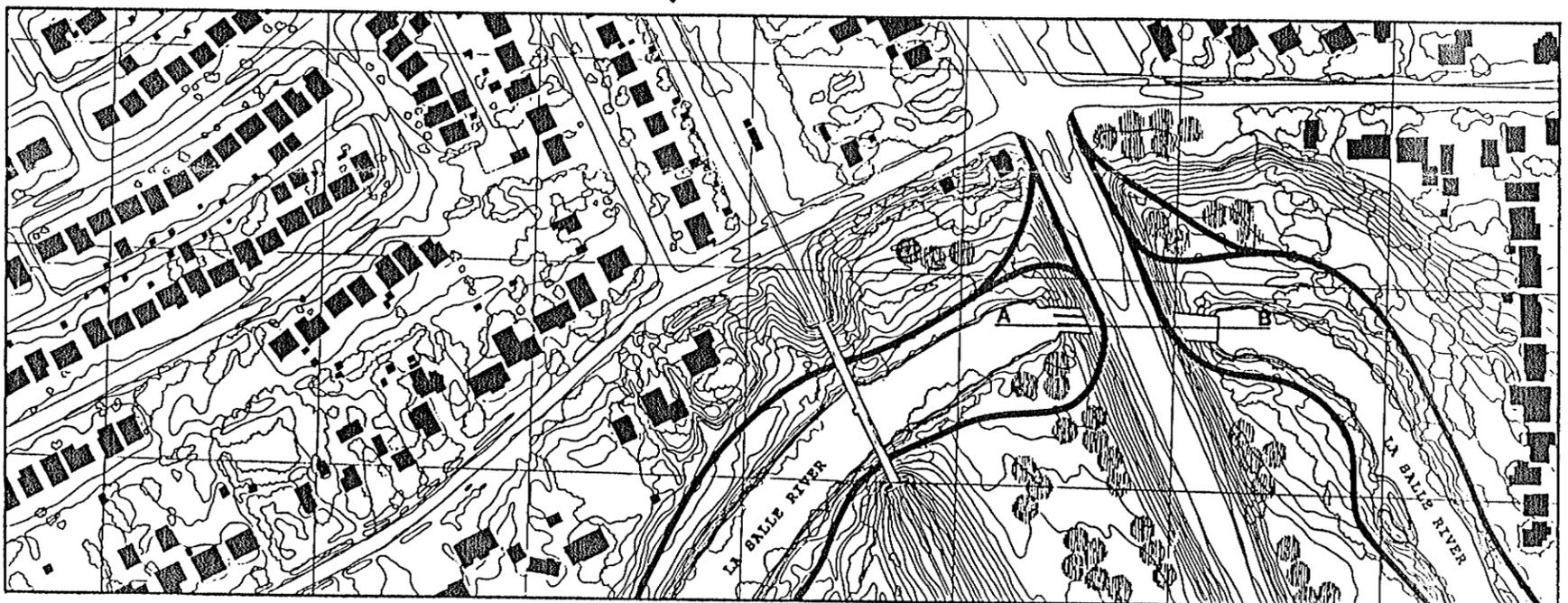


WALKING PATH

MULTI - USE PATH



SECTION A - B



ST. NORBERT PATH SYSTEM
AN EXAMINATION OF PLACE



pedestrian and wheeled traffic to co-exist. In these circumstances traffic lanes are defined, and lighting incorporated to accommodate heavier use. The surface of these paths are upgraded to a hard surface to allow active use.

PLACE ST. NORBERT NODE

The development of this node involves the expansion of the current interpretive role of the site to include the adjacent St. Norbert Foundation property. This also includes a recognition of the role this general area, and the Metis played in the La Barriere event of the Riel Rebellion.

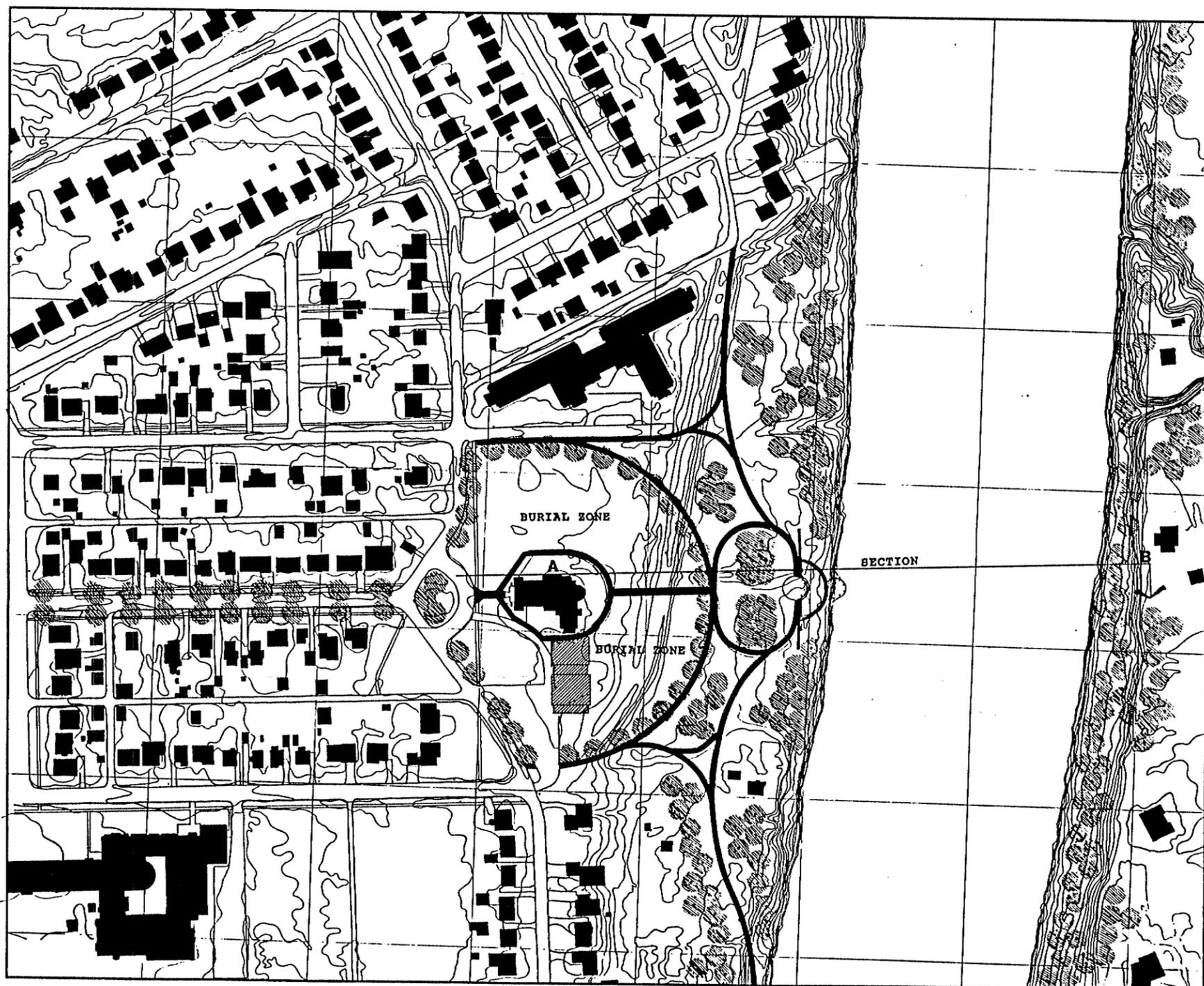
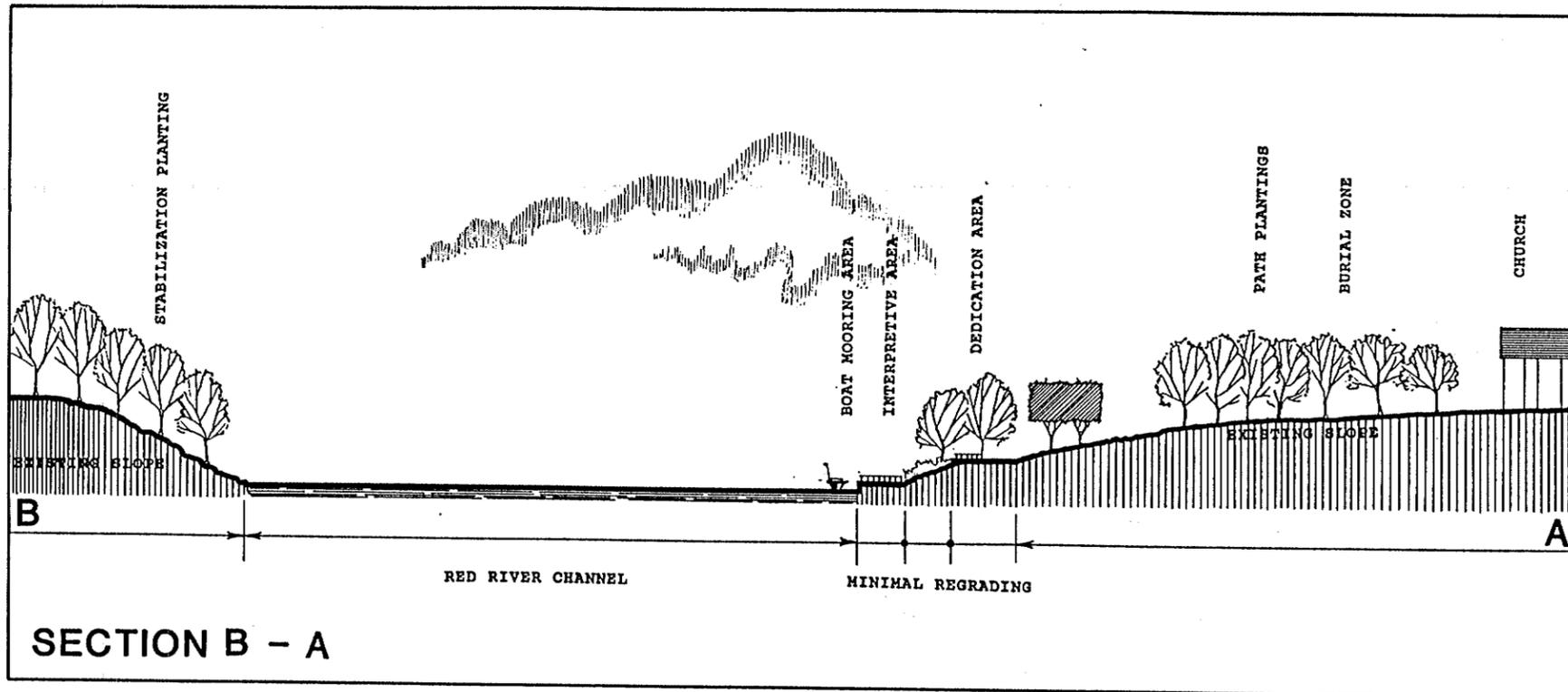
The site is further developed to address its prominent location allowing a visitor information feature to promote this area and enable it to serve as a entry point in the recreational system.

The node is linked to the adjacent recreation amenities at the St. Norbert community club and to the river by pedestrian paths.

THE CHURCH NODE

The church node is developed as one of the important features within the recreational system. Its prominent cultural and historical resources are interpreted to recognize the role of the church within this landscape and the role of the Metis people. The church grounds are recognized as a burial site and one of the first Metis graveyards. Interpretation further recognize the role this site played in the Riel Rebellion.

The nodal development enhances the role the site currently



ST. NORBERT THE CHURCH
 AN EXAMINATION OF PLACE NODE

plays as an access area to the river. This is accomplished by providing formalized paths that connect from the street to the water channels as defined in " THE CHURCH NODE " illustration. The paths define a formal area adjacent to the church which is dedicated to the Metis people, thereby recognizing the burial significance of this location. The paths also define areas that incorporate interpretive and dedication areas to recognize the historic and cultural importance of this site. Access is extended to the waters edge to allow docking of recreational boats and canoes.

HISTORICAL PARK NODE

Within the recreational strategy, the current Historical park is expanded to include additional aspects of the Metis culture within this region. Outdoor displays are incorporated to expand the current Franco - Manitoban and Metis domestic focus to include the role the Metis played in the fur trade, York boat Brigades and Red River cart trains and the Riel Rebellion. The Native role is also incorporated by archaeological exploration of the areas adjacent to the junction of the Red and La Salle rivers. The results of these explorations would be incorporated in the depiction of this site and enhanced with additional Native oriented displays.

SHERWOOD FOREST NODE

The proliferation of natural and landscape features and resources in this area results in a proposed conservation

type development for this node. The development of these resources within a recreational strategy requires that these lands be first acquired to ensure the protection of the sensitive resources. This should be accomplished through such mechanisms as a " first option to purchase " which allows private lands to be acquired in a open and fair way.

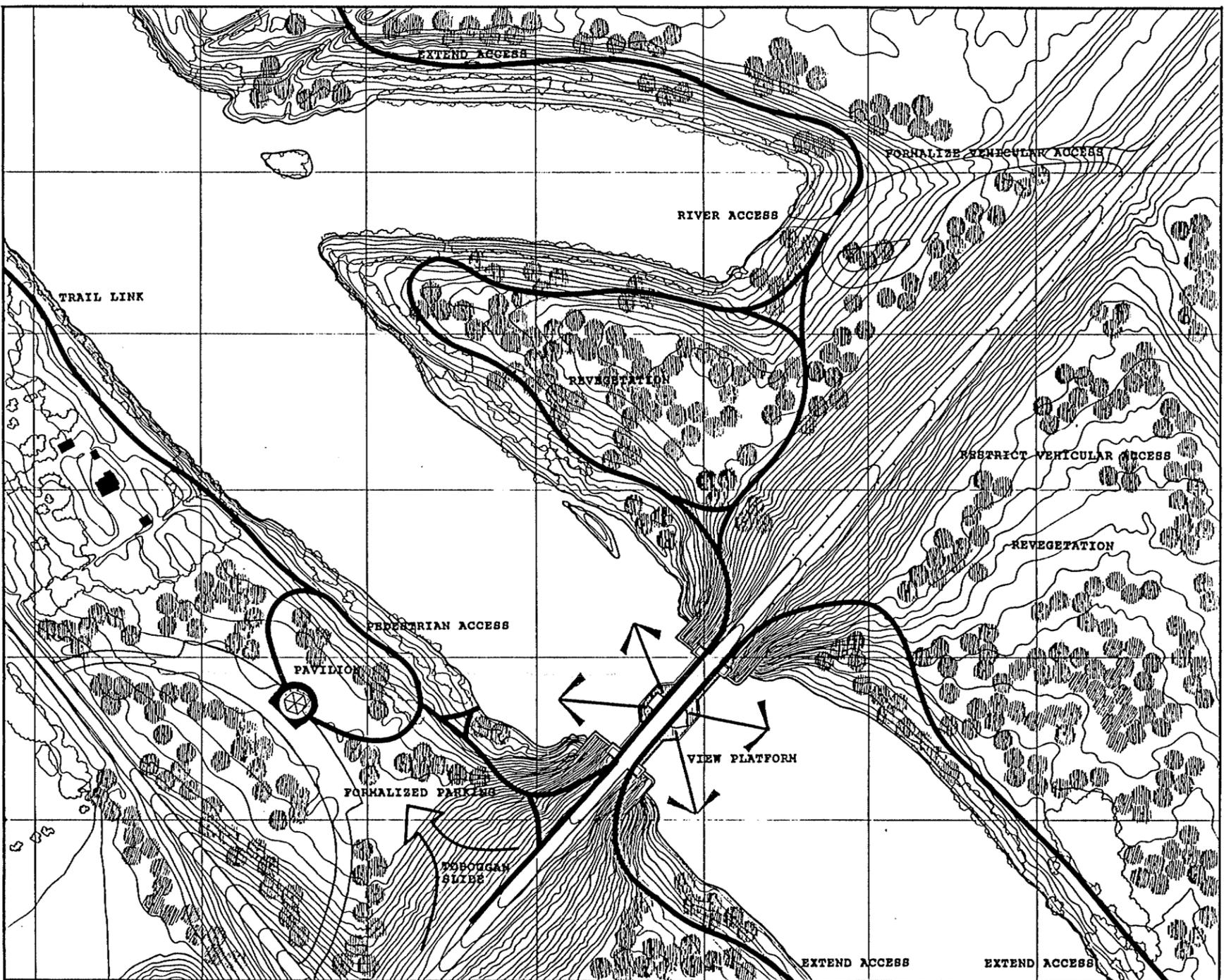
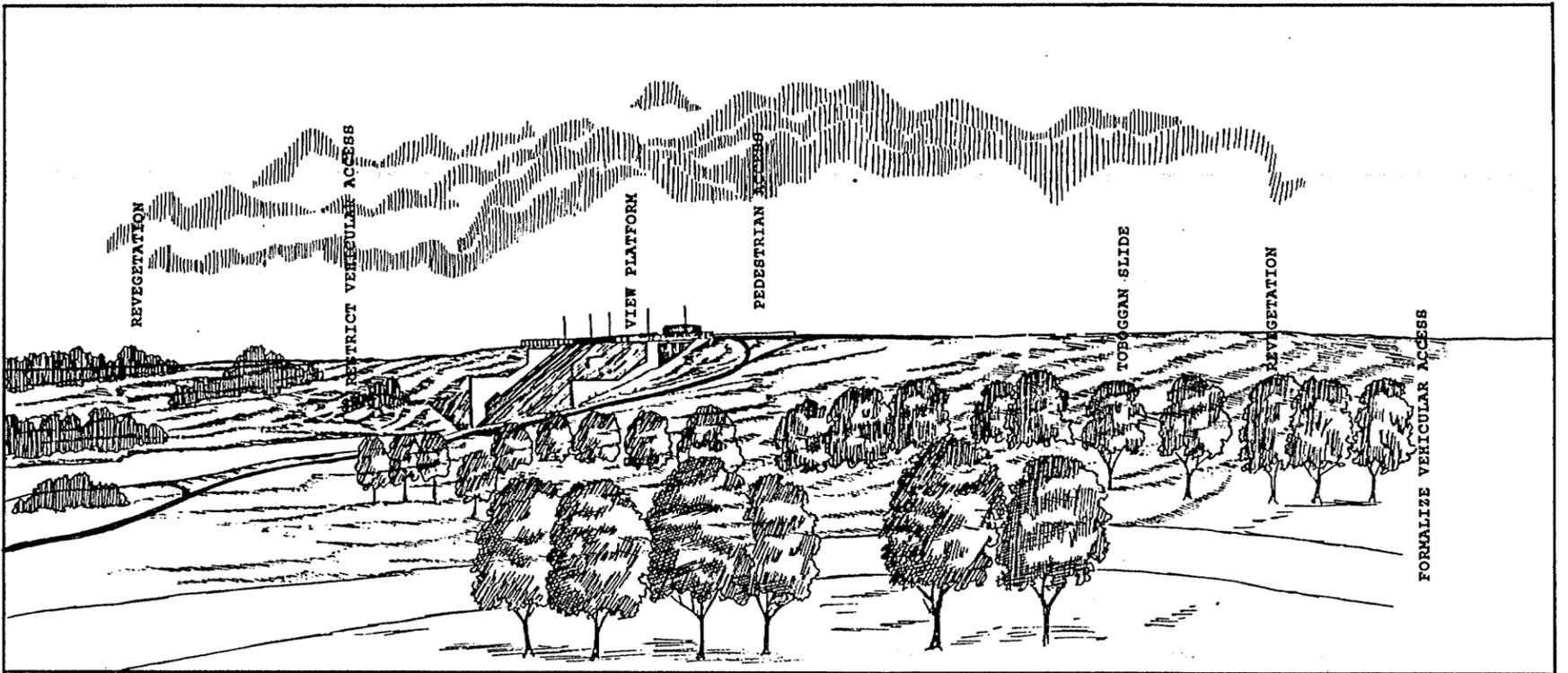
Once acquired the node would be developed as a habitat preservation area, incorporating environmental education, and an interpretive centre.

THE FLOODWAY NODE

The floodway site within this recreational strategy is developed into a recreational node. As shown in " THE FLOODWAY NODE " illustration , the access to this area is formalized through pedestrian paths and roads. The vehicular use is restricted and limited to small access roads with formalized parking. This enables the area to be utilized primarily by pedestrians and allows the landscape to be restored through reforestation. Pedestrian paths access a wide range of areas adjacent to the river providing access to both sides of the bank utilizing the control structure as a viewing area and interpretive site. The toboggan area is retained and enhanced through the provision of a pavilion for winter use.

THE MONASTERY NODE

The nodal development of the Monastery site involves



ST. NORBERT THE FLOODWAY NODE

AN EXAMINATION OF PLACE



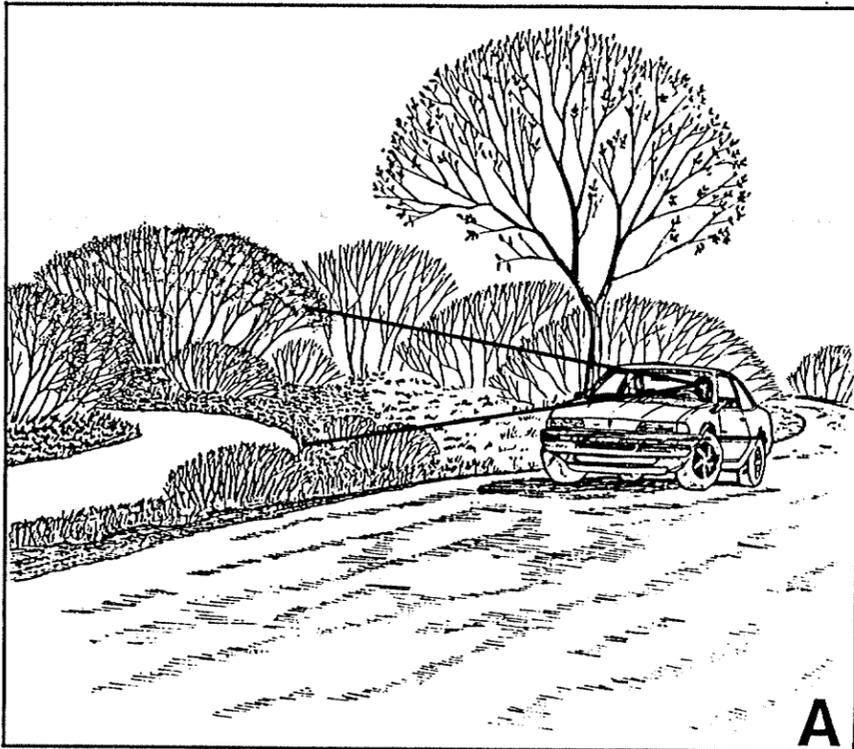
expanding its current interpretive role to include the adjacent Metis farm. The function of this node is expanded to become a link within the overall recreational system by the provision of formalized paths adjacent to the river connecting the site to the overall development. Paths extend further to off site resources such as La Barriere Park, allowing this node to become an entrance point into the recreational system.

NETWORKING

To develop a strategy for recreation within a river environment requires a number of other issues to be addressed. These components are more generalized and are referred to as Networking. These components are depicted on the " NETWORKING " illustration and refer to the following issues.

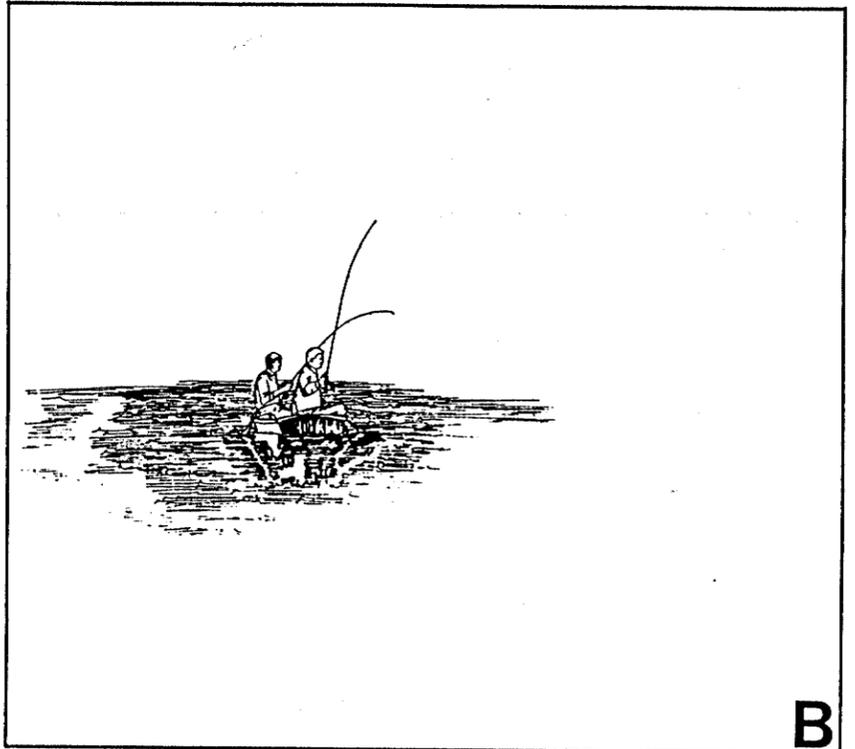
The approach corridors (illustration A) are an important component to this recreational system as they define this area as something unique from a vehicular perspective. The approach corridors within this strategy would be developed to enhance the appearance of the area. Where desirable views are apparent they are maintained and preserved. Where there are remnants of the French river lots, they are enhanced through the use of row plantings.

Recreational access to the individual rivers is encouraged (illustration B) allowing local neighborhood networks with docking facilities adjacent to recreational nodes. This allows an additional system of access that promotes the



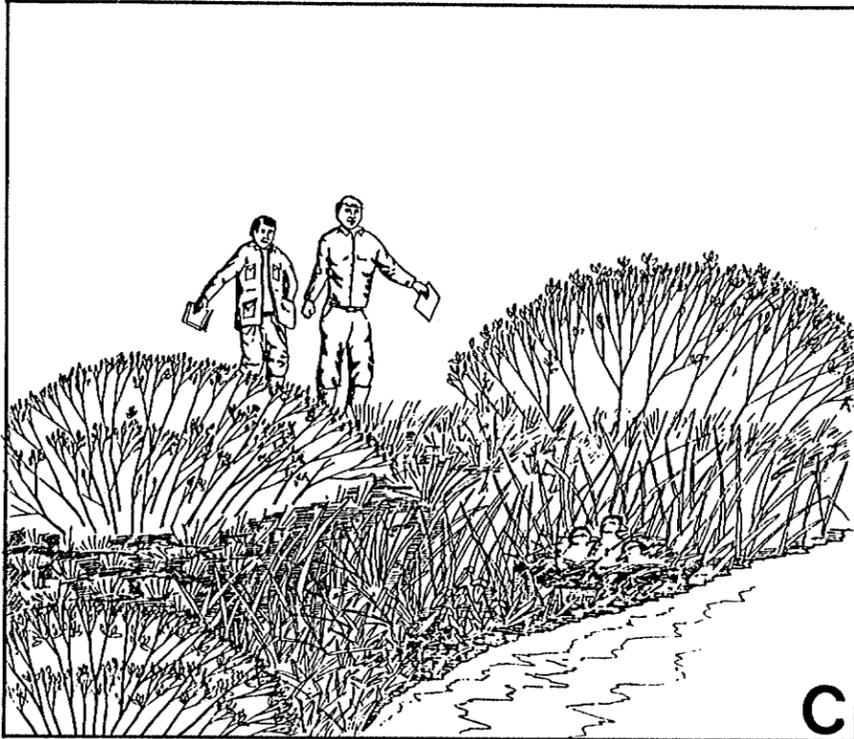
A

MAINTAINING VIEW CORRIDOR



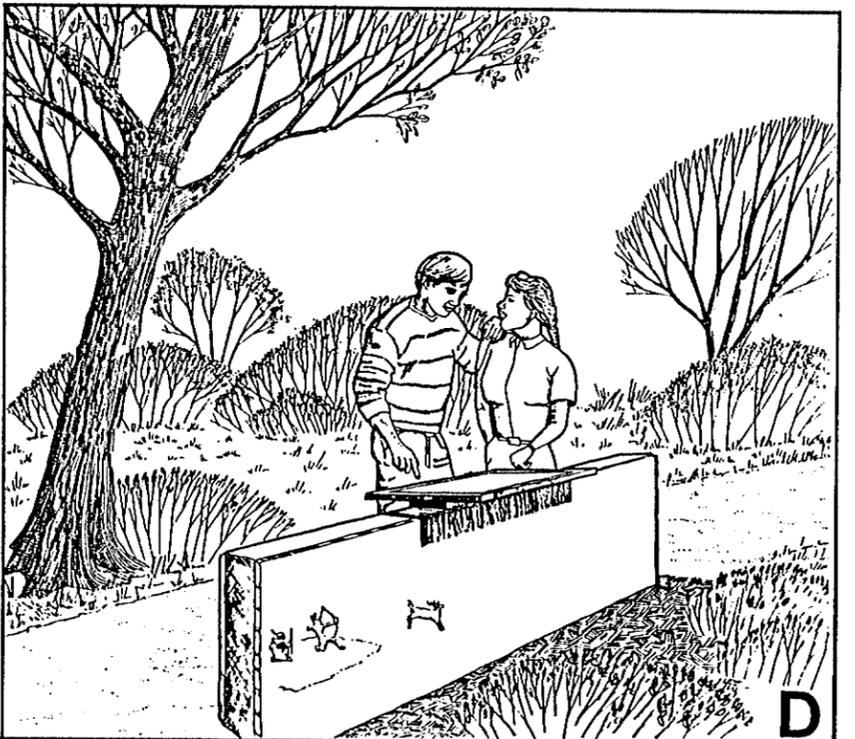
B

RECREATIONAL ACCESS TO RIVERS



C

OUTDOOR CLASSROOMS



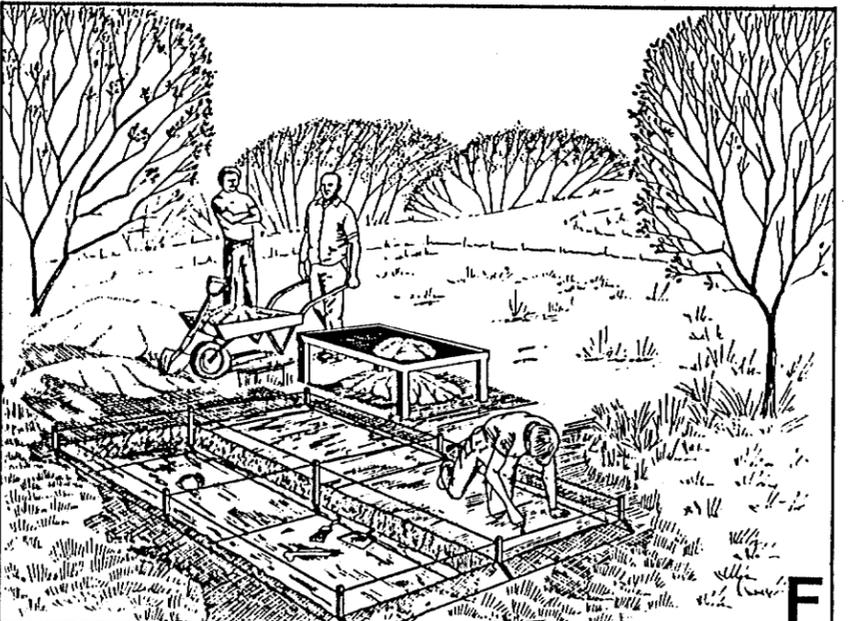
D

INTERPRETIVE DEVELOPMENTS



E

ACCESS TO RIVER ENVIRONMENT



F

PUBLIC ARCHAEOLOGICAL DIGS

ST. NORBERT
AN EXAMINATION OF PLACE

NETWORKING

rivers and enhances their use.

The proposed interpretive component of this recreational strategy is enhanced through the discovery and educational experiences available through the incorporation of outdoor classrooms connected to schools (illustration C). Outdoor education responds to the need to provide quality recreational experiences.

High quality public education programs are also an important part of this recreational strategy (illustration D). These types of facilities incorporating "state of the art" and interactive displays responding to the desire for high quality outdoor learning experiences.

Facilitating orderly growth and enforcing subdivision policies to dedicate river front lands for recreational development will allow the continued access to the river environment (illustration E).

Event programming is also a significant part of this recreational strategy. By linking events such as public archaeological digs (illustration F), rowing championships, River pageants, and cultural events, additional use can be encouraged.

CONCLUSIONS:

The St. Norbert river corridors has an enormous potential for recreational development. As a largely untouched river bottom forest containing significant historic and cultural resources, it represents a highly unique recreational opportunity.

Its representative ecological communities present a potential

opportunity for environmental education. This should be extended to include outdoor classrooms, biological research areas and ecological reserves. Within an environmental education program this natural landscape should be explored by school-age children as an extension of a science curriculum. Within this type of concept, vegetation systems could be explored with basic experiments performed on plant material and soils for such things as energy exchange, nutrient cycling, the hydrologic cycling etc. At a much higher level, these forest resources should be developed provide as scientific research area for exploration of ecological concepts and mans impact upon the landscape. Landscape systems should also be explored utilizing the natural resources within there river corridors.

On a less structured basis, the proposed interpretive program for the general public should be incorporate natural interpretive concepts within an outdoor environmental education program, presenting first hand opportunities to enlighten the public about fundamental environmental processes. These provide an opportunity to explore the natural patterns and relationships within this landscape setting. These should extend into the fields of physical geography, geology and earth history. Geographic concepts as they relate to river systems represent a significant portion of normal landscape forming processes. Running water provides the mechanism by which landscapes are formed, and the St. Norbert river corridors present a number development stages. Meanders, river terracing, slump blocks, and meander cutoffs are all present within the corridors as evidence of

ongoing geographic processes. Some of the underlying causes of the land forms are the direct result of geographic processes that occurred during and subsequent to glaciation. Evidence of these events should be explored in the materials over which the rivers flow, such as the lacustrine clays and unconsolidated glacial tills.

Learning opportunities must be extended into less formalized site investigations. Informal path linkages which access the river and the scenic aspects of the natural system could provide a unstructured way of experiencing the environment. These environmental linkages extend along the rivers themselves in order to provide direct access to this landscape through canoe routes.

Interpretive development opportunities should also encompass cultural and heritage themes. The settlement of this landscape by the French and Metis present unique opportunities to explore the artifacts within the landscape that relate to these groups, such as the French River Lots, and the various domestic structures. The prevalence of religious sites and artifacts also present opportunities for development and interpretation. There have been a number of very significant events that have taken place within this landscape which must be recognized and recreationally developed. The Native cultures which have utilized this landscape also present opportunities for interpretation.

The St. Norbert river corridors represent a collection of highly significant historic sites that represent a number of aspects of very early development within the Red River Valley. The area contains artifacts and sites that relate to

the early settlement of the region, the fur trade, the Metis and Indian cultures, and a number of different religious orders. All of these sites are important for their historic value and associations, some of which more than meet the requirements for heritage sites.

With the recreational potential of this area and the significance of its associated landscape, cultural and historic resources, a development strategy is required to balance use and resource of this landscape while protecting its integrity.

The development of these river corridors for recreational purposes encompasses a broad range of issues. Within the scope of this study the intent is to develop a strategy for recreational based upon the potential of the site. It is not the intent of this project to propose solutions for logistical problems in implementing such a recreational strategy or to solve such issues as access to private lands. Although such issues are important the intent of this project is to present a recreational development strategy based upon the resources and provide recommendations for the enhancement of natural, cultural, historic, and aesthetic qualities of the landscape.

END NOTES

1. Christian Norberg-Schulz, The Concept of Dwelling; On the Way to Figurative Architecture (New York: Rizzoli International Publications, Inc., 1984.) p.9

2. J. Brian Bird, The Natural Landscapes of Canada: A Study in Regional Earth Science, Second Edition (Toronto, Canada: John Wiley & Sons Canada Limited, 1980.) p.22

3. Elliot Coues, The Manuscript Journals of Alexander Henry and of David Thompson 1799-1814 (Minneapolis: Ross And Haines, Inc., 1897.) p.167

4. E.L. Syms, Directions in Manitoba Prehistory (Winnipeg Canada: Association of Manitoba Archaeologists and the Manitoba Archaeological Society, 1980) p.72

5. W.L. Morton The Significance of Site in the Settlement of American and Canadian Wests. (Toronto, Ontario: U of T Press, 1974) p.18

6. I.B.I.D. p.15

7. I.B.I.D. p.15

8. I.B.I.D. p.23

9. Richard D. Hurst, An exploration into the Changing landscape of the Red River Valley in Responce to the Evolving Cultures of the People of the Parish of St. Norbert Up to 1870. (Winnipeg, Canada: University of Manitoba Masters Thesis, 1982.) p.84

10. G.B. Woolsey, Historical Resources of the Red-Assiniboine: A Preliminary Analysis of their Interpretive and Development Potential (Winnipeg, Manitoba: unpublished Report Parks Canada Prairie Regional Office.) p.2

11. J.S.H. Brown, Strangers in Blood- Fur Trade Company Families in Indian Country (Vancouver B.C.: University of British Columbia Press., 1980) p.23

12. Richard D. Hurst, An Exploration into the Changing Landscape of the Red River Valley p.76

13. J.B. Tyrrell, David Thompson's Narrative of his Explorations in Western America 1784 - 1812 (Toronto, Ontario: The Champlain Society, 1916.) p.205

14. Richard D. Hurst. An Exploration into the Changing Landscape fo the Red River Valley p.78

15. A.J. Ray, Indians in the Fur Trade: Their Role as Trappers, Hunters and Middlemen in the Lands South west of Hudson Bay 1660 - 1870. (Toronto: University of Toronto Press, 1974)

16. Richard D. Hurst., An Exploration onto the Changing Landscape of the Red Rover Valley p.97
17. W.L. Morton Manitoba, A History (Toronto, Ontario: University of Toronto Press. 1957)
18. G.B. Woolsey, Historical Resources of the Red Assiniboine: A Preliminary Analysis of their Interpretive and Development Potential (Winnipeg, Manitoba: Unpublished Report, Parks Canada Prairie Regional Office) p.6
19. P.R. Mailhot, A Report on the Development of the Parish of Saint Norbert 1800 - 1912: An Overview (Winnipeg, Manitoba: Unpublished Report. 1980)
20. G.B. Woolsey, Historical Resources of the Red-Assiniboine: A Preliminary Analysis of their Interpretive and Development Potential (Winnipeg, Manitoba: Unpublished Report, Parks Canada Prairie Regional Office) p.7
21. A.J. Ray, Indians in the Fur Trade: Their Role as Trappers, Hunters and Middlemen in the Lands South West of Hudson Bay 1660-1870 (Toronto Ontario: University of Toronto Press, 1974) p.22
22. P.R. Mailhot, A Report on the Development of the Parish of Saint Norbert 1800-1912: An Overview (Winnipeg, Manitoba: Unpublished Report, 1980.) p.148
23. Patricia Arbex and Solange Chaput, The History of St. Norbert. (Winnipeg, Manitoba: Unpublished Report.
24. P.R. Mailhot, A Report on the Development of the Parish of Saint Norbert 1800-1912: An Overview (Winnipeg, Manitoba: Unpublished Report., 1980) p.153
25. W.L. Morton Manitoba, A History (Toronto Ontario: University of Toronto Press 1957.)
26. P.R. Mailhot, A Report on the Development of the Parish of Saint Norbert 1800-1912: An Overview (Winnipeg, Manitoba: Unpublished Report., 1980) p.174
27. Patricia Arbex and Solange Chaput, The History of St. Norbert. (Winnipeg, Manitoba: Unpublished Report. p. 10
28. Patricia Arbex and Solange Chaput, The History of St. Norbert. (Winnipeg, Manitoba: Unpublished Report. p. 10
29. Famous Manitoba Metis
30. Patricia Arbex and Solange Chaput, The History of St. Norbert. (Winnipeg, Manitoba: Unpublished Report. p. 12
31. Marjorie Earl, Torch on the Prairies: A portrait of Journalism in Manitoba 1859 - 1988 Winnipeg Manitoba Nor-Westerns 1988 p.18

32. Marjorie Earl, Torch on the Prairies: A portrait of Journalism in Manitoba 1859 - 1988 Winnipeg Manitoba Nor-Westerns 1988 p.18

33. Marjorie Earl, Torch on the Prairies: A portrait of Journalism in Manitoba 1859 - 1988 Winnipeg Manitoba Nor-Westerns 1988 p.18

34. Marjorie Earl, Torch on the Prairies: A portrait of Journalism in Manitoba 1859 - 1988 Winnipeg Manitoba Nor-Westerns 1988 p.20

35. Marjorie Earl, Torch on the Prairies: A portrait of Journalism in Manitoba 1859 - 1988 Winnipeg Manitoba Nor-Westerns 1988 p.21

36. D. W. Meinig, The Interpretation of Ordinary Landscapes, Geographical Essays New York: Oxford University Press 1979 p. 79

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Figure	34	Author
Figure	35	Author
Figure	36	Author
Figure	37	Author

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BIBLIOGRAPHY AND SOURCES

Arbez, Patricia and Solange Chaput, The History of St. Norbert. Winnipeg, Manitoba: Unpublished Report.

Barker & Guslits Associates Architects A Feasibility Study of the Orphanage Buildings Oblate Fathers Property 3514 Pembina Highway St. Norbert. Winnipeg, Manitoba Barker & Guslits Associates 1978.

Bird, J. Brain. The Natural Landscape of Canada: A Study in Regional Earth Science Second Edition. Toronto Canada: John Wiley & Sons Canada Limited, 1980.

Bird, R.D. Ecology of the aspen Parkland of Western Canada. Canada Department of Agriculture. Publication no. 1066 1961

Brossermainer, E.F. and C.F. Vogel Wildlife and Wildlife Habitat in the Winnipeg Region. Resources Planning, Manitoba Department of Mines, Resources and Environmental Management. 1974.

Brown, J. S. H. Strangers in Blood - Fur Trade Company Families in Indian Country Vancouver B. C.: University of British Columbia Press., 1980

Burpee, L. J. Journal and Letters of Pierre Gaultier de Varennes de La Ve'renrye and his son's The Champlain Society 1927

City of Winnipeg, Parks and Recreation Department. Muddy Waters, A Interpretive Guide to Winnipeg's Rivers. 1982.

City of Winnipeg, Interim Flood Risk Map. Winnipeg: Manitoba Department of Natural Resources, Water Resources Branch, 1980.

Coues, Elliott. The Manuscript Journals of Alexander Henry and of David Thompson 1799-1814 Minneapolis: Ross and Haines., Inc. 1897.

Comites du Contenaure de la paroisse de Saint-Norbert Contenaire de la Paroisse de St. Norbert: Kansas City Yearbook House 1957.

Dorge, Lionel. Le Manitoba Reflets d'un Passe. Saint Boniface: Les Editions du Ble, 1976.

Edwards, Yorke. Canadian Cities in Search of Nature. Proceedings on the Symposium:, Wildlife in Urban Canada. University of Guelph. 1975

Friesen, Gerald. The Canadian Prairies: A History. Toronto University Press, 1984.

Grover Sheila, Trappist Monastery A research paper submitted to the Historic buildings Advisory Committee. 1980.

Historic Resources Branch. 3514 Pembina Highway St. Norbert & Manitoba. Manitoba: Culture, Heritage and Recreation 1978.

Hamblin, W Kenneth The Earth's Dynamic Systems second edition. Minneapolis, Minesota. Burgess Publishing Co. 1978.

Historical Resources Branch. St. Norbert Heritage Park Manitoba. Winnipeg Department of Cultural Affairs and Historical Resources, 1983.

Hurst. Richard D. An Exploration into the Changing Landscape of the Red Rover Valley

Introduction a L'etude des Franco-Manitobains: Essai historique it bibliographique St. Boniface: Les Editions du Ble, 1976.

Institute of Urban Studies Community of St. Norbert:A summary profile. Winnipeg: university of Winnipeg Institute of Urban Studies.

Jackson, V.W. A Manual of Vertibates in Manitoba. Winnipeg, University of Manitoba 1975.

Kelly, M.E. Historical Resources: An Invertory of Pre 1880 Historical Resources in the City of Winnipeg., Paleo-Sciences Itegrated Ltd, for the Winnipeg Development Plan January 1980.

Les Soeurs Grises du Couvent de Saint-Norbert. 1858-1958: Couvent de saint-Norbert. Winnipeg: Hignell Printing Limited, 1958.

Macloughlin, John C. The Animals Among Us, Wildlife In The City. Penguin Books, Canada. 1978.

MacKnight, Heather. Winnipeg Rivers Conference Lecture notes on the Meewasin Experience, Unpublished handout., Oct 26 1985

Mailhot, P. R. A Report on the Development of the Parish of St. Norbert 1800 - 1912 An Overview (Winnipeg, unpublished report 1980

Manitoba Culture, Heritage and Recreation Introducing Manitoba Prehistory: Papers in Manitoba Archaeology Popular Series No.4 Winnipeg: Historical Resources 1983.

Marjorie, Earl. Torch on The Prairies, A Portrate of Journalism in Manitoba. 1859 - 1988 Manitoba 1988

Meinig. D. W. The Interpretation of Ordinary Landscapes, Geographical Essays New York: Oxford University Press 1979.

Moriyama, Raymond. River Corridor Planning Guest Lecture, Winnipeg Rivers Conference January 26, 1989.

Moriyama, Raymond. The Meewasin Valley Project: 100 Year Conceptual Masterplan Toronto Raymond Moriama Architects and Planners 1978

Morton W. L. Manitoba a History (Toronto Ontario: University of Toronto Press, 1974

Morton W. L. The Significance of site in the settlement of the American and Canadian Wests, Agricultural History 1951

Morton, Aurthor Silver, A History of the Canadian West to 1870 - 71 Toronto: University of Toronto Press 1973.

Norberg-Schulz, Christian. The Concept of Dwelling: On The way to Figurative Architecture New York , New York: Rizzoli 1984.

Odum, Eugene. Ecological Importance of the Riparial Zone., National Symposiom on Stratigies for the Protection and management of Floodplain Wetlands and other Riparian Ecosystems. Forestry Service, U.S. Department of Agriculture Washington D.C.

Oetting, Robert B. Manitoba Wildlife Heritage, A guide for Landowners. Manitoba Department of Mines, Reources, and Environmental Management, Winnipeg 1973.

Plan Winnipeg Parks and Recreation Component,. Prepared by Parks and Recreation Department March 1981.

Potyondi, Barry. A Guide to The Study of Manitoba Local History. Winnipeg: University of Manitoba Press for the Manitoba Historical Society, 1981.

Province of Manitoba, Fire Insurance plan., Manitoba Provincial Archives Winnipeg. 1917.

Ray, A.J. Indians in the Fur Trade: Their Role as Trappers, Hunters and Middlemen in the Lands South West of Hudson Bay 1660-1870 Toronto: University of Toronto Press 1974

Shiply, Nan., Road To The Forks: A History of the Community of Fort Garry. Winnipeg: Stoval-Advocate Press Ltd., 1969.

St. Boniface Archives. St. Norbert, Miscellaneous file. n.p., Winnipeg 1900-1960

St Norbert: 1980 Source City of Winnipeg, Interim Flood Risk Map 1980.

St. Norbert: 1874. Source: G. McPhillips, Plan of River Lots in the Parishes of St. Norbert and St. Vital, 1874.

Syms E.L. Directions in Manitoba Prehistory Winnipeg, Canada: Association of Manitoba Archaeologists and the Manitoba Archaeological Society 1980.

Tyrrell, J.B. David Thompson's Narrative of his Exploration in Western America 1784-1812 Toronto Ortario: The Champlain Society 1916.

Weir, Thomas R. Atlas of Winnipeg. University of Toronto Press, Toronto, Buffalo, London.

Weir, Thomas R. Atlas of Manitoba. Department of Natural Resources, Surveys and Mapping Branch, Province of Manitoba.

Winnipeg Area Characterization. Building and housing Characteristics.

Winnipeg Area Characterization. Socio-Economic Characteristics.

Woolsey, G.B. Historical Resources of the Red Assiniboine: A Preliminary Analysis of their Interpretive and Development Potential. Winnipeg: Unpublished Report Parks Canada Prairie Regional Office.

Wrigley, R.E. Animals in Manitoba. Manitoba Museum of Man and Nature, Winnipeg.