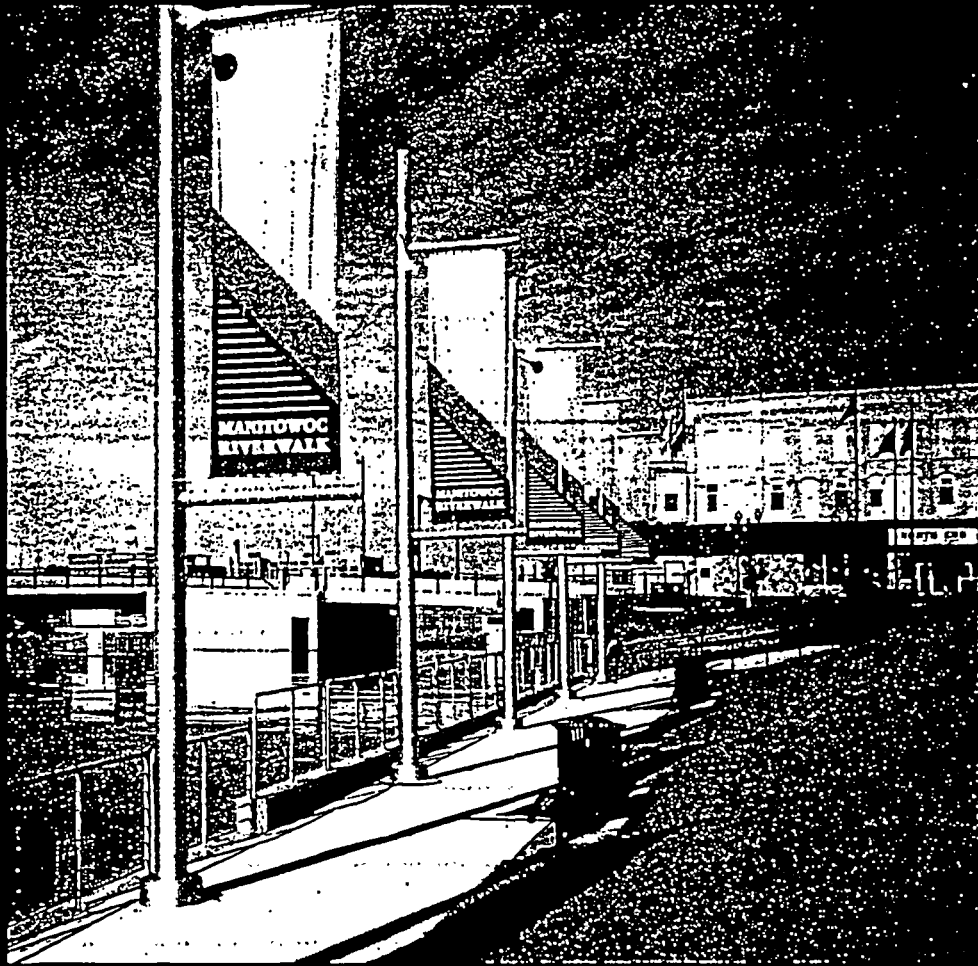


CITY OF MANITOWOC COMPREHENSIVE PLAN 1999 - 2019

Adopted 21 June 1999



CITY OF MANITOWOC COMPREHENSIVE PLAN 1999 TO 2019

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RESOLUTION

A resolution by the Common Council of the City of Manitowoc adopting the City of Manitowoc Comprehensive Plan 1999-2019 for the City of Manitowoc, Wisconsin.

WHEREAS, the Common Council of the City of Manitowoc has identified the need to update the City of Manitowoc Comprehensive Plan; and

WHEREAS, the Council had appointed the Comprehensive Plan Update Committee to guide the work of the consultant and City staff in the preparation of the Comprehensive Plan; and

WHEREAS, the Committee and the Manitowoc City Plan Commission, in a joint report filed with the Common Council dated May 3, 1999 (#99-236), recommended adoption of the City of Manitowoc Comprehensive Plan 1999-2019 dated June 11, 1999; and

WHEREAS, the Manitowoc City Plan Commission did approve and adopt the Comprehensive Plan by the attached resolution on June 16, 1999 pursuant to §62.23(3) of the Wisconsin Statutes; and

NOW, THEREFORE BE IT RESOLVED that the Mayor and Common Council does hereby approve and adopt the attached City of Manitowoc Comprehensive Plan 1999-2019 pursuant to §62.23(3) of the Wisconsin Statutes.

INTRODUCED JUN 21 1999 T. F. J.

ADOPTED JUN 21 1999

APPROVED 6.26.99

Kevin M. Crawford
KEVIN M. CRAWFORD, MAYOR

6.21-99.
Committee recommends adoption of resolution.
T. F. J. Larry DeGra
Henry Henry

PLAN COMMISSION

RESOLUTION NO. 1-99

A resolution by the Manitowoc City Plan Commission adopting the Comprehensive Plan for the City of Manitowoc, Wisconsin.

WHEREAS, the Common Council of the City of Manitowoc has identified the need to update the City of Manitowoc Comprehensive Plan; and

WHEREAS, the City of Manitowoc has engaged the consulting firm JJR, Inc. (formerly Discovery Group, Ltd.) of Madison to work with the City staff to prepare a City of Manitowoc Comprehensive Plan for the City of Manitowoc 1999-2019; and

WHEREAS, the Mayor and Council have appointed a Comprehensive Plan Update Committee to guide the work of the consultant and City staff in the preparation of a draft Comprehensive Plan; and

WHEREAS, the Committee on April 21, 1999 recommended Plan Commission and Council adoption of the attached Plan after conducting a public hearing on the Plan before both bodies; and

WHEREAS, a public hearing on the draft Comprehensive Plan was legally noticed and held on June 7, 1999;

NOW, THEREFORE BE IT RESOLVED that pursuant to §62.23(3) of the Wisconsin Statutes, the Manitowoc City Plan Commission adopts the City of Manitowoc Comprehensive Plan 1999-2019 dated June 11, 1999.

BE IT FURTHER RESOLVED, that the Manitowoc City Plan Commission recommends approval and adoption of the City of Manitowoc Comprehensive Plan 1999-2019 by the City Council.

Adopted: June 16, 1999



Steven R. Erdmann, Acting
Chairman, Manitowoc City Plan
Commission

ATTEST:

I, Jennifer Hudon, do hereby certify that the above is a true and correct copy of a resolution passed by the Manitowoc City Plan Commission at a regular meeting thereof held on June 16, 1999.

Date: 6/16/99



Jennifer Hudon, City Clerk

ACKNOWLEDGEMENTS

CITY OF MANITOWOC COMMON COUNCIL

Kevin M. Crawford, Mayor
Steven R. Erdmann, President
Larry J. Bergner
James N. Brey
Thomas M. Frieder
Jan C. Graunke
William J. Hennessy
Gordon F. Kopetsky
James D. McDonald
Maureen B. Stokes
Sally Zimmerman

CITY OF MANITOWOC PLAN COMMISSION

Kevin M. Crawford, Mayor/Chairman
Claude Barta
David Diedrich
Steven R. Erdmann
William Handlos
Daniel Hornung
Larry Maloney
Robert Senglaub

CITY OF MANITOWOC COMPREHENSIVE PLAN UPDATE COMMITTEE

Kevin M. Crawford, Mayor
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Jeffrey Check
Nicolas Doneff
Thomas Frieder, Chairman, Streets & Sanitation Committee
William Handlos, Director of Public Works/City Engineer
Daniel Hornung
Gordon Kopetsky
Thomas Lambert, County Board Supervisor
Larry Maloney, Director of Building Inspection
Jim McCabe, Manitowoc Public Utilities
Louis Norteman
Colin Rayford
Mark Ring
Jeffrey Schulz, Director of Buildings & Grounds, MPSD
Robert Senglaub
Kathryn Smith, Family Living Agent, UW-Extension

EXECUTIVE SUMMARY

The following are the key action recommendations of the City of Manitowoc Comprehensive Plan 1999 to 2019:

1. The City of Manitowoc should focus its near-term planning, capital improvement budgeting, and utility programs toward providing adequate infrastructure to serve business development in the I-43/USH 151 (Calumet Avenue) interchange area and the area to the west. Land in the vicinity of the I-43/USH 151 interchange is expected to be the primary commercial development district over the next 10 years.
2. The City should expand the I-43 Industrial Park. Portions of the expansion area should be designed for "office-related" facilities and ancillary businesses to support light industrial uses.
3. The City should establish a dialog with the adjoining townships with regard to establishing joint development criteria, agreements for right-of-way dedications, official mapping, and limitations on lot size. It is important to prevent haphazard and unplanned development in peripheral areas that would make future extension of utilities and development at urban densities difficult and more costly.
4. The Manitowoc County Health Care Center (MCHCC) site should be redeveloped for a combination of commercial, institutional, and office development uses.
5. The City of Manitowoc and Manitowoc County should cooperatively plan for road and other infrastructure improvements in peripheral areas that are currently outside the City limits, but are likely to be annexed to the City in the future as the land is developed.
6. The City should restructure its approach to infrastructure financing toward an "area assessment" basis rather than assessing major improvements on a frontage-foot basis. Under an "area assessment" policy, the City would install the necessary infrastructure and then assess back the improvement costs as development occurs in the service area.
7. The City should plan for the future extension of utilities to serve the I-43/STH 42 (Waldo Boulevard) interchange area. This is an undeveloped interchange that has the potential to become a regional economic development site in the future. Potential uses of the interchange area include a major corporate office, insurance facility, or other office-type facility with I-43 exposure. The City should work with Manitowoc County and the Town of Manitowoc Rapids to prevent premature development on private septic systems that would limit future development potential of the interchange area.
8. The City should construct major sanitary sewer system improvements that will be needed to serve future growth areas. These improvements include the Viebahn Street Interceptor Sewer to serve the development areas west of I-43 and the Manitowoc River Interceptor Sewer to serve the northwest part of the City's planning area.
9. Calumet Avenue should be improved and beautified from the I-43 interchange eastward to So. 26th Street. Beautification should include burying overhead utilities, widening terrace areas, renovating curbs and sidewalks, installing new overhead lighting fixtures, and planting street trees. Concurrently, site design, landscaping, and signage standards should be established to help improve the appearance of private development along the corridor. The Calumet Avenue corridor is the main access between the I-43/USH 151 interchange area and downtown Manitowoc. The corridor is the primary "point of entry" for visitors to the City.

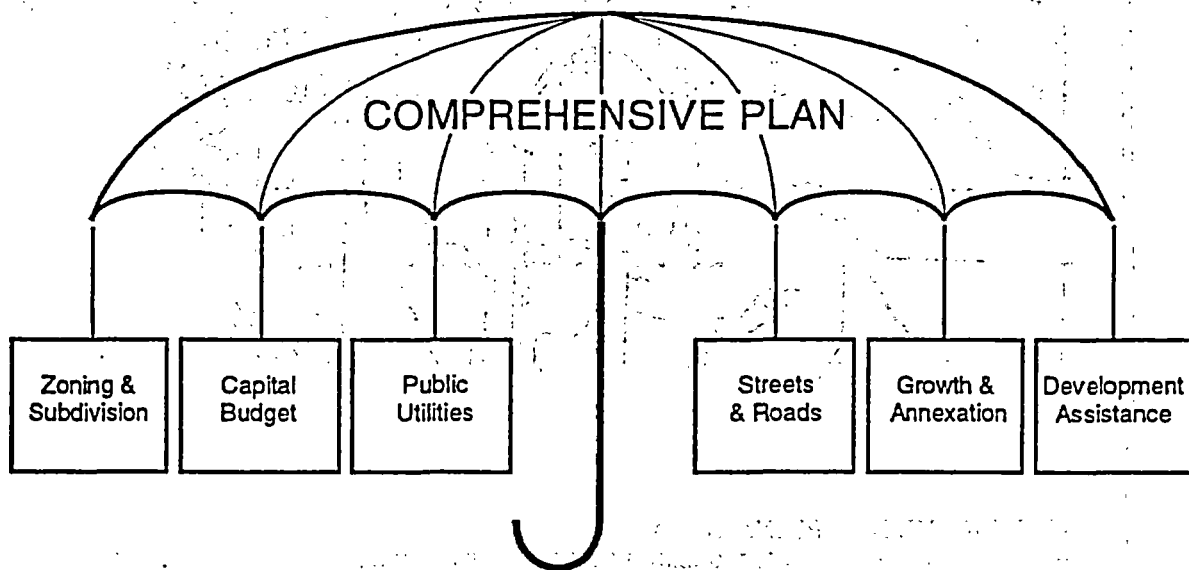
1. INTRODUCTION

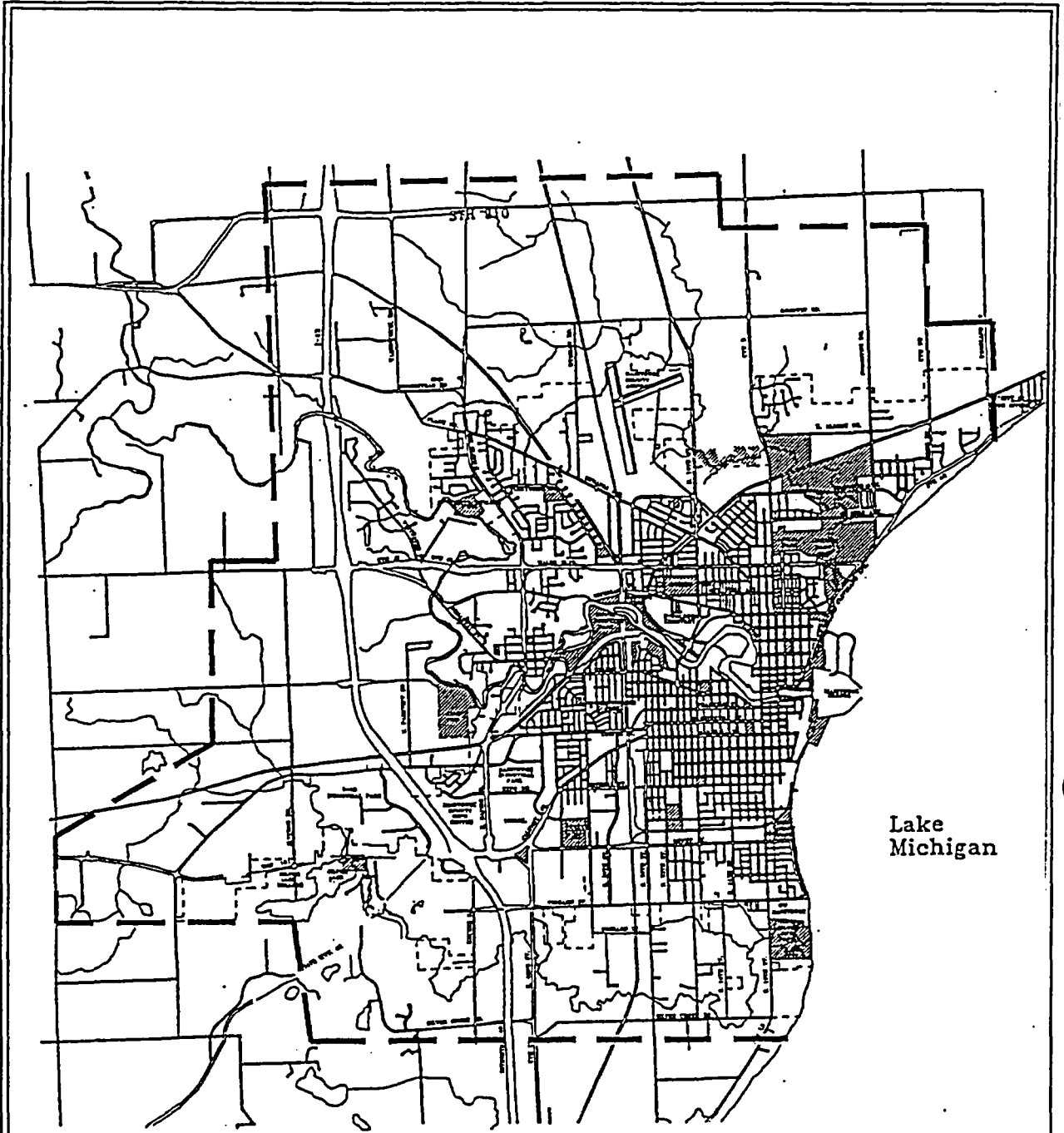
1.A. PURPOSE

The City of Manitowoc Comprehensive Plan 1999 - 2019 is a guide for elected and appointed officials, staff, and the general public to manage and direct orderly growth and development in the Manitowoc area. The plan is a long-range policy document that will serve as a guideline for a wide variety of public and private sector decision making. The plan meets all of the statutory requirements for a "Master Plan" as defined by Wisconsin Statutes ss. 62.23(3).

This plan is intended to provide new guidelines for growth and development for the next 20-year planning period. The last comprehensive plan for the City of Manitowoc was prepared and adopted in 1984.

Plans of this nature function as an "umbrella document" guiding a variety of more specific implementation measures. Unlike a municipal ordinance, the Comprehensive Plan is an advisory document and not a regulatory tool. Implementation of the plan will require its consistent use to guide decisions with respect to a wide range of public actions, including zoning and subdivision approvals, annexations, housing programs, and economic development assistance. The goals, objectives, and policies in the Comprehensive Plan are intended to be the foundation for a variety of specific programs and actions implemented by both the public and private sectors. The diagram below illustrates some of the principal means by which the plan may be implemented.





Lake Michigan

MANITOWOC URBAN PLANNING AREA
——— MANITOWOC URBAN PLANNING AREA BOUNDARY



URBAN PLANNING AREA
MANITOWOC, WISCONSIN

2. COMMUNITY INPUT AND INVOLVEMENT PROCESS

Preparation of this Comprehensive Plan has been a 24-month process and has involved broad-based citizen input and involvement by a wide variety of community leaders. A 17 member Steering Committee, including a diverse cross-section of both public and private community leaders, was established as the policy body guiding the plan's preparation.

2.A. COMMUNITY OPINION SURVEY

In early July 1997, community opinion questionnaires were mailed to all households in the City of Manitowoc. The mailing addresses were based on the Manitowoc Public Utilities billing records. Additional surveys were also available at the City's Planning Department for those who did not receive a mailed survey. The survey questions centered on a variety of land use, growth, and development issues in the community.

Of the 14,187 questionnaires that were distributed, 3,920 were completed and returned; a 27.6 percent response rate. In addition to the responses to structured survey questions, many survey respondents submitted supplemental comments on a variety of community issues. The tabulated survey results and supplemental comments have been assembled in an addendum report to this plan that is available for review at the City Planning Department.

The information provided by the community opinion survey responses has been used by the Steering Committee, staff, and consultant team to help establish the community goals and objectives expressed in this plan.

The key findings of the community opinion survey include the following:

- 92.8 percent of the respondents believe the City of Manitowoc should continue to promote the Manitowoc area for new business and industrial development; 4.7 percent disagree with this position; 2.6 percent have no opinion.
- 83.4 percent of respondents believe the City should continue to utilize funds collected from motel and hotel room taxes to promote tourism development in the Manitowoc area; 9.7 percent disagree with this position; 6.9 percent have no opinion.
- 57.4 percent of the respondents believe the City of Manitowoc should connect and construct the two sections of Magnolia Avenue on the north side of the City to provide a new east-west arterial street corridor north of Waldo Boulevard; 17.8 percent disagree with this position; 24.7 percent have no opinion.
- 74.6 percent of the respondents believe the City should consider charging developers increased fees to cover the costs of off-site improvements, such as street and utility system improvements, associated with their developments; 13.2 percent disagree with this position; 12.2 percent have no opinion.
- 79.8 percent of the respondents believe the City should more strictly enforce building and property maintenance codes; 10.9 percent disagree with this position; 9.4 percent have no opinion.

2.B. INTERVIEWS WITH COMMUNITY LEADERS

JJR staff conducted formal interviews in early October, 1997 with 36 business and community leaders representing different social and economic interest groups in the community. The interviews were 1-hour sessions conducted at City Hall. Approximately half of the interviews were conducted as part of a 3-day community planning workshop. The remaining interviews were conducted in a supplemental series of meetings in late October, 1997.

At the same time, community workshops were held to provide the general public with access to the concepts being considered. These "open house" planning sessions at City Hall were a forum to present background data, discuss community planning alternatives, and present preliminary concept plans and design sketches illustrating key planning recommendations.

The key findings and needs identified in the interviews with community leaders include the following:

- Improve coordination and cooperation between the City of Manitowoc, Manitowoc County, and the adjoining towns.
- Improve the infrastructure and aesthetics of the Calumet Avenue corridor and the I-43 interchanges as the primary retail and business development areas.
- Continue to encourage industrial development in Manitowoc County, and expand the City's industrial parks.
- Diversify the industrial base of the community by attracting more "white-collar" employers.
- Provide affordable housing.
- Provide more facilities for youth recreation, particularly in areas that serve lower income populations.
- Encourage major employers in the Manitowoc area to work with City and other social service providers regarding housing needs and social services available in the community.
- Continue to revitalize downtown and the lakefront as a tourism-oriented destination area.
- Coordinate tourism promotion and economic development efforts with other communities in Manitowoc County.
- Provide improved worker training and education.
- Review infrastructure and utility assessment policies.
- Work with area developers to investigate ways to keep residential lots and housing affordable.
- Provide more bicycle and walking trails in the community.

Priority Action #3

The City should establish a better dialog with adjoining townships in regard to establishing development criteria, agreements for right-of-way dedications, official mapping, and limitations on lot size. It is important to prevent haphazard and unplanned development in peripheral areas, that would make the future extension of utilities and development at urban densities difficult and more costly.

6	_____	Highest Priority 1
5	_____	2
2	_____	3
1	_____	4
0	_____	Lowest Priority 5

Weighted Average = 1.86

Priority Action #4

The Manitowoc County Health Care Center (MCHCC) site should be redeveloped for commercial and/or professional and office development.

7	_____	Highest Priority 1
3	_____	2
1	_____	3
3	_____	4
0	_____	Lowest Priority 5

Weighted Average = 2.00

Priority Action #5

Where feasible, the City of Manitowoc and Manitowoc County should cooperatively plan for County roads and other infrastructure improvements in peripheral areas, that are currently outside the City limits, but are likely to be annexed to the City in the future as the land is developed.

6	_____	Highest Priority 1
3	_____	2
4	_____	3
0	_____	4
1	_____	Lowest Priority 5

Weighted Average = 2.07

Priority Action #9

Calumet Avenue should be improved and beautified from the I-43 interchange eastward to So. 26th Street. Beautification should include burying overhead utilities, widening terrace areas, renovating curbs and sidewalks, installing new overhead lighting fixtures, and planting street trees. Concurrently, site design, landscaping, and signage standards should be established to help improve the appearance of the corridor. The Calumet Avenue corridor is the main access between the I-43 interchange area and downtown Manitowoc. The corridor is the primary "point of entry" for visitors to the City.

3	_____	Highest Priority 1
4	_____	2
4	_____	3
3	_____	4
0	_____	Lowest Priority 5

Weighted Average = 2.50

Priority Action #10

The City should complete Magnolia Avenue so that there is a more efficient east-west thoroughfare to serve the north side of the City. Other longer-term street improvements include extension of Viebahn Street to STH 42, completion of So. 26th Street between Dewey and Viebahn Streets, extension of East Albert Drive between N. 8th and N. 18th Streets, and extension of Parkview Road north to STH 42 (Waldo Boulevard).

2	_____	Highest Priority 1
5	_____	2
3	_____	3
4	_____	4
0	_____	Lowest Priority 5

Weighted Average = 2.64

Priority Action #11

The City should construct a new City Hall in the downtown area. The selection of a site and design of the facility should take into consideration the City Hall's contribution to overall downtown revitalization.

3	_____	Highest Priority 1
4	_____	2
3	_____	3
2	_____	4
2	_____	Lowest Priority 5

Weighted Average = 2.70

Priority Action #15

Manitowoc County and the City of Manitowoc should begin to plan for the long-term relocation of the County's Expo facility to a less developed and less valuable site. The Expo site should ultimately be redeveloped for commercial development.

0 _____ Highest Priority 1
0 _____ 2
2 _____ 3
2 _____ 4
10 _____ Lowest Priority 5

Weighted Average = 4.57

3. BACKGROUND SETTING

3.A. GENERAL DESCRIPTION OF THE MANITOWOC AREA

The City of Manitowoc is a prosperous city with a 1998 population of approximately 34,334. Manitowoc is located 80 miles north of Milwaukee and 38 miles south of Green Bay. The City is on the western shore of Lake Michigan and is served by I-43, which provides a direct connection to the Milwaukee and Chicago metropolitan areas. The City of Manitowoc is the county seat, and the largest community in Manitowoc County. The area of the City as of November, 1998 was 16.5 square miles.

Manitowoc is recognized by both residents and visitors as a high "quality of life" community. The City's location on the lakeshore offers unique aesthetic and recreational amenities. The City's quiet neighborhoods, with excellent parks and schools, help make the area particularly attractive as a community in which to raise families. Visitors to the area are generally impressed by the neatness and tidiness of the community, and the excellent condition of the housing stock. In recent years, many families seeking a higher quality of life and a safe community to raise families have moved to Manitowoc from larger metropolitan areas.

The Manitowoc area is characterized by a diversified economy, with the highest concentrations of employment in manufacturing and basic industries, including fabricated metals, electrical and non-electrical machinery and equipment, and food and kindred products. The largest manufacturing employers in the community include Mirro Company (aluminum products), Dayco-Eastman (hose couplings, fittings, and assemblies), Manitowoc Company (cranes, ice cube machines), Federal Mogul (piston rings), Wisconsin Aluminum Foundry (aluminum, brass and bronze castings), and KI - Manitowoc (ergonomic office furniture systems).

* During the 1980's, the Manitowoc area along with many other communities in the Upper Midwest experienced a severe recession and a period of stagnant growth and development. Several of the larger industries down-sized and went through major restructuring; resulting in the loss of over 4,000 higher wage jobs to the area. Since 1990, the area has seen a steady reversal of trends as the recession has receded, and the economy has rebounded. Strategic public investments have helped the City experience steady population growth since 1990, resulting in the expansion and diversification of its economy. The City and businesses in the community have formed partnerships to help existing businesses expand and attract new businesses into the area. The City's investment in 2 major industrial parks has provided the opportunity for local industry to expand in a controlled environment, and has helped attract new businesses to the area.

While manufacturing remains the strongest sector of the economy, the economic base of the Manitowoc area has diversified in recent years. There are over 40 independent manufacturing companies in Manitowoc with over 50 employees, and many smaller industries producing a broad range of goods and services. As the area has grown, the demand for more diversified and higher quality tourism and retail services has increased. Health care, professional services, and information-based businesses are other areas where the City expects to continue to grow and expand over the next decade.

Tourism is an important component of the economy for the lakeshore area. Much of the development in downtown Manitowoc over the past several years has focused on serving tourists. Manitowoc's proximity to Chicago and Milwaukee provides the opportunity for the community to become a major weekend and vacation destination area. The City's location as the western terminus for the Lake Michigan Carferry also offers opportunities for expanded tourism development.

Sherman Creek Drainage Basin

Sherman Creek is a minor tributary basin to the Manitowoc River. The basin is located in the central portion of the City and extends westward on either side of Custer Street to I-43. Most of the basin is fully developed. The creek is almost completely enclosed in storm sewers.

The general topography is gently rolling to flat.

Hans Creek Drainage Basin

The Hans Creek drainage basin includes most of the south side of the City, north of Viebahn Street. The creek discharges into Lake Michigan at Red Arrow Park. Hans Creek is formed from headwaters near the Manitowoc County Health Care Center and flows in a generally southeastwardly direction between Division and Viebahn Streets.

Much of the creek is enclosed in storm sewers. The only remaining open portions of the creek are the retention basin at So. 35th and Dewey Streets, and the headwaters of the creek on the grounds of the Manitowoc County Health Care Center.

The terrain in the basin ranges from gently rolling to flat.

Silver Creek Drainage Basin

The Silver Creek drainage basin lies in the southern and southwestern portion of the Manitowoc planning area. Silver Creek drains the expansion area for the I-43 Industrial Park and Silver Lake College area. The creek discharges into Lake Michigan at Silver Creek Park on the City's south side.

The terrain of the Silver Creek drainage basin ranges from gently rolling along the lower reaches of Silver Creek to hilly in the lake district south of USH 151. There are numerous pockets of wetland and poorly drained lowland in the lower part of the basin between Viebahn Street and Silver Creek Road. The "lake district," west of I-43, contains several small lakes that drain internally. The largest lake is Silver Lake, which drains directly into Silver Creek. North of USH 151, the terrain is gently rolling. The basin changes to very flat terrain in the agricultural area west of So. Alverno Road.

Forget-Me-Not Creek Basin

The Forget-Me-Not Creek basin is a small drainage basin located in the extreme northeasterly part of the Manitowoc Urban Planning Area. The creek begins as a substantial wetland area located west of Woodland Drive and north of Goodwin Road. The creek flows in a southeasterly direction, and discharges into Lake Michigan northeast of the Manitowoc - Two Rivers city limits. The terrain in the basin is extremely flat. The majority of the drainage system consists of ditches constructed to drain farmland.

Calvin Creek Basin

Calvin Creek drains a large basin that includes a portion of the extreme southern part of the Manitowoc planning area south of Silver Creek Road in the Town of Newton. Calvin Creek flows from headwaters near Hartlaub Lake to Lake Michigan. The mouth of Calvin Creek is located approximately 1 mile south of the mouth of Silver Creek.

EROSION HAZARD AREAS

There are a number of erosion hazard areas along the Lake Michigan shoreline and along the bluffs of the Manitowoc River.

The most severe erosion damage has occurred along approximately 2,500 feet of bluff adjacent to Lakeside Boulevard on the southeast side of the City. The bluff has been eroded by wave action, most notably during the period of high water levels in the mid-1980's. If the area is exposed to higher lake levels, part of the roadway and utilities east of Lakeside Boulevard are in danger of further damage due to continued erosion and lack of slope stability.

Other potential Lake Michigan erosion hazard areas are along Memorial Drive on the northeast side of the City.

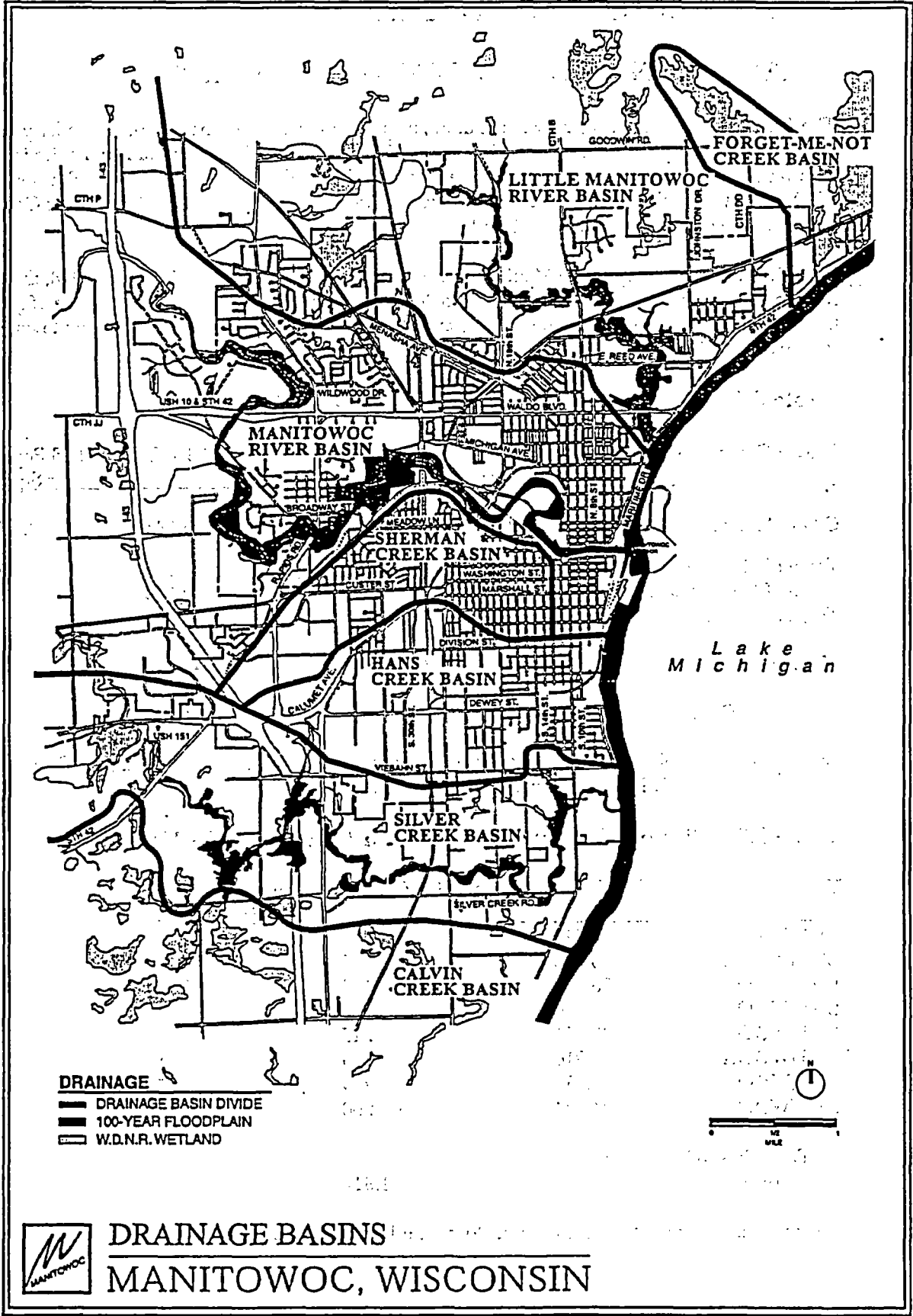
On the Manitowoc River, the most severe erosion hazard areas are west of Water Street and in Henry Schuette and Riverview Parks.

CLIMATE AND AIR QUALITY

The City of Manitowoc has an average yearly temperature of 45 °F. Average daytime winter temperatures are 29 °F. The average daytime summer temperature is 77 °F. The average annual rainfall is 29 inches, and the average snowfall is 54 inches. The growing season is 136 days.

Micro-climatic differences in temperature and humidity contribute to the settlement pattern in the area. Many long-time residents of the Manitowoc area have a strong preference for living inland from the lakeshore. There is a sharp decline in summer air temperature and higher moisture near the lakeshore. Homebuilders in the Manitowoc area attribute the homebuyer preference for the warmer micro-climate, for the growth and development in the western and northwestern part of the City.

Manitowoc is classified as a "moderate nonattainment" area pursuant to the 1990 Federal Clean Air Act. This designation has the affect of potentially subjecting certain businesses to stricter air quality compliance requirements.



3.C. DEMOGRAPHIC PROFILE

POPULATION GROWTH TRENDS 1970 to 1998

The City of Manitowoc has experienced dramatic population growth since 1990, particularly in contrast to the declining population between 1970 and 1990. Like many other older industrial cities in the Upper Midwest, Manitowoc went through a severe recession during the early to mid-1980's. Between 1970 and 1990, the City population declined from 33,430 to 32,521. During this period, Manitowoc County's population declined from 82,294 to 80,421.

Since 1990, the economy of the Manitowoc area has rebounded. Between 1990 and 1998, the City of Manitowoc's population grew from 32,521 to 34,334, representing an average annual rate of growth of 0.70 percent. During the same period, the average annual growth rates in the adjoining towns ranged from 0.35 to 0.63.

Table 3.1 Historic Population Trends 1970-1998

Unit of Government	1970 Census	1980 Census	1990 Census	1998 WDOA	1998 Population Per Sq. Mile
City of Manitowoc	33,430	32,547	32,520	34,334	2,159
Town of Manitowoc	1,258	1,177	936	986	135
Town of Manitowoc Rapids	3,552	3,186	2,560	2,672	91
Town of Newton	<u>2,256</u>	<u>2,332</u>	<u>2,261</u>	<u>2,342</u>	<u>68</u>
Manitowoc Area	40,496	39,242	38,277	40,334	463
Manitowoc County	82,294	82,918	80,421	84,434	141

Source: Demographic Services Center, Wisconsin Department of Administration (WDOA), 1998 and the City of Manitowoc Planning Department.

Table 3.2 City of Manitowoc Population Change 1990 - 1998

Year	Population	Population Change	Percent Increase From Previous Yr.
1990 Census	32,520		
1/92 (WDOA)	33,278	758	2.33
1/93 (WDOA)	33,380	102	0.30
1/94 (WDOA)	33,546	166	0.49
1/95 (WDOA)	33,761	215	0.64
1/96 (WDOA)	33,910	149	0.44
1/97 (WDOA)	34,134	224	0.66
1/98 (WDOA)	34,334	<u>200</u>	<u>0.59</u>
TOTAL CHANGE			
1990 - 1998		1,814	5.55%

Source: Demographic Services Center, Wisconsin Department of Administration, 1998.

AGE DISTRIBUTION AND MEDIAN AGE

The City of Manitowoc, along with many other communities in Wisconsin, is experiencing shifts in age distribution that will have a significant impact on housing and other aspects of development over the next 2 decades. One of the key factors affecting housing in the Manitowoc area is the gradual aging of the population. The City of Manitowoc has a significantly older population than the State of Wisconsin as a whole. In 1990, persons 65 and older represented 19.8% of the population in the City of Manitowoc compared to 13.3% for the State of Wisconsin as a whole.

Over the past 3 decades, there has been a gradual increase in the percentage of population 65 and older in the City of Manitowoc. The percentage has increased from 17.6% in 1980 to 19.8% in 1990. This age group is projected to increase to 20.4% by the year 2000.

The percentage of elderly is expected to continue to climb through the planning period and beyond. This will result in a greater demand for elderly-oriented housing and care facilities. It will also put increasing pressures on the labor force, in that a declining percentage of the population will be available to participate in the labor pool.

Table 3.5 Age Distribution - City of Manitowoc

<u>Age Group</u>	<u>1980 Census</u>	<u>1990 Census</u>	<u>2000 Projection</u>
Under 18	29.0%	23.9%	22.7%
18 to 64	53.4%	56.2%	56.9%
65 and over	17.6%	19.8%	20.4%

Sources: Census of Population and Housing, 1980 - 1990.
City of Manitowoc Planning Office, February, 1997.

diverse student body since many of the immigrant groups tend to be younger families, and have a higher proportion of school-age children than the older more established ethnic and racial groups.

Table 3.7 Race and Ethnicity - City of Manitowoc

<u>Race/Ethnicity</u>	<u>1990 Census</u>	<u>1996 Estimate</u>	<u>2000 Projection</u>
White	95.66%	95.25%	94.87%
Black	0.21%	0.29%	0.32%
American Indian	0.56%	0.36%	0.21%
Asian/Pacific Islander	2.46%	3.00%	3.45%
Hispanic	1.12%	1.10%	1.14%

Source: City of Manitowoc Planning Office, February, 1997.

HOUSEHOLD OCCUPANCY PROFILE

Based on a 1996 estimate, approximately 65.6 percent of the households in the City are owner-occupied and 34.4 percent are renter-occupied. Nearly all of the owner-occupied units are single-family detached homes. Most of the rental units are apartments or duplexes. Approximately 993 persons, or 2.9 percent of the total population in the City, live in nursing homes or extended care facilities.

Approximately 56.46 percent of the households are occupied by married couples. Of the total households, 28.68 percent have 1-person per dwelling unit, 32.93 percent have 2-persons per dwelling unit, and 38.39 percent of the households have 3 or more household members.

The average number of persons per household in the City is 2.36.

The average household income is \$37,009 dollars.

Table 3.8 Adult Marital Status

Single Male	12.85%
Single Female	10.86%
Married	56.46%
Previously Married Male	5.53%
Previously Married Female	14.30%

Source: City of Manitowoc Planning Office, February, 1997.

Table 3.13 Household Income

<u>Household Income</u>	<u>1996 Estimate</u>
\$150,000 or More	1.98%
\$100,000 to \$149,999	2.30%
\$75,000 to \$99,999	2.87%
\$50,000 to \$74,999	11.82%
\$35,000 to \$49,999	19.21%
\$25,000 to \$34,999	17.67%
\$15,000 to 24,999	20.65%
\$5,000 to \$14,999	21.47%
Under \$5,000	2.04%
Average Household Income (Pre-Tax)	\$37,009
Median Household Income (Pre-Tax)	\$28,311

Source: City of Manitowoc Planning Office, February, 1997.

3.D. HOUSING PROFILE

As of January 1, 1997, there were approximately 14,934 units of housing in the City of Manitowoc. Approximately 57 percent of the total housing stock is detached single-family housing, 36.9 percent multifamily or duplex, and 4.2 percent mobile or manufactured homes.

Table 3.14 Housing Types

All Housing Units	Detached Single-Family Units	Duplex and Multi-Family Units	Mobile and Manufactured Homes	Group Living Units
14,934	8,505	5,522	622	285

Note: Group living units include nursing homes, correctional facilities, and other residential institutions.

Source: JJR, 1997.

(Based on 1990 U.S. Census adjusted by building permits issued since 1990 through 1997)

Age of Housing Stock

While the quality of the housing stock in the City is generally very good, approximately 34.5 percent of the housing stock in the City was constructed prior to 1940.

Most of the pre-1940 housing stock is in the central part of the City in the area between Waldo Boulevard on the north, Grand Avenue on the south, Lake Michigan on the east, and So. 26th Street on the west. City housing surveys in this area indicate that nearly 85 percent of the housing stock was constructed prior to 1940. There are also several pockets of 1940's vintage housing that was constructed as employee housing during World War II. These units were built by the Federal Works Agency to provide housing for the hundreds, and eventually thousands, of workers building submarines for the U.S. Navy at Manitowoc Shipbuilding Company. Much of this housing is in need of rehabilitation or replacement. This area has been targeted by some of the City's housing assistance programs.

In many of the central city neighborhoods there is a mixture of owner-occupied and tenant-occupied housing. In some instances, the mixture of occupancy types has resulted in different levels of upkeep and investment in properties. On blocks where there are a significant percentage of owner-occupied homes, it is particularly important to maintain the condition and appearance of the rental units in order to continue to foster conditions of owner occupancy.

✚ The City of Manitowoc has implemented an effective housing rehabilitation program that has encouraged home ownership and owner-occupancy of older housing in the City. This policy has contributed significantly to stabilizing older neighborhoods, and maintaining an inventory of affordable older housing. This supply of rehabilitated older housing is one of the most cost-effective and efficient methods for the City to provide affordable housing to lower and middle income households in the community.

north side of the City, based on assessment records, was \$94,694 and the average value on the south side was \$64,575.

New construction costs in Manitowoc are not significantly different than costs in the Milwaukee area or elsewhere in Wisconsin, although lot costs tend to be lower. The average cost of a new 3-bedroom single-family home (with land) in Manitowoc ranges from \$125,000 to \$175,000.

The disparity between housing values on the north and south sides of the City is generally a reflection of the age of the housing stock. There has been relatively little new single-family construction on the south side, where the majority of the housing stock is pre-1970.

Table 3.17 Average Sold Price of a Home

<u>Manitowoc</u>	<u>1996</u>	<u>1997</u>
North Side	\$92,240	\$94,694
South Side	\$59,096	\$64,575

Source: City of Manitowoc Planning Department, 1997.

Home Rentals

Costs for rental units in the City of Manitowoc have also increased significantly since the 1990 U.S. Census. Effective January 1, 1990, the median contract rent for a rental unit in the City of Manitowoc was \$237. Current rental rates for a recently constructed 2-bedroom unit range from \$400 to \$650.

For purposes of administering Section 8 housing, the Wisconsin Department of Administration has calculated the fair market rate for a 2-bedroom unit in Manitowoc at \$401.

Table 3.18 Section 8 Fair Market Rents for FY 1998

<u>Number of Bedrooms</u>	<u>Monthly Rent</u>
Efficiency	\$273
One Bedroom	\$315
Two Bedroom	\$401
Three Bedroom	\$512
Four Bedroom	\$577

Source: Wisconsin Department of Administration, October, 1997.

PROJECTED HOUSING DEMAND

The increased rate of residential development in recent years has been attributable primarily to the improved economy of the region, and the continuation of relatively low interest rates. While it is unlikely that the rate of new residential construction will continue to increase at the same rate it has in recent years, a strong demand for both single-family and multifamily housing is expected to continue. Most of this demand will be based on enhanced employment opportunities and population growth. However, another component of the demand will be shifting housing preferences and replacement housing for older deteriorated housing.

**Table 3.20 Projected Housing Demand -
Additional Housing Units Since January 1, 1997**

Low-Range Population Projection Based on WDOA Population Projection

	Year 2000	Year 2005	Year 2010	Year 2015
Single-Family	192	608	918	1,274
Multifamily	121	365	547	756
Total Units	313	973	1,465	2,030

Source: JJR, 1997.

High-Range Population Projection Based on 1990 - 1997 Growth Rates

	Year 2000	Year 2005	Year 2010	Year 2015
Single-Family	196	797	1,347	1,984
Multifamily	124	477	800	1,173
Total Units	320	1,274	2,147	3,157

Source: JJR, 1997.

**Table 3.21 Projected Residential Land Demand -
Additional Land Demand Since January 1, 1997**

Low-Range Population Projection Based on WDOA Population Projection

	Year 2000	Year 2005	Year 2010	Year 2015
Single-Family Land Demand (Acres)	96	304	459	637
Multifamily Demand (Acres)	61	61	92	126
Total Land Demand (Acres)	157	365	551	763

High-Range Population Projection Based on 1990 - 1997 Growth Rates

	Year 2000	Year 2005	Year 2010	Year 2015
Single-Family Land Demand (Acres)	98	398	674	992
Multifamily Land Demand (Acres)	21	80	133	196
Total Land Demand (Acres)	119	478	807	1,188

Source: JJR, 1997.

INVENTORY OF BUILDABLE LOTS

Effective December 31, 1997, the City has an inventory of approximately 164 platted lots in residential subdivisions, created on or after January 1, 1990, that are available for construction. Assuming that the majority of new residential development would take place in these newer subdivisions, this represents a 2.2 year inventory of platted lots based on average annual lot consumption since 1990. This is a relatively low inventory of platted lots compared to other communities.

Note: As a general guideline, most communities maintain an inventory of buildable lots equivalent to 3 years of development, at recent construction rates.

In addition to the platted lots in residential subdivisions, there are a number of relatively large parcels throughout the City that are vacant and potentially suitable for residential use. Many of these parcels, however, are either zoned industrial or lack adequate infrastructure. The lack of infrastructure, particularly on the south side south of Dewey Street, is one of the major inhibitors to infill development in that area.

3.E. ECONOMIC PROFILE

RETAIL SECTOR

Retail Trade Area

The City of Manitowoc serves a primary retail trade area consisting of most of Manitowoc County and a small portion of northeastern Sheboygan County. The population of the primary trade area is approximately 80,000 persons. The primary market or trade area is defined as the area within which the majority of population does the majority of its shopping for retail goods, other than convenience items, in the City of Manitowoc.

The secondary trade area extends into eastern Calumet County, the northern portion of Sheboygan County, and parts of southern Brown and Kewaunee County. The secondary trade area has a population of approximately 110,000 persons. The secondary trade area is defined as the area where some, but not a majority, of the population does its primary shopping for retail goods, other than convenience items, in the City of Manitowoc.



Downtown Business District

The City's trade area adjoins the primary trade areas of Green Bay to the north, Appleton/Fox Cities to the west, and Sheboygan to the south. The presence of these slightly larger retail centers surrounding the City of Manitowoc has been a significant limiting factor in expansion of retail sales for many types of products. A common concern among both residents and business owners is the lack of retail diversity, and the loss of consumer spending dollars to competing markets in adjoining communities.

Disposable Incomes and Retail Spending

The total after tax disposable income in Manitowoc County is approximately \$1,200,277,00 (1997 data). The median household "effective buying income" is \$31,832. Table 3.22 shows the relative distribution of after-tax household income or "effective buying income" in the county.

Table 3.22 "Effective Buying Income" Distribution

<u>Household Income Group</u>	<u>Percent</u>
Under \$20,000	28.0%
\$20,000-\$34,999	27.6%
\$35,000-\$49,999	21.8%
\$50,000 and over	22.6%

Source: City of Manitowoc Planning Office, February 1997.

Table 3.23 Total Purchases By Category

<u>Purchase Category</u>	<u>Amount</u>
Food Sales	\$106,832,000
Eating/Drinking Places	\$ 59,303,000
General Merchandise	\$100,291,000
Furniture/Furnishings & Appliance	\$ 26,962,000
Automotive	\$152,510,000
Other	<u>\$150,776,000</u>
 Total Manitowoc County Retail Sales	 \$596,674,000

Source: City of Manitowoc Planning Office, February, 1997.

Retail Spending

In 1996, retail spending in the City totaled approximately \$348,000,000, of which food stores and automotive dealer purchases represent the largest percentages of spending.

Sales, Marketing & Management magazine, on an annual basis, prepares estimates of retail sales by county. Statistics for Manitowoc County in 1997 are as follows:

Food Sales	\$106,832,000
Eating/Drinking Places	\$ 59,303,000
General Merchandise	\$100,291,000
Furniture/Furnishings & Appliances	\$ 26,962,000
Automotive	\$152,510,000
Other	<u>\$150,776,000</u>
 Total Manitowoc County Retail Sales	 \$596,674,000

Source: City of Manitowoc Planning Office, February, 1997.

Effective Buying Income

Sales, Marketing & Management reported that after tax disposable personal income or the "Effective Buying Income" in Manitowoc County in 1997, was as follows:

Total "Effective Buying Income"	\$1,200,277,000
Median Household "Effective Buying Income"	\$ 31,832

Percentage of Households by "Effective Buying Income" group:

Under \$20,000	28.0%
\$20,000-\$34,999	27.6%
\$35,000-\$49,999	21.8%
\$50,000 and over	22.6%

Source: City of Manitowoc Planning Office, February, 1997.

The largest employers in the City of Manitowoc are Mirro Company (1,693 employees) and Dayco-Eastman (909 employees). Other major manufacturers with over 500 employees include the Manitowoc Company (717 employees), Federal Mogul (650 employees), Wisconsin Aluminum Foundry (560 employees) and KI-Manitowoc (511 employees).

Table 3.24 Major Manufacturers

Name of Company	Number of Employees	Product
Aitken-Reed, Inc.	110	Electric heating elements for small appliances
Busch Agricultural Resources, Inc.	83	Brewers malt
The Cawley Company	70	Plaques, thermal engraving systems
Cedar Crest Ice Cream	51	Ice cream, frozen yogurt
Cher-Make Sausage Company	87	Sausage
Color Craft Graphic Arts, Inc.	86	Offset and commercial printing
Consumers, Inc.	45	Structural sheet, steel and thick plate fabrication
DOWCO	160	Canvas awnings and covers
Dramm Corporation	45	Hose nozzles, fittings, and water systems
ECK Industries, Inc.	391	Aluminum alloy castings
Foster Needle Company	170	Industrial felting needles
Federal Mogul	650	Piston rings
HMF Inc.	20	Special machinery
Heiden, Inc.	48	Tanks, sheet steel fabrication
Heresite Protective Coatings, Inc.	35	Protective coatings
Dayco-Eastman	909	Low pressure hose couplings, fittings and assemblies
Invincible Office Furniture Co.	139	Steel office furniture
Jagemann Plating Company	165	Laboratory control, electro-plating
Jagemann Stamping Co.	159	Hose ferrules
KI-Manitowoc	511	Contract furniture
Kaufman Mfg. Co.	65	Machine tools, special machinery
Kaysun Corporation	143	Custom injection molded plastic products
Lakeside Foods, Inc.	455	Canned and frozen vegetables, meat products and fruits
Lakeside Maintenance, Inc.	19	Malt plant maintenance
Lube Devices, Inc.	150	Lubrication equipment and hydraulic components
The Manitowoc Co. Inc. (Corporate)	34	Lattice boom crawler cranes, excavators, winches
Manitowoc Custom Molding, Inc.	100	Custom molded thermostat parts
Manitowoc Cranes, Inc.	422	Liftcranes, excavators
Manitowoc Ice, Inc.	236	Automatic ice cube machines
Manitowoc Grey Iron Foundry, Inc.	85	Gray iron and ductile iron castings
Manitowoc Herald-Times Reporter	91	Newspaper
Manitowoc Tool & Machining, L.L.C.	160	Machine production: tools, dies
Mirro Company	1,693	Aluminum and stainless steel cookware
Natural Ovens of Manitowoc, Inc.	100	Whole grain breads, rolls, cookies, muffins
Northern Labs, Inc.	203	Bath oil, shampoo, hair rinse
Oil-Rite Corporation	84	Industrial lubrication equipment
Precision Woodcrafters, Inc.	46	Store fixtures, point-of purchase displays

Table 3.25 City of Manitowoc Top 10 Taxpayers

Name of Company	1997	Rank	1995	Rank	1985	Rank	1975
MPU (PILOT)	\$1,855,977	(1)	\$1,855,977	(1)	\$786,402	(1)	\$620,432
Manitowoc Company	\$440,605	(2)	\$583,366	(2)	\$705,021	(2)	\$355,314
Mirro	\$309,365	(3)	\$492,243	(3)	\$411,211	(3)	\$557,335
Dayco-Eastman	\$193,748	(4)	\$118,554	(9)	\$115,717	(7)	\$101,176
Busch Agricultural Resources	\$156,339	(5)	\$206,605	(4)	\$159,131	(4)	
Lakeside Foods	\$140,146	(6)	\$141,521	(6)	\$84,247	(9)	
Wal-Mart	\$111,286	(7)	\$133,690	(8)			
Shopko Stores	\$93,227	(8)					
Weyerhaeuser Paper Company	\$89,176	(9)	\$116,959	(10)	\$121,880	(5)	
Park Plaza Stores	\$86,180	(10)					
TOTALS	\$3,476,049		\$3,647,915		\$2,383,609		\$1,850,603

Source: Manitowoc City Planning Department, 1998.

EMPLOYMENT CHARACTERISTICS

The largest employment category in the City of Manitowoc is manufacturing durable and nondurable goods, which employs 13,400 workers or 37.43 percent of the City's labor force. The service sector, which includes healthcare, education, and eating and lodging, is the second largest employment category with 7,200 workers or 20.11 percent of the labor force. Retail and wholesale trade industry employs 19.27 percent of the labor force in the public administration/government accounts for 12.01 percent of the labor force. Collectively, these 4 sectors employ approximately 89 percent of the people living in the County.

With the rebounding of the economy after the recession period of the 1980's, manufacturing employment has increased by 34.6 percent between 1991 and 1996. Service sector employment grew 26.6 percent in that same period.

Table 3.26 Manitowoc County Employment

Industry	Number of Employees	Percent of Employees
Construction & Mining	1,600	4.47
Manufacturing	13,400	37.43
Transportation, Communications & Utilities	1,500	4.19
Wholesale & Retail Trade	6,900	19.27
Finance, Insurance and Real Estate	900	2.51
Services	7,200	20.11
Public Administration/Government	<u>4,300</u>	<u>12.01</u>
Total	35,800	100%

Source: Northeast Wisconsin Employment Review, March, 1998.

Table 3.28 Nonmanufacturing Employers

<u>Name of Company</u>	<u>Number of Employees</u>
Holy Family Memorial	1,314
Manitowoc Public School District	900
Manitowoc County	725
City of Manitowoc/MPU	566
Copps Food Center	300
St. Mary's Home for the Aged	278
Wal-Mart	230
Shady Lane Nursing Home	200
Shopko	170
Manitowoc Clinic	152
Fleet Farm	150
North Ridge Medical & Rehab. Center	127
Silver Lake College	120
Servicemaster	115
YMCA	115
Piggly Wiggly	113
Holiday Inn	110
Inn on Maritime Bay	104
Natural Ovens	100
Sentry (SuperSaver)	100

Source: Manitowoc City Planning Department, 1998.

Table 3.30 Manitowoc County Commuting Patterns, 1994

County	Commute Into	Commute From	Net Commute
Brown	1,106	497	(609)
Calumet	1,370	507	(863)
Kewaunee	275	268	(7)
Sheboygan	2,395	538	(1,857)
Elsewhere	1,030	88	(942)
Total	6,176	1,898	(4,278)
Work within Manitowoc County	31,673		

Source: Wisconsin Department of Workforce Development, Manitowoc County Workforce Profile, and September, 1997.

3.F. EXISTING LAND USES PROFILE

LAND USE INVENTORY

Effective September 1997, the City of Manitowoc encompassed approximately 10,124-acres (15.8 square miles). The balance of the Manitowoc planning area is unincorporated area outside the City. Approximately 7,816-acres (12.2 square miles) in the City of Manitowoc are developed. The remaining 2,263-acres (3.5 square miles) consists of a combination of floodplains and wetlands, and other undevelopable land and vacant developable land.

Approximately 1,283-acres (2.0 square miles) of the vacant land in the City is considered potentially developable. However, much of this land is held by major industries or by the City as future expansion and industrial development land.

Table 3.31 City of Manitowoc Land Uses

Type of Land Use	1997 Approx. Acreage	Percent of Total Land	Percent of Developed Land
Residential	3,541	35%	45%
Commercial	512	5%	7%
Industrial	881	9%	11%
Institutional/Public	1,247	12%	16%
Transportation	873	9%	11%
Park and Recreational	804	8%	10%
Total Developed Land	7,858	78%	100%
Undeveloped Land			
Wetlands and Floodplains	983	10%	
Vacant Developable Land	<u>1,283</u>	<u>12%</u>	
Total Land Areas	10,124	100%	

Source: JJR, Ltd., September, 1997.

COMPARISON OF LAND USE RATIOS TO OTHER COMMUNITIES

Based on a national survey of communities under 100,000 population conducted by the American Planning Association in 1992, the City of Manitowoc has a higher percentage of developed land in industrial use, and a significantly lower percentage in commercial and residential uses than other communities. These ratios correspond to the fact that the City of Manitowoc has historically been an industrial city. Manitowoc has 11 percent industrial land uses in comparison to the national average of 7 percent.

The ratios also confirm a general impression held by many residents of Manitowoc, that the area is underserved by retail business. The City's ratio of 6 percent commercial uses is significantly lower than the national average of 10 percent commercial use.

The relatively low percentage of land area in residential uses is, in part, attributable to the fact that much of the housing developed through the early 1980's in Manitowoc is on smaller lots and is developed at higher density than in many other communities. Since 1987, the City has experienced an increase in larger lots and estate housing.

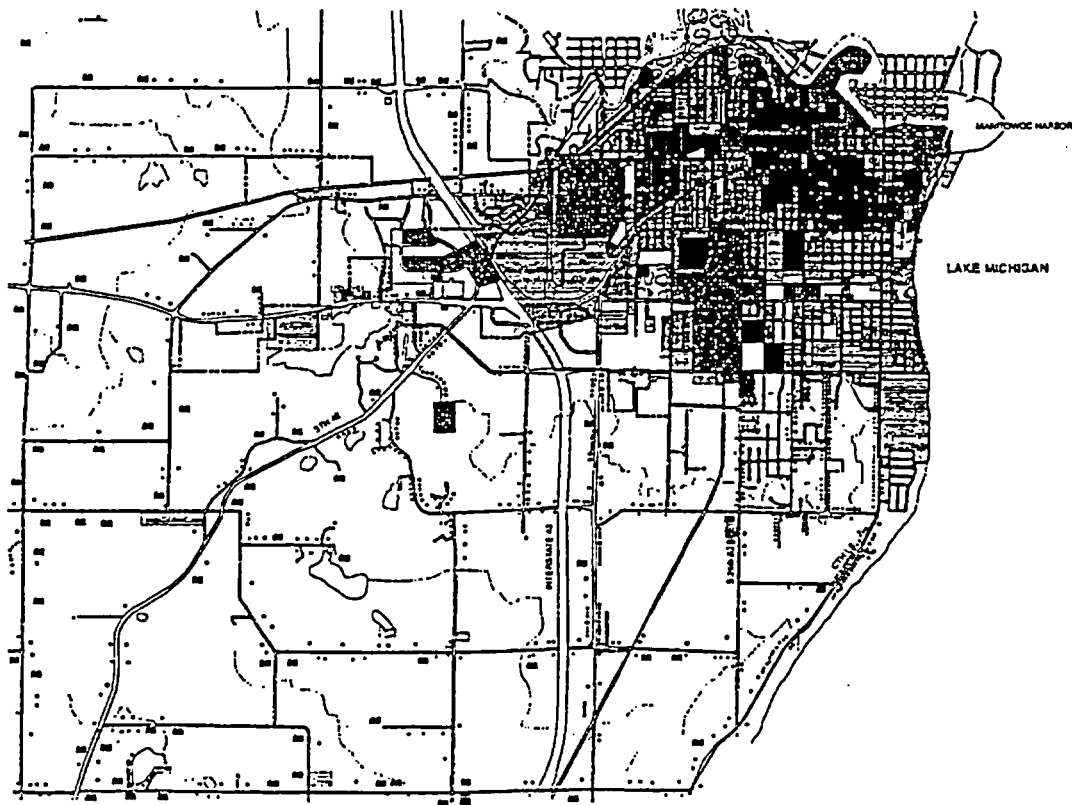
Manitowoc, along with many other Wisconsin communities, has a higher percentage of land in public uses. This reflects a public commitment to preserving public open spaces and preserving environmental corridors, as well as a well-developed system of public institutions.

Table 3.33 Comparison of Manitowoc Developed Land Use Ratios to Other Cities Under 100,000 Population

Type of Land Use	Percent of Developed Land Manitowoc	Average Percent of Developed Land Cities Under 100,000
Residential	45%	52%
Commercial	6%	10%
Industrial	11%	7%
Public (Institutional, Utilities, Transportation, Parks)	37%	31%

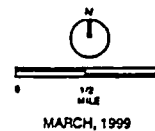
Sources: JJR, Ltd., 1997.

"Bringing Land Use Ratios Into the 1990's," PAS Memo, American Planning Association, August, 1992.



- Single Family
- 1-4 Family
- Multifamily
- Trailer Park
- Commercial
- Industrial
- Office
- Institutional
- Park
- Vacant Land
 - Rural Residential
 - Rural Commercial
 - Farm

1998 LAND USE INVENTORY-SOUTHERN SECTION



1998 LAND USE PLAN INVENTORY - SOUTHERN SECTION
 MANITOWOC, WISCONSIN

4. COMMUNITY GOALS AND OBJECTIVES STATEMENT

The following goals and specific objectives describe the City's priorities for growth and development over the next 20 years. These items are not presented in priority order and represent inputs derived from City officials, the community survey, and an evaluation of action priorities conducted by the Committee.

The City should periodically review and measure how well it is meeting these goals, as well as the needs and expectations of its current and future residents.

In addition, the City also needs to establish a framework for cooperative decision making in order to guide development.

GOAL: PROMOTE CONTINUED ECONOMIC DEVELOPMENT AND STABILITY IN THE MANITOWOC AREA.

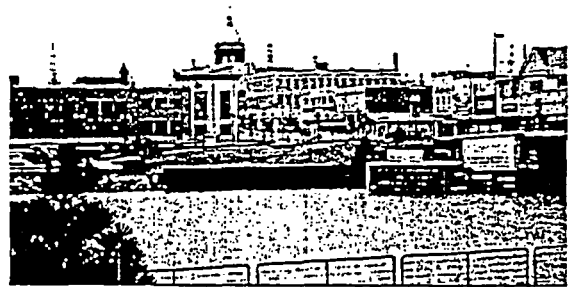
Specific Objectives:

- a. Continue to provide an adequate inventory of fully-improved marketable lots in the City's industrial parks and other industrially-zoned sites, so that the City will continue to be competitive with other communities in attracting new industry.
- b. Develop and expand the I-43 Industrial Park to the west, as the City's primary industrial expansion area.
- c. Develop a site master plan for the expanded I-43 Industrial Park that includes similar uses.
- d. Expand the City's economic development strategy to include promotion of the area for information-based industries and "white-collar" businesses with an emphasis on companies featuring higher skill and higher wage employment opportunities.
- e. Create a City-sponsored business incubator to provide cost-effective start-up space and services to qualified new businesses.
- f. Work with telecommunication utilities to assure that the City of Manitowoc is able to offer businesses "state of the art" telecommunications and information communication facilities.
- g. Continue to coordinate economic development planning between the City of Manitowoc, Manitowoc County, and the City of Two Rivers to assure that there is not a duplication of economic development services, and to minimize the creation of competing publicly-funded industrial parks or sites.
- h. Coordinate and consolidate tourism promotion activities in the Manitowoc County area.
- i. Strive to develop a more competitive entrepreneurial economy in the City in which small to mid-sized firms account for the larger share of production and employment.

GOAL: PROMOTE REVITALIZATION OF DOWNTOWN

Specific Objectives:

- a. Encourage continued coordination and unification of downtown businesses.
- b. Redevelop the C. Reiss (Koch) Co. coal dock for a lakefront mixed-use development. Potential uses include a combination of tourist-oriented retail stores, restaurants, office, and residential uses.
- c. Extend Quay Street to connect with Lakeview Drive to provide a direct linkage between the Lake Michigan Carferry docking area and the downtown business district.
- d. Continue to expand the riverwalk system to the south side of the Manitowoc River, and provide a direct connection for pedestrians and bicyclists to the Lake Michigan Carferry docking area.
- e. Maintain efforts to attract additional Lake Michigan cruise ships and pleasure craft to Manitowoc Harbor.
- f. Rehabilitate the Manitowoc Hotel as a downtown residential or mixed-use development.
- g. Redevelop underutilized parcels on the riverfront between So. 8th Street and So. 10th Street.
- h. Redevelop the Wisconsin Central Railroad parcel west of So. 10th Street for downtown housing or office use.
- i. Encourage the upgrading and conversion of vacant upper floors into residential and other appropriate uses.
- j. Build a new City Hall to enhance service to the public and encourage economic development (image).
- k. Provide additional municipal parking areas, as needed, to meet the needs of downtown businesses.
- l. Continue the use of Tax Incremental Financing (TIF) as an incentive for new downtown development.
- m. Continue to implement the "Downtown Design Guidelines" adopted by the City.
- n. Coordinate facility planning in the downtown area between the City of Manitowoc and Manitowoc County.
- o. Continue to develop an image and vision for downtown, and encourage private and public investments to attain a multi-functional downtown.



Downtown Riverfront

Note: A Downtown BID was established in 1993 but dissolved in 1996. The BID failed to gain the support of the majority of property owners. The City and downtown business and property owners should reconsider a Downtown BID or other management techniques, which address some of the failures of the original district.

GOAL: PROVIDE AN EFFICIENT CIRCULATION SYSTEM

Specific Objectives:

- a. Connect Magnolia Avenue between Johnston Drive and N. 18th Street, and N. 18th and Menasha Avenue to provide a continuous east-west collector street corridor serving the north side of the City.
- b. Realign Calumet Avenue near So. 26th Street to provide a continuous connection to Washington Street.
- c. Extend So. 26th Street south to Viebahn Street as a through north-south collector street serving the south side of the City.
- d. Extend So. Parkview Road, north to Waldo Boulevard and south to Expo Drive, to provide a future north-south collector street serving the west side of the City.
- e. Extend Viebahn Street to connect with STH 42.
- f. Continue to use the City's "Official Map" as the regulatory tool to preserve rights-of-way for future streets. Update the "Official Map" as needed, in order to keep the map current and accurate.
- g. Require all new development to provide location and design for either sidewalks or alternative pedestrian/bicycle access paths at the time of plat approval.

GOAL: PROVIDE EFFICIENT PUBLIC UTILITIES AND SERVICES

Specific Objectives:

- a. Adopt an "Urban Service Area" boundary delineating the area proposed for public sanitary and water utility service over the next 20 years.

Note: WDNR is required to delineate an Urban Service Area. City staff is currently working with WDNR and Bay-Lake Regional Planning Commission to prepare the proposed 20-year boundary.

- b. Construct the Manitowoc River Interceptor Sewer to serve the west and northwest sides of the City, including the USH 10/STH 42 (Waldo Boulevard) interchange area.

Note: Construction of the Manitowoc River Interceptor Sewer and other major sanitary sewer interceptors are major utility projects that will require advance budgeting and planning. The City should consider a range of funding mechanisms including establishing area assessment districts and the use of development impact fees to help fund these projects.

- c. Construct the West Viebahn Street Interceptor Sewer to serve the southwest quadrant of the USH 151 interchange and the I-43 Industrial Park expansion area.
- d. Construct the Goodwin Road Relief Interceptor Sewer to serve the portion of the northwest area in the Little Manitowoc River drainage basin, and provide relief for the Fleetwood Drive Interceptor Sewer.
- e. Prepare a comprehensive stormwater management plan focusing on developing areas on the west, northwest, and north sides of the City.

**GOAL: PLAN FOR THE FUTURE DEVELOPMENT OF LAND OUTSIDE
THE CITY BUT WITHIN MANITOWOC URBAN PLANNING AREA**

- a. Continue to utilize the City's extraterritorial plat review powers to assure that land on the edge of the City is not platted prematurely, and that any land divisions within the 20-Year Manitowoc Urban Planning Area are designed for future service by public utilities.
- b. Encourage coordination and cooperation in land use planning in the Manitowoc Urban Planning Area with the unincorporated towns and Manitowoc County.
- c. Continue to encourage that key commercial development sites, such as the City's I-43 interchange areas, be master planned to reserve sites for future commercial development on public utilities.
- d. Maintain the City's current policy of not extending municipal utilities without annexation into the City of Manitowoc.
- e. Consider utilization of impact fees for all development in outlying "greenfield" locations.
- f. Encourage infill development strategies wherever possible and minimize sprawl whenever possible.

5. LAND USE PLAN

5.A. RESIDENTIAL EXPANSION AREAS

SINGLE-FAMILY EXPANSION AREAS

North and Northwest Areas

Over the next 20 years, the majority of new single-family housing is expected to continue to be built on the north, northwest, and west sides of the City. Both developers and home buyers tend to favor north, northwest, and west side locations over the south side of the City.

There will be continued infilling and additions to already platted lands, particularly Country Estates, Doneff Addition, River Ridge and Woodridge Subdivisions. Additional new single-family development sites are planned in the area between N. 8th and N. 18th, north of the Little Manitowoc River, and the area between Herman Road and Rapids Road (CTH "R"), west of the Manitowoc County Airport.

So. Parkview Road Area

Single-family development is beginning to occur in the So. Parkview Road area in the Town of Manitowoc Rapids. This area, as well as Whitewater Acres, should ultimately be served by public sanitary sewer and annexed into the City. Due to its location and aesthetically-desirable topography, the So. Parkview Road area contains some of the most desirable residential development land in the Manitowoc area.

A high priority for the City should be to annex land and provide utilities to developing areas in the Parkview Road area and other lands located between the Manitowoc River and I-43. This area is likely to develop residentially, and the area should be developed in the City of Manitowoc on public utilities. Any approvals of development occurring in the So. Parkview Road area or elsewhere east of the I-43 corridor prior to the availability of municipal utilities, should be conditioned on the property owners agreeing to annexation and connection to municipal utilities at the time that utilities are available.

South Side

Although the lack of infrastructure and mixed land uses have limited residential development on the south side, there will continue to be some residential infilling on lots serviceable by public sewers. The south side sites are generally less expensive than comparable sites on the north side of the City, which tends to make them attractive for affordable housing projects. Residential real estate on the north side of the City tends to sell for 15 to 20 percent over comparable housing on the south side.

One of the key issues that the City will need to address in the future is consistently maintaining the quality of new development on south side sites. Because of the mixed-use character of the area and uneven development patterns, there could be a tendency for the south side to have a disproportionately higher share of the subsidized and lower income households in the City. Clustering of lower income households and assisted housing projects in a single neighborhood could create conditions that would foster blight and social problems, such as higher crime levels and the need for welfare support and other social services.

Southwest Area - West of So. 30th between Dewey and Viebahn Streets

A third area within the City limits with a significant amount of vacant developable land is in the southwest part of the City, west of So. 30th between Dewey Street and Viebahn Street. Much of this land is zoned for industrial or commercial use. Prior to the City's purchase of the I-43 Industrial Park, this area was planned as the primary industrial expansion area for the City. Some of this area is owned by the Manitowoc Company.

At the present time there is a surplus of industrially-zoned land in the City. The land has relatively low market value as it is currently zoned. The City should consider rezoning portions of this area not needed for industrial expansion to residential, and encourage infill of these sites.

RECOMMENDED HOUSING POLICIES

1. Maintain an inventory of at least 3 years supply of platted single-family lots in the City.
2. Anticipate the infrastructure requirements for future residential expansion areas and develop financing mechanisms and capital improvement programs for needed infrastructure in advance of development.
3. Require new housing developments within the Manitowoc Urban Service Area to be connected to public sewer and municipal water supply.

Note: In areas where public utilities are not currently available, development approval should be based on annexation and connection to municipal utilities at the time that such services are available to the area.

4. Encourage the master planning of large, single-ownership parcels, rather than piece-meal creation of lots by certified survey maps or smaller subdivisions.
5. Encourage the integration of mixed-housing types into large scale residential developments.
6. Encourage the platting of sites in the City of Manitowoc that are suitable for high-value estate lots.

Note: This policy will help maintain the tax base of the City and help prevent the flight of higher income households to rural sites in the countryside.

7. Continue housing assistance programs that provide incentives for owner-occupancy, particularly in targeted central city neighborhoods that are at risk of deterioration.
8. Avoid the concentration of lower-income housing in specific neighborhoods or blocks.
9. Locate higher-density family housing in areas that are near parks and schools and in areas served by public transit.
10. Promote and encourage the development of affordable single-family housing in the \$100,000 - \$125,000 range.
11. Continue to focus efforts to maintain and upgrade existing housing stock.
12. Encourage property owners to convert vacant second and upper floor spaces into residential uses.

5.B. COMMERCIAL EXPANSION AREAS

There are a number of key commercial and mixed-use redevelopment sites outside the downtown area that merit special planning and design consideration. These are sites with high visibility and accessibility that are likely to undergo significant commercial development or redevelopment over the next 10 to 20 years.

The key commercial locations include:

- Manistowoc County Health Care Center Site
- Calumet Avenue Corridor
- Calumet Avenue (USH 151)/I-43 Interchange
- Waldo Boulevard (USH 10)(STH42)/I-43 Interchange
- Edgewater Plaza/Lakeview Center

MANITOWOC COUNTY HEALTH CARE CENTER SITE

The 86-acre Manistowoc County Health Care Center site is located at the intersection of Calumet Avenue (USH 151) and So. Rapids Road. The site is the largest remaining open site east of I-43, along the Calumet Avenue corridor. As such, it is potentially one of the most developable commercial sites in the Manistowoc area.

A portion of the site is occupied by the Manistowoc County Health Care Center (MCHCC), which is a 220-bed nursing home and health care facility, owned and operated by Manistowoc County. In addition to the MCHCC, Manistowoc County has constructed an office complex housing the Manistowoc County Extension Services and other County offices, north of MCHCC.

In 1997, Manistowoc County commissioned a Manistowoc County Health Center Strategic Plan prepared by Innovative Health Associates. The study found that there is an oversupply of comparable nursing home and care facilities in Manistowoc County and that the oversupply is likely to continue beyond the year 2000. The study also indicated that the Manistowoc County facilities are currently operating at a deficit of approximately \$1 million per year, and would likely continue to do so if maintained at its current capacity.

The study outlines a series of alternative scenarios for MCHCC's future and the future of the site. The alternative scenarios include:

Scenario 1 Maintaining the Status Quo

- No change in MCHCC service or operations.
- No sale of land.

Scenario 2 Major Renovation either at the current site of construction of a new facility at a different site

- Targeting new programs and markets.
- Sale of all or portions of the site for redevelopment.

Scenario 3 Providing a Downsized Facility at a New Site

- Purchase of a new site.
- Sale of all or portions of the current MCHCC site.

Scenario 4 Privatization

- Lease of the facility at the current site to a private agency.
- Sale of all or portions of the remaining site.

The City of Manitowoc supports an alternative that would make all, or significant portions, of the site available for commercial or mixed-use development. The adjoining smaller residential properties fronting on Calumet Avenue should be assembled as part of the master plan for the site. The MCHCC site and adjoining smaller parcels are logical infill commercial sites since utilities are available to the site, and it is surrounded on all sides by developed land.

A second study by the Hoffman Corporation, commissioned by Manitowoc County in 1998, studied the feasibility of three options related to the MCHCC. The 3 options are as follows:

1. Renovating and reducing the MCHCC to a 150-bed facility. This option is estimated to cost \$10.2 million with a 25-year life cycle cost of \$66.2 million;
2. Constructing an addition to the MCHCC utilizing a portion of the existing structure. This option is estimated to cost \$15.5 million with a 25-year life cycle cost of \$70 million; and
3. Construction of a new 150-bed facility on the existing MCHCC property. This option is estimated to cost \$13.7 million with a 25-year life cycle cost of \$57.5 million.

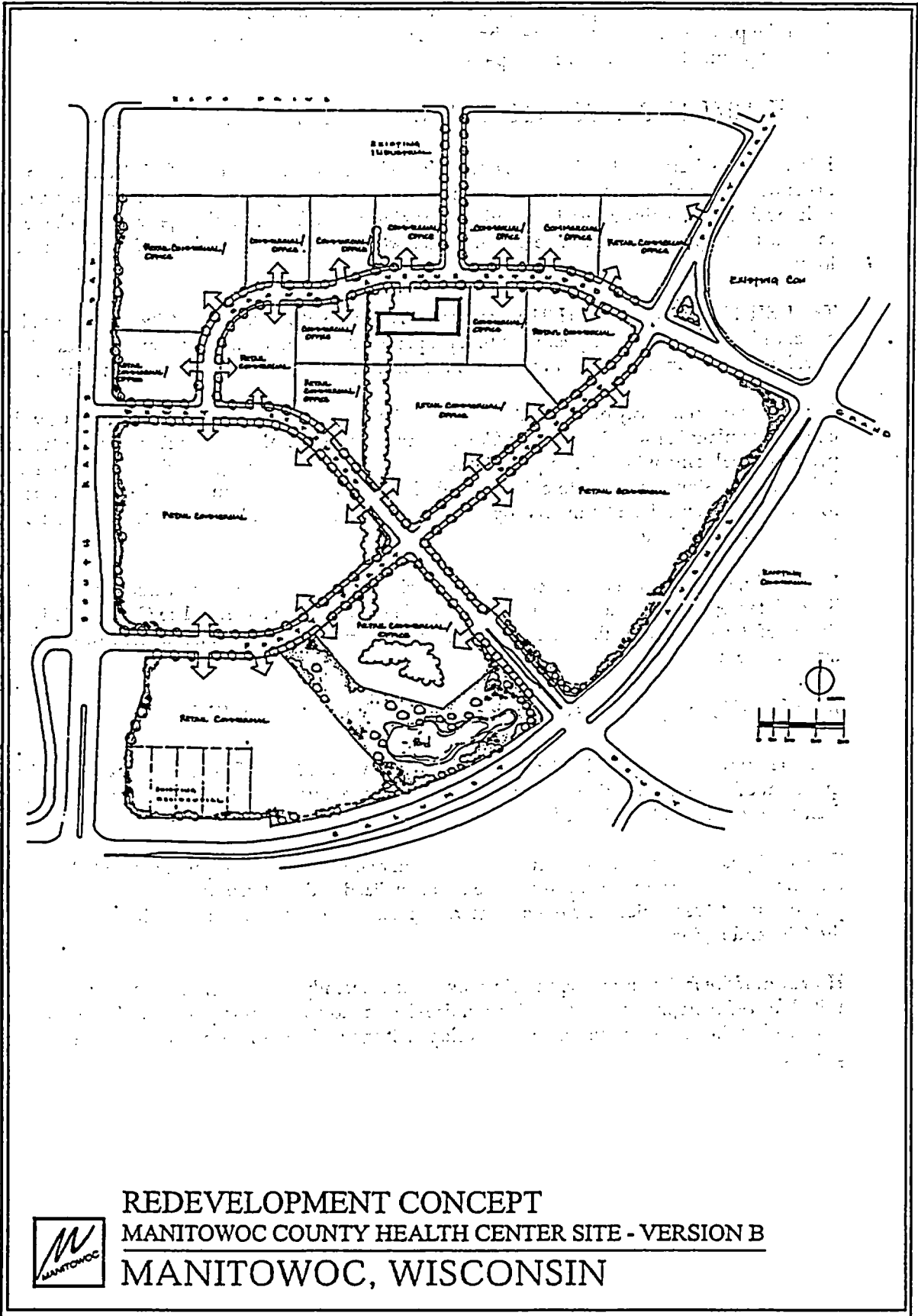
The Manitowoc County Board of Supervisors is in the process of determining how it will proceed on this issue. While the Hoffman study did not address an option for relocating the Center to a new site, this option would provide optimal development of the entire land parcel.

Proximity to the I-43 interchange makes the site particularly attractive to retail and office/professional businesses with a regional customer base. Having this site available for commercial development will enable the City to attract major businesses and recapture some of the retail business trade that currently makes purchases in Green Bay, Sheboygan, and Appleton.

The site will provide an important tax base to the City, as well as the other taxing jurisdictions, including both Manitowoc County and the Manitowoc Public School District.

The City's primary concern is that the MCHCC site be master planned and developed under an overall development plan that incorporates an efficient internal street system, stormwater management basins, and efficient utility design (*see alternative concept site plans pages 65 and 66*). The parceling of individual lots, in the absence of a unified master plan, would potentially result in a "helter-skelter" development that would not fully capitalize on the site's potential. The preferred form of development would be to have the entire holding managed and developed by a single development company operating either under a development agreement or contract with Manitowoc County or with an option or purchase agreement. The City of Manitowoc should assist with the infrastructure improvements for a high quality development that would meet Tax Incremental Financing (TIF) criteria.

The City should master plan the site using architectural review and site plan review standards. Depending on the type of development proposed for the site, the City should consider creating a TIF district to help finance the infrastructure required under a comprehensive development plan.



REDEVELOPMENT CONCEPT
 MANITOWOC COUNTY HEALTH CENTER SITE - VERSION B
 MANITOWOC, WISCONSIN



Future commercial development is planned for the south side of USH 151, extending west to STH 42. With the planned extension of Viebahn Street to connect to STH 42, all of the area north of Viebahn Street is planned as a commercial expansion area.

USH 10/I-43 & STH 310/I-43 INTERCHANGE AREAS

It is anticipated that the USH 10/STH 42 (Waldo Boulevard/I-43 and the STH 310/I-43) interchange areas will be developed at some point in the future. Potential types of development include motels or lodging facilities, highway services, and "big box" retailers. The interchange areas also have the potential to attract a corporate or insurance center, which would be the preferred type of development at this location.

The USH 10/STH 42 and STH 310 interchanges are currently outside the City limits. The biggest concern from the City's perspective is that properties at these interchanges may be subdivided and developed in a haphazard manner prior to the extension of utilities to the interchange area.

Because of the sensitivity of these areas and their imminent development potential, the City should coordinate planning with Manitowoc County and the Town of Manitowoc Rapids and with landowners prior to development in order to protect the integrity of the interchange, and to plan the timely and efficient extension of services to coincide with development. This is an area where it may be appropriate for the City to consider a boundary agreement with the County and township to assure the proper development of the site.

Ultimately, the extension of services to the interchange area will require construction of the Manitowoc River Interceptor Sewer and a new northwest side water storage facility. The City should factor the timing of development of the interchange into the planning and budgeting for the sewer and water utility improvements.

MANITOWOC COUNTY EXPO CENTER SITE

The Manitowoc County EXPO Center site is located west of North Rapids Road at the northeast quadrant of the I-43 and Highway 151 (Calumet Avenue) interchange. The facility is a County-owned facility used for a wide variety of public purposes.

The facility is well-located with respect to excellent regional access and proximity to lodging, restaurants, and other commercial services. If the site is fully utilized and professionally managed as a multiple-purpose sports, recreation, and event center, its present use and location could be an important asset to the City and region.

However, if the facility is managed primarily as intermittently-used fairgrounds, the site may be better suited for redevelopment with the fairgrounds relocated to a more rural location. If the fairgrounds are relocated in the future and the site is redeveloped, it should be used for highway interchange commercial purposes.

5.C. INDUSTRIAL EXPANSION AREAS

INDUSTRIAL AND BUSINESS DEVELOPMENT STRATEGY

Manitowoc has historically had a strong industrial base consisting primarily of basic manufacturing industries. Prior to the 1980's, the local economy was dominated by several major manufacturing employers, concentrated in the fabricated metal and machinery manufacturing sectors.

During the late 1970's and 1980's Manitowoc, along with many other northern "rust belt" industrial cities, experienced a severe recession. During the 1980's, several of the larger industries "down-sized" and severely reduced their workforce. Some of the smaller businesses completely ceased operations.

Today, the economy of the area has rebounded from the low point in the early 1980's, and annual average unemployment is under 3 and 4 percent. The Manitowoc area is in much better shape than it was during the previous decades. While several major manufacturers continue to provide the majority of manufacturing jobs, there are over 300 smaller manufacturers and industrial employers in the area providing a much broader diversity of employment opportunities than in earlier decades.

In spite of the improved economy, there remain some serious economic problems in the community. These problems include:

- Predominance of lower paying service sector jobs compared to higher paying skilled manufacturing jobs.
- Lack of sufficiently trained skilled workers.
- Lack of major "white collar" employers, such as corporate centers, insurance companies, and computer-related companies.
- Discrepancy between the cost of housing and other costs of living compared to average wage levels.
- Non-local ownership of some of the major industries, and lack of community involvement by industrial leaders.

To help address these issues, the City of Manitowoc will work toward the following goals:

- Continue efforts to retain and support existing industries and attract new industries to the area.
- Continue to provide economic assistance to businesses and assist industries in securing State and Federal assistance.
- Through its industrial park program, the City will continue to provide an inventory of improved industrial sites available to both existing businesses in the community and new industries.
- Develop a more entrepreneurial and competitive economy in the City in which smaller firms account for a larger share of production and employment.
- Over the next 10 to 20 years, diversify the economic base of the community and attract more information-based high technology businesses. While manufacturing is expected to continue to be the dominant industry, the City will be seeking new office-type industries, such as insurance companies, financial firms, and computer-related industries.

Manitowoc Industrial Park

The Manitowoc Industrial Park, the City's first industrial park, measures approximately 104-acres and was developed by the City of Manitowoc in the early 1970's. The park is generally located north of Expo Drive between So. 41st Street and So. Rapids Road. Businesses in the Manitowoc Industrial Park include DOWCO, Foster Needle, Oil-Rite Corporation, Manitowoc Tool and Machining, Manitowoc Custom Molding, KI- Manitowoc, and Insulation and Supply Company. The industrial park is home to 20 businesses, which employ over 1,400 people and represent nearly \$13 million in value in 1997.

Manitowoc Company Peninsula and Central City Industrial Areas

Approximately 73-acres of industrial land is located just south of the Manitowoc River and north of Wollmer Street. Part of this area has been marketed by the Manitowoc Company as the "City Center Office & Industrial Park". Industries in this area include Red Arrow Products Company Inc., Consumers Inc., and Northern Wisconsin Produce.

On the north side of the Manitowoc River along Spring Street, there is an industrial area of approximately 76-acres. The Burger Boat Company and Consumers, Inc. are located in this area.

Mirro Company and a number of other industries occupy approximately 25-acres along Franklin and Washington Streets between So. 14th and So. 26th Streets.

Busch Agricultural Resources, Inc. and Lakeside Foods are located in the downtown area, east of 8th Street.

South Side Industrial Area

An approximately 300-acres industrial area is located in the southern part of the City along the Wisconsin Central rail corridor. Industries in this area include Manitowoc Company, Vinyl Plastics, Manitowoc Grey Iron Foundry, Jagemann Stamping, Jagemann Plating, Kaufman Manufacturing, Weyerhaeuser Company, and Stack and Store Systems.

Southwest Industrially-Zoned Area

There is a large amount of undeveloped, industrially-zoned land west of So. 30th Street extending westward to I-43. The City's 1984 Comprehensive Plan anticipated that this area would be the major industrial expansion area for the City. Much of the southwestern part of the City was rezoned for industrial use predicated on this plan. The planned expansion of the southwest industrial area has not occurred. Instead, the City of Manitowoc has purchased and developed the I-43 Industrial Park site.

North Side Industrial Sites

Approximately 50-acres of industrial land is located along the Wisconsin Central railroad corridor between Waldo Boulevard and Menasha Avenue, between N. 24th and N. 30th Streets. The industries in this area include Federal Mogul, Dean Brennan Transport, Koss Builders, and Craft's Electric.

Other industrial sites on the north side include the Mirro Plant on Mirro Drive, (#6 Rolling Mill), Eck Industries Lube Devices, and Universal Wire & Stamping located east of the Manitowoc County Airport on Nagle Avenue.

- Extend an interceptor sewer across I-43 to provide gravity sewer flowage.

Note: The I-43 Industrial Park is in the upper Silver Creek drainage basin. Connecting to sewers in the existing park would require lift stations.

- Reserve land for a landscaped berm to buffer the west side of the I-43 Industrial Park from nonindustrial uses west of So. Alverno Road.
- Develop a greenway and trail system/exercise course along the drainage way that runs through the expansion area.

5.D. PERIPHERAL PLANNING AREAS

"Peripheral areas" are lands on the edge of the City that are undeveloped or only partially developed at rural densities. For planning purposes, the peripheral area around the City of Manitowoc has been divided in "peripheral planning areas" based on future neighborhoods.

It should be noted that it is not anticipated that all of the land in the peripheral planning areas be developed in the next 20 years, or even the next 40 years. However, it is expected that the development process will begin in these areas within the 20-year planning period, and that the City should anticipate infrastructure improvements that will support future development of these areas on public utilities. These are not presented in priority order.

NORTHEAST PLANNING AREA (AREA #1)

Most of the Northeast Planning Area is located east of the Manitowoc County Airport. All of the planning area is in the Little Manitowoc River drainage basin, and is serviceable by the Little Manitowoc River Interceptor. The area is generally bounded on the east by Woodland Drive and the Two Rivers city limits; the north boundary is Goodwin Road; the west boundary is the Manitowoc County Airport; and the south boundary is the existing Manitowoc city limits.

The Northeast Planning Area adjoins Woodridge Subdivision, land zoned multifamily on the north side of Albert Drive, and the Mirro plant east of Mirro Drive.

Most of the Northeast Planning Area is currently in the Town of Manitowoc. The area is currently undeveloped with the exception of approximately 25 rural residences. Most of the existing residences are on Old CTH "Q" and Goodwin Road, east of Manitowoc County Airport. Goodwin Village is a small rural subdivision located south of Goodwin Road, adjacent to the northeast corner of the airport.

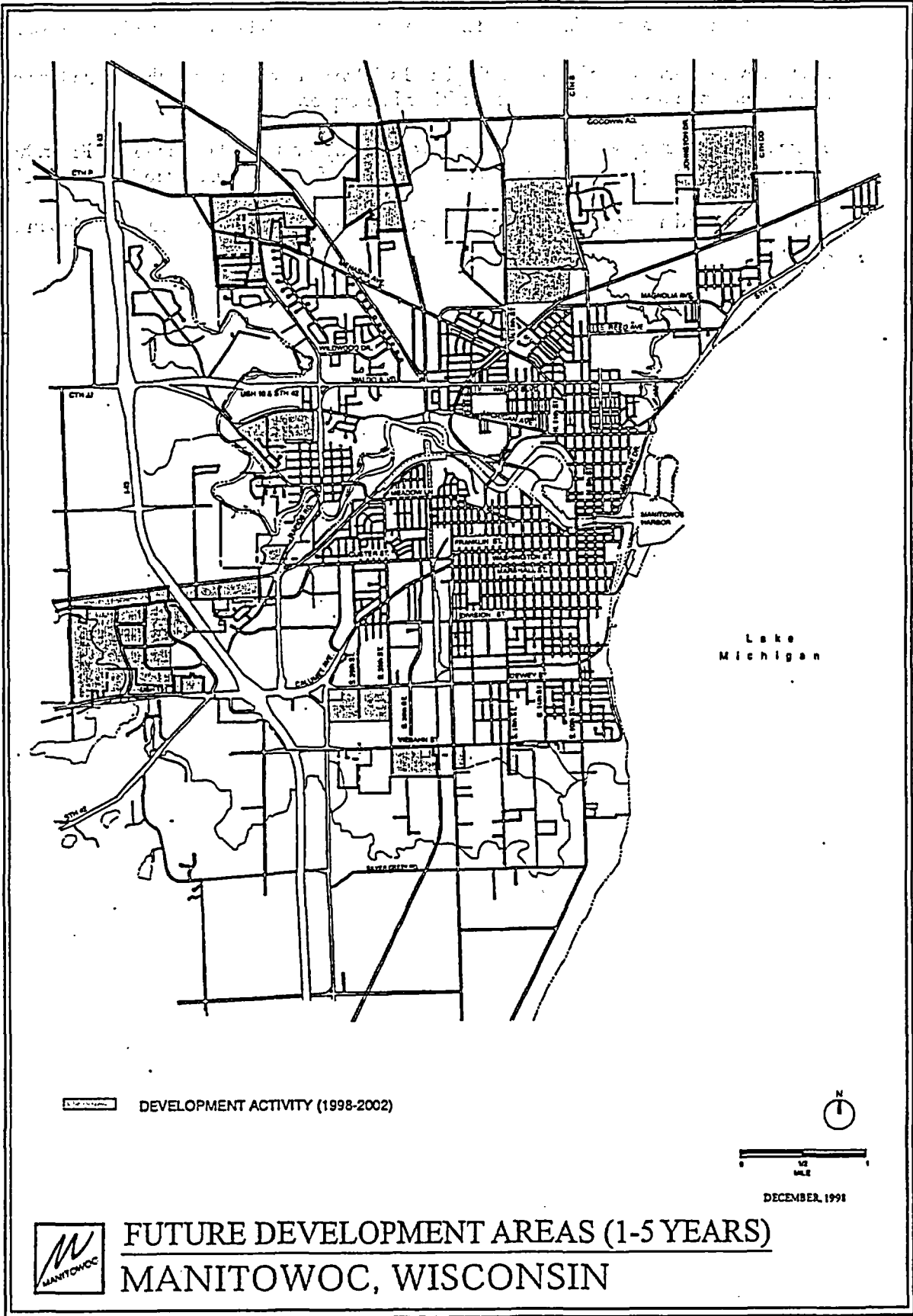
The Northeast Planning Area includes undevelopable lowland adjoining the Little Manitowoc River, and a large isolated wetland east of Woodridge Subdivision.

Development Potential

Most of the Northeast Planning Area east of N. 18th Street (CTH "Q") is planned for residential development. Most of the area west of N. 18th Street, adjoining the Manitowoc County Airport, is planned for industrial or commercial use.

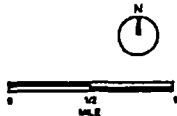
There are approximately 800 gross acres of potentially developable residential land in the Northeast Planning Area. If fully developed at densities averaging between 2 and 4 dwelling units per acre, the Northeast Planning Area could hold approximately 1,200 to 2,400 dwelling units with a total population of 2,640 to 5,280.

Note: The development potential calculations assume 25 percent of the gross land area will be consumed by roads, parks and other public improvements. The population forecasts assume an average of 2.2 persons per dwelling unit.



DEVELOPMENT ACTIVITY (1998-2002)

Lake Michigan



DECEMBER, 1998



FUTURE DEVELOPMENT AREAS (1-5 YEARS)
 MANITOWOC, WISCONSIN

The eastern portion of the River Heights Planning Area has been developed as the River Heights and River Ridge Subdivisions. The remainder of the planning area is in the Town of Manitowoc Rapids.

Future development west of the currently platted subdivisions will require either lift stations or connection to an extension of the planned Manitowoc River Interceptor.

There are several steep wooded embankments and floodplain along the Manitowoc River; however, most of the upland area is potentially developable and suitable for predominately residential development.

This is considered a long-range residential expansion area, but is not expected to develop in the next 10 years.

the 75-acre Camp Vits Park, which is a scenic natural area owned by the City of Manitowoc. The park has very unique flora and fauna that should be preserved.

There are approximately 500-acres of potentially developable land suitable for residential development. This area includes some of the most attractive properties for residential growth in the Manitowoc area.

The southeast and southwest quadrants of the Waldo Boulevard interchange area will be prime highway commercial land. In order for this area to develop efficiently, it should be served by sanitary sewers and public water supply. Development at the interchange area should be master planned based on a PUD concept in order to achieve development efficiencies and prevent the premature division of land to create rural lots.

Development Potential

Approximately 500-acres in the So. Parkview Road Planning Area are planned for future residential development. If the vacant developable area planned for residential use were fully developed at densities averaging between 2 and 4 dwelling units per acre, the So. Parkview Road Planning Area could hold approximately 750 to 1,500 dwelling units with a total population of 1,650 to 3,300 persons.

Approximately 50-acres in the southeast and southwest quadrants of the Waldo Boulevard interchange are planned for interchange commercial development.

I-43 INDUSTRIAL PARK PLANNING AREA (PLANNING AREA #6)

The I-43 Industrial Park Planning Area consists of the City's I-43 Industrial Park and the adjoining parcels to the north and west. The area is bounded on the south by USH 151, on the east by I-43, on the north by the Wisconsin Central, Ltd. railroad tracks, and on the west by So. Alverno Road.

In the early 1990's, the City purchased approximately 242 acres for the I-43 Industrial Park. The City, in 1998, purchased the 48-acre Meyer property, and an additional 170-acres to the west of its current park boundaries.

There are approximately 20 rural, single-family residences on Silver Street.

Luigi's, a local pizza restaurant, and the Silver Creek Fire Station are located on USH 151.

The majority of the planning area east of So. Alverno Road is planned for industrial and business park expansion. The City should prepare a comprehensive development plan for the industrial park expansion area. There may be some commercial development potential on USH 151, and some limited residential potential on the west side of So. Alverno Road and the north side of West Custer Street (CTH "CS").

Most of the industrial park expansion area west of the existing I-43 Industrial Park is in the upper Silver Creek drainage basin. The area will require either lift stations, or extension of the Silver Creek Interceptor across I-43. The recommended plan for extending sewer service to this area is to construct the sewer interceptor across I-43 at the Viebahn Street crossing.

Development Potential

There is limited residential development potential in Planning Area #6, and no significant population growth in the City is forecasted for the area.

LOWER SILVER CREEK PLANNING AREA (PLANNING AREA #8)

The Silver Creek Planning Area is located on the south side of the City of Manitowoc, between Viebahn Street and Silver Creek Road. The area is bounded on the south by Silver Creek Road, on the east by Lake Michigan, on the north by Viebahn Street, and on the west by I-43.

The area is partially developed with rural residences on septic systems and private wells. There are approximately 150 rural residences in the planning area.

Silver Creek Park and the U. S. Army Reserve Center are located along the lake.

There is some scattered strip commercial development along CTH "CR". Several parcels south of Viebahn Street have been annexed to the City for residential development. Whispering Meadows is a master-planned, clustered manufactured housing development currently under construction, on the south side of Viebahn Street east of So. 35th Street.

Most of the area between So. 10th Street (CTH "LS") and St. Peters Road (So. 26th Street), has been developed with rural single-family homes on private septic systems and wells. Unless there are requests from owners of single-family homes with failed systems, the City does not anticipate significant annexations in this area.

There are several large tracts of land between St. Peters Road and CTH "CR", and north of Silver Creek that could be annexed and served with municipal utilities.

Serving the southern end of the Silver Creek Planning Area would require construction of a new Silver Creek Interceptor. This improvement is not anticipated within the next 2 decades. Areas south of Silver Creek are not included in the 20-Year Urban Service Area.

Development Potential

There are approximately 400-acres of vacant, potentially developable land in the Silver Creek Planning Area that could be annexed and served by the City utility system without major interceptor construction.

If developed at densities averaging between 2 and 4 dwelling units per acre, the area could accommodate between 600 and 1,200 dwelling units with a population ranging from 1,320 to 2,640 persons.

FAR WEST PLANNING AREA (PLANNING AREA #9)

The Far West Planning Area is located on the west side of the City of Manitowoc, east of Silver Lake. The area is bounded on the east by Silver Lake and Silver Lake College, on the south by the south section line of Section 33, on the west by the west section line of Sections 28 and 33, and on the north by Dutch Road.

Serving this area with utilities will require completion of the Upper Silver Creek Interceptor, and extending service lines west of the I-43 Industrial Park. The current time frame for these utility improvements is 5 to 15 years.

At the time that utilities are extended west along USH 151 to serve Planning Area #9, Silver Lake College may wish to annex into the City and connect to the utility. The City and MPU should design

6. DOWNTOWN PLAN

Over the past 2 decades, downtown Manitowoc has transitioned from the City's primary commercial district to a more narrowly-defined specialty district with a mixture of government offices, professional services, specialty retail, and tourist-oriented businesses.

Prior to construction of the Edgewater Mall and Lakeview Center on the City's northeast side and the expansion of commercial development on Calumet Avenue, downtown Manitowoc was the primary shopping district for a regional trade area consisting of nearly all of Manitowoc County and small portions of adjoining counties. Until the 1970's, downtown Manitowoc contained a broad array of general merchandising businesses, and most consumer needs could be met by the downtown businesses. There was a wide range of department stores, clothing stores, restaurants, hardware stores, and pharmacies.

As shopping centers and discount stores with large square footage and traffic generation requirements developed elsewhere in Manitowoc, there was a gradual erosion of the business base and shopper support from the downtown. At the same time, improvements in I-43 and new regional shopping centers in Green Bay, Appleton, and Sheboygan began drawing consumer spending from Manitowoc's overall trade area, thus reducing the number of shoppers that could potentially be attracted to downtown businesses. While many of the core businesses remained in the downtown through the 1980's, the number of shoppers and retail dollars spent downtown continued to decline. The loss of the Schuette Department Store in the early 1990's signaled the departure of one of the last and most important general merchandising retail businesses from the downtown.



Downtown Business

As City officials, business leaders, and property owners began to see the shift in the regional economic and locational shopping patterns, steps were taken to stabilize the downtown and develop new markets. The most promising expanding markets for the downtown are specialty retail, entertainment, and tourism. Other strategies pursued by the City and business community have included retaining government and professional offices, encouraging new residential development, and expanding the marina and lakefront development. Today, the cost of doing business in downtown Manitowoc is very affordable when compared to sites with escalating land prices on the City's southwest side.

The City has worked hard over the past decade to maintain the infrastructure and improve the appearance of the downtown area to make it a more attractive destination for visitors. Most visitors to downtown are impressed by the neat appearance of the downtown and the lakefront improvements.

Some of the specific improvements over the past decade that have stabilized downtown and supported the transition of the economic base of the district include:

- Reconstruction of 8th Street and the 8th Street Bridge and Streetscape program.
- Development of the Wisconsin Maritime Museum.
- Re-establishment of the S.S. Badger/Lake Michigan Carferry Service on the downtown lakefront.

6.A. DOWNTOWN MANITOWOC REVITALIZATION STRATEGY

In the early 1990's, the City and a group of community business leaders formed the Retail 2000 Committee to help revitalize the downtown area. The organization commissioned a consortium of consultants to prepare the Downtown Manitowoc Revitalization Strategy, April, 1993.

This report, and a series of supporting market studies, focused on specific recommendations to help bolster downtown retail and service sectors and attract more shoppers to the area. The study focused on enhancing both local retail spending and attracting new tourism spending in the area. The 1993 report included an analysis of retail sales patterns for downtown Manitowoc. Among the findings were the following:

- Despite population growth in the City since 1990, the regional population will be essentially stable over the long term.
- Approximately 35% of the County's population lives within one-half mile of the downtown core.
- While the overall population appears to be stable to slightly declining, the distribution of people, households, and income across the area appears to favor downtown revitalization--or at least not to pose a substantial hurdle to the revival of downtown.
- Retail businesses along the Calumet Avenue corridor capture approximately 40% of area shoppers; downtown should be capable of capturing 5-7% of the retail trade expenditures in the region -- its level of success to be determined by how well it enhances its competitive position in the market.
- The perception of downtown Manitowoc is that it offers little variety, limited parking, high prices, inconvenient store hours, and "unfriendly" stores.
- Retail opportunities do exist for downtown Manitowoc.

The key recommendation in the report was that downtown Manitowoc needed a single coordinating organization, referred to in the report as Downtown Partnership, Inc. (DPI), to collectively manage the downtown business district and coordinate both private and public sector development. The report recommended formation of a Business Improvement District (BID) as the primary funding vehicle for financing downtown improvements and marketing the district. A BID is essentially a special assessment district that would levy an additional property assessment on downtown properties to fund management as well as physical improvements.

Some of the other specific priorities that the Downtown Manitowoc Revitalization Strategy recommended included:

- Cooperative public and private sector management of downtown business district improvements.
- Coordinating the area's many organizations, businesses, and cultural groups to sponsor downtown events.
- Developing a downtown Business Improvement District as the financing vehicle for downtown improvements and activities.

The key to successful efforts to promote tourism in downtown Manitowoc will involve coordination of both private and public sector efforts. The development of businesses that tourists want to patronize is an obvious private sector responsibility. However, there are a number of very specific steps the City can do to create a setting for private sector investment and further promote downtown tourism. These include:

- Build a direct street and pedestrian connection between the S.S. Badger/Lake Michigan Carferry docking area and downtown Manitowoc via an extension of Quay Street to connect with So. Lakeview Drive.
- Extend the riverwalk system along the south side of the Manitowoc River.
- Relocate and/or consolidate the coal storage facility at the mouth of the Manitowoc River.

Note: The primary users of the coal storage facility are the S.S. Badger and the Manitowoc Public Utilities. At some point, it is anticipated that the S.S. Badger will convert to a fuel source other than coal. The City and MPU should study alternative sites or sources for the MPU coal supply.

- Assist Lakeside Foods to relocate some or all of their lakefront facilities to inland industrial sites in order to create lakefront redevelopment sites.
- Develop lakefront and riverfront housing.
- Attract additional Lake Michigan passenger craft and charters to make stops in downtown Manitowoc.

6.C. DOWNTOWN REDEVELOPMENT SITES

There are a number of sites in the downtown area that are either vacant, underutilized, or in need of substantial rehabilitation. These are sites that the City should target for redevelopment over the next decade.

As part of the effort to promote redevelopment of these sites, the City staff should work with the property owners to help provide site information and technical assistance to prospective developers and businesses. The City can also make available Tax Increment Financing (TIF) and other financial incentives to help stimulate redevelopment and reinvestment in these properties.

Some of the key redevelopment sites and potential reuses include:
(See Key/Rehabilitation/Redevelopment Site Map on page 94)

Site A Busch Agricultural Resources Site (South Riverfront at Quay Street) - Block 219/220
(See detailed site concept plan on page 95)

The Busch Agricultural Resources property on Block 219 is a predominantly open area utilized for parking and periodic shipping of raw materials. This area is leased to the City of Manitowoc from Busch Agricultural Resources, Inc. and is to be used solely for public parking purposes. Busch's grain loading tower is located on Block 221.

The Busch Agricultural Resources site adjoins smaller parcels owned by the City of Manitowoc and Manitowoc Company on Blocks 219 and 220 respectively, and a parcel owned by the Manitowoc Public Utilities on Block 221. The MPU site is used for coal loading.

This site along the south side of the Manitowoc River is expected to remain in its current use as a parking area and shipping site for the near future. However, as opportunities for public acquisition or land exchanges occur, Blocks 219, 220, and 221 should be acquired by the City and redeveloped as riverfront park and trail area, comparable to the north riverbank adjacent to the Maritime Museum.

The proposed site plan for the redeveloped area calls for extensive berming and landscaping around a public parking area. The portion of the site adjoining the river should be developed as a riverfront pathway and pedestrian connection to the Carferry dock. It would be feasible to retain the grain loading tower and design the public elements around the loading facility.

This site should be a high priority City acquisition site.

Site B-1 Village Square Shops - Block 230

A 3-story 27,000-square-foot building. The site has "B-4" Central Business District (CBD) zoning. The site area is 9,000 square feet.

Suitable for continued retail and office use or site redevelopment. Potential new City Hall site. No on-site parking. Reported structural problems.

Site H - Wisconsin Central RR - (West of So. 10th St. at the Manitowoc River - Blocks 148-152, 169-170, 172-173, & 185.

(See detailed site concept plan on page 96)

Current 22-acre outside stone storage and trans-shipment site. Suitable for riverfront or residential redevelopment. Potential for on-site parking and pleasure craft dockage.

Site I - Evergreen Inn (Former Manitowoc Hotel) - Block 166

Current temporary housing for Silver Lake College students. Former major downtown hotel. Suitable for rehabilitation for senior housing, office/retail, or other downtown housing. Limited on-site parking. Full occupancy would require acquisition of additional parking area.

Site J - 100 Block N. 8th Street (east side) - Block 176

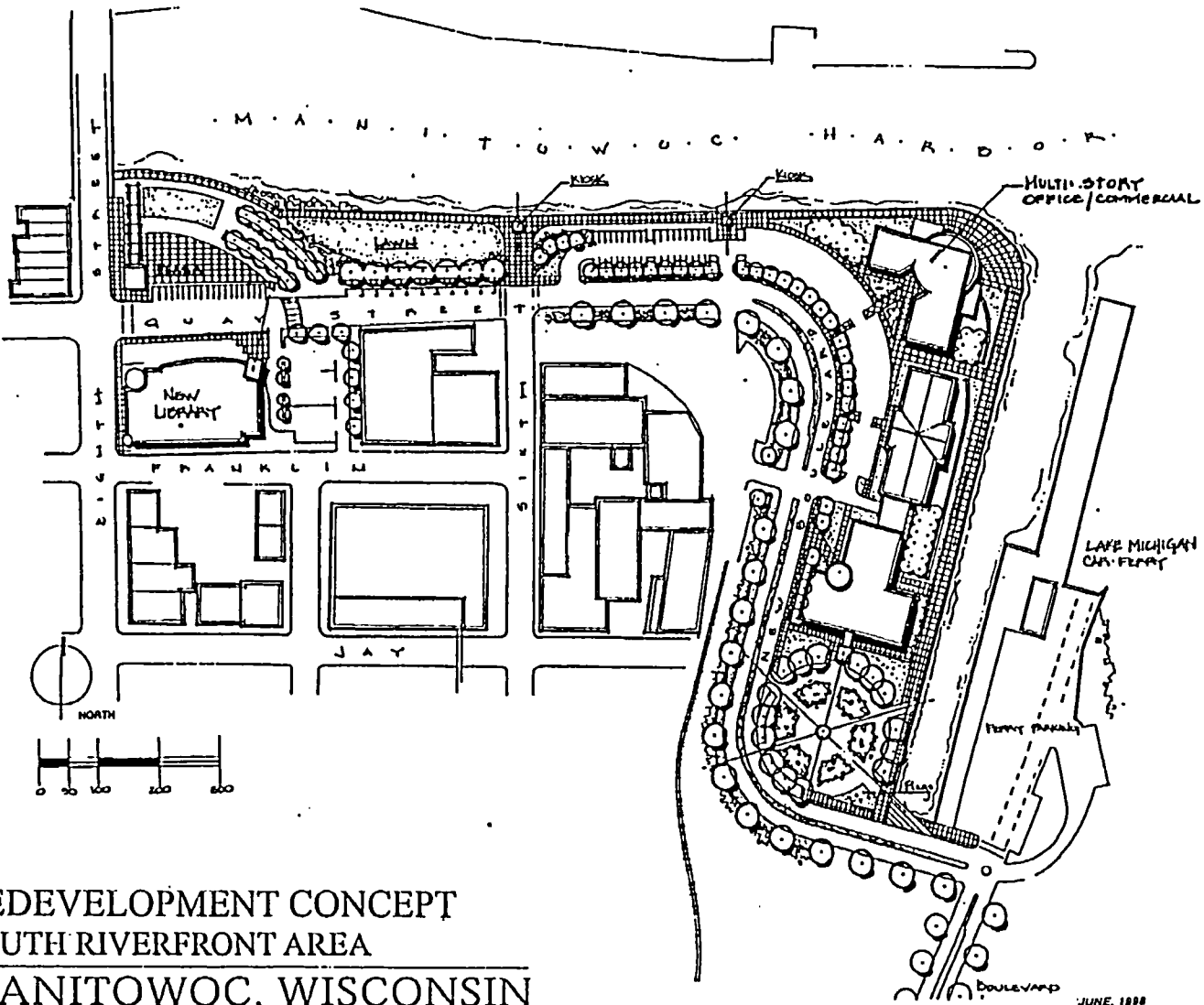
Vacant retail commercial space. Suitable for rehabilitation as retail space. No on-site parking.

Site K - Maritime Drive and 6th Street - Part of Block 177

Vacant land and auto body shop. Suitable for redevelopment for Wisconsin Maritime Museum expansion and/or parking.

Site L - Maritime Drive - Block 178

Vacant warehouse. Suitable for redevelopment of residential, office/retail mixed use, or for Maritime Museum expansion and/or parking. Potential views of Manitowoc Harbor. On-site parking.

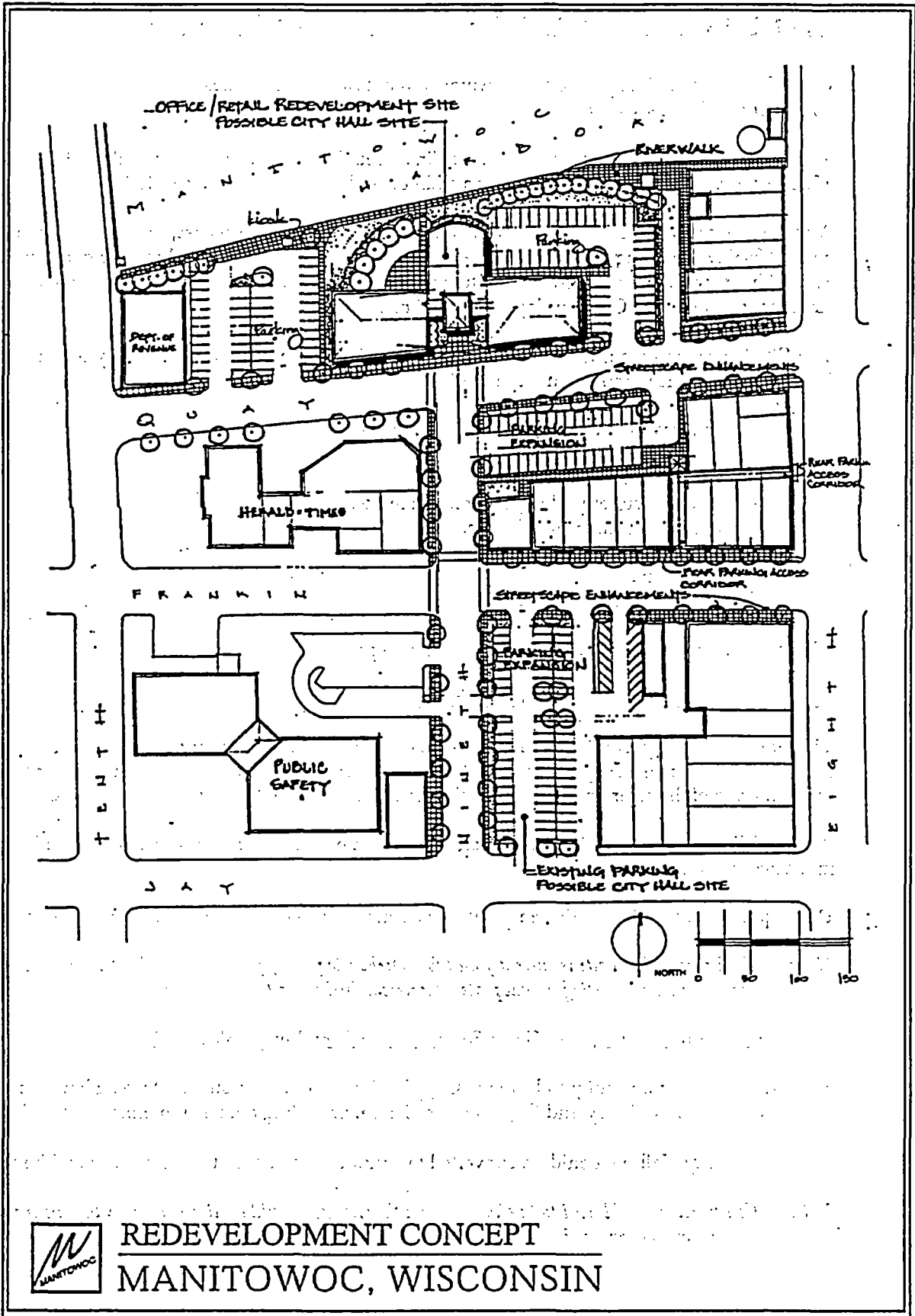


REDEVELOPMENT CONCEPT
 SOUTH RIVERFRONT AREA
 MANITOWOC, WISCONSIN



JIR Incorporated 95

JUNE, 1998



REDEVELOPMENT CONCEPT
MANISTOWOC, WISCONSIN

6.D.CITY HALL RELOCATION SITES

One of the major public projects in downtown Manitowoc over the next several years will be the construction of a new City Hall.

The current City Hall is located at 817 Franklin Street. The east wing of City Hall was built as a hotel in 1888. After City acquisition, there was an addition and major remodeling in 1936.

A space needs analysis completed in July, 1994 by Sommerville Associates, Inc. concluded that the current facility is nearing the end of its useful life. The study recommended replacing the existing City Hall with a new 45,000-square-foot structure in the near future. The facility will require access to off-street parking areas for City employees and visitors.

The City is currently planning to construct such a facility in the year 2001. The City began reserving funds for the City Hall replacement in 1993.

Site selection criteria for a new City Hall should include:

- Central downtown location.
- Adequate off-street parking on or near the site.
- A minimum site area of 1.5-acres.
- Street frontage on major arterial.
- High visibility.
- Compatible adjoining uses.

Alternative locations for a new City Hall site (not in priority order) include:

Alternative Site A - Lakeside Foods - Block 225

This site offers an opportunity to have shared parking with the new library and would consolidate municipal facilities on a single block. Redevelopment of the site would be a major stimulus to revitalizing the south side of the river and converting the industrial waterfront to tourist-oriented uses.

A City Hall at this site would have a dramatic presence on the water and would symbolize Manitowoc's maritime heritage.

Development on this site would require the acquisition and relocation of the Lakeside Foods facility.

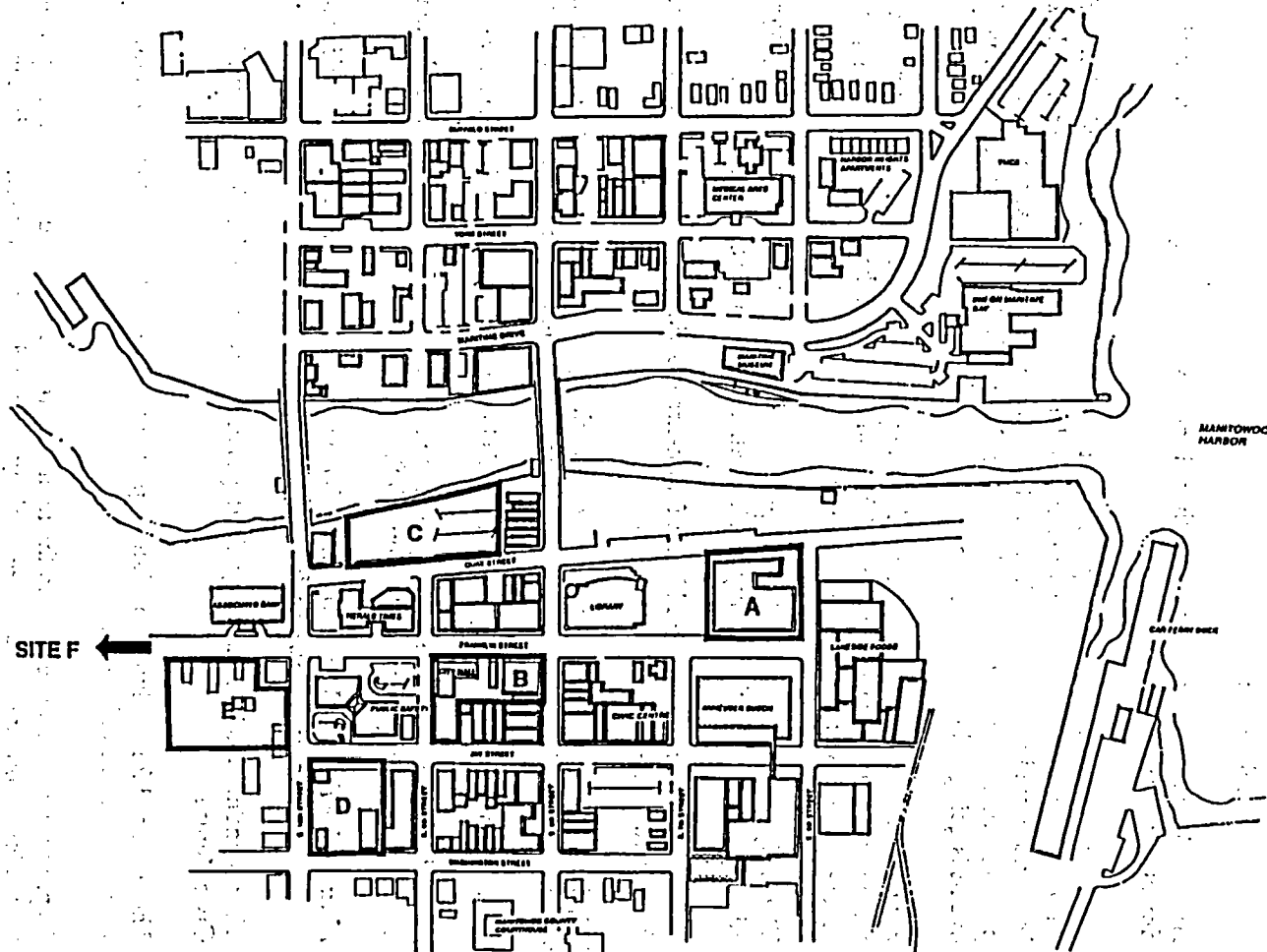
Note: The Lakeside Food site is currently used for warehousing. Any potential consideration of this site would be dependent on negotiating an adequate replacement facility for Lakeside Foods.

Alternative Site B - Existing City Hall / Former Penney's Building - Block 230

This site offers an opportunity to have the City Hall front on So. 8th Street. It would have close proximity to the new library and Capitol Civic Centre, providing a nucleus of municipal facilities.

The existing City Hall site could be converted to parking after completion of the new building.

Note: Construction would need to be phased so that the City staff could continue to occupy the existing structure during construction on the Penney's site.



DOWNTOWN AREA
 POTENTIAL CITY HALL SITES
 MANITOWOC, WISCONSIN



6.E. DOWNTOWN PARKING

A comprehensive downtown parking study was conducted in 1992 by HNTB, Inc. The key findings of the study include the following:

- At current business occupancy rates there is no severe parking problem on a typical weekday in downtown Manitowoc.
- There are periodic shortages of parking in the vicinity of the Capitol Civic Centre during performance periods. The study recommended leasing additional spaces from Lakeside Foods, Inc. and providing lighted walkways. The study indicated that at some point in the future, a parking structure could be needed near the Capitol Civic Centre if parking for peak-attendance events is going to be accommodated.
- Fifty (50) additional spaces are needed in the vicinity of the Manitowoc County Courthouse to serve peak courthouse activity days. The study indicated that on nonpeak days, there is not a severe shortage in the Courthouse vicinity.
- The study recommends that the City purchase the Pietroske Property on Block 227 to provide additional parking in the vicinity of City Hall and the Public Safety Building.
- Adjust parking meter rates and hours for on-street parking stalls and adjust long-term lease rates for off-street City-owned parking lots.

Since 1993, the City has implemented many of the parking space management recommendations. Based on interviews and field observations in the summer of 1997, the following general conditions prevail:

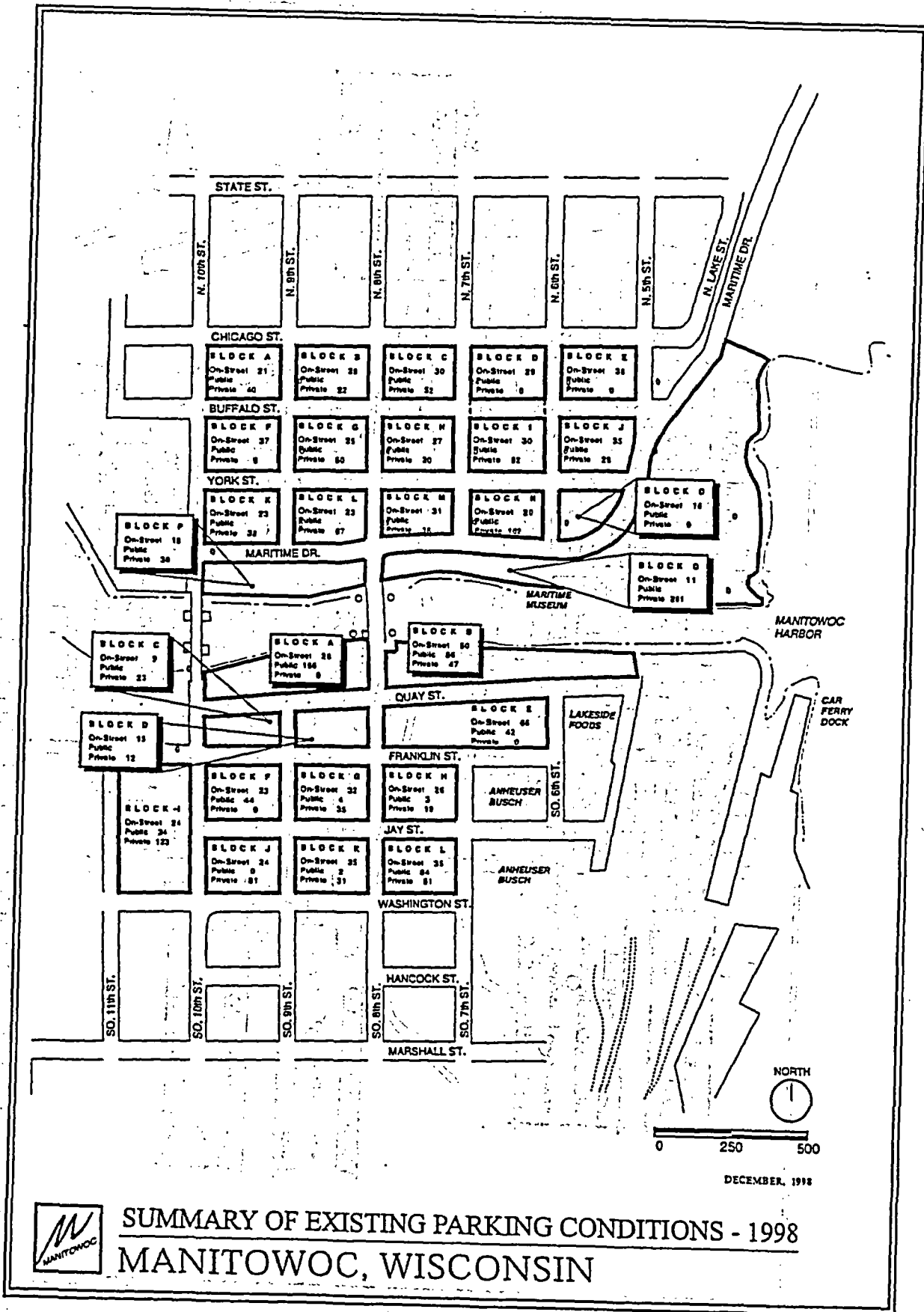
- There is no overall shortage of parking stalls in the downtown area for typical weekday use.
- Lack of adjacent or on-site parking has been cited as one of the problems marketing several of the downtown properties fronting on 8th Street.

Note: The Potential Municipal Parking Lot map on page 106 shows areas that could be converted to parking, as new parking demand is generated in the Downtown area.

- There continues to be peak-usage shortages in the vicinity of the County Courthouse and Capitol Civic Centre.
- There is need for additional peak-hour parking on the north side of the downtown area in the vicinity of the Strand Theatre.
- As properties are redeveloped in the future, there will be a need to provide replacement parking for the loss of off-street or on-street parking stalls and increased parking demand generated by new development.

Based on current demand there is a sufficient supply of off-street stalls to meet current parking demand. However, additional stalls should be provided as new development occurs in the downtown area. Through the site plan review process, the City should either require private developers to provide additional off-street, or additional municipal parking stalls should be provided to meet the needs of new development concurrent with new construction.

It should be noted that the City staff and brokers of properties on the south side of the downtown area believe that lack of adjacent off-street parking is a limiting factor in the ability to attract buyers or tenants



**SUMMARY OF EXISTING PARKING CONDITIONS - 1998
MANITOWOC, WISCONSIN**

7. CIRCULATION PLAN

7.A. STREETS AND HIGHWAYS

REGIONAL HIGHWAY SYSTEM

The City of Manitowoc has excellent access to the regional highway system via I-43, which links the Manitowoc area directly to Green Bay to the north, and Milwaukee and Chicago to the south. The City has principal access points to I-43 via the Calumet Avenue (USH 151) interchange on the southwest side of the City, Waldo Boulevard (USH 10/STH 42) on the northwest, and STH 310 to the north.

East-west access is more limited, due to the natural barrier of Lake Michigan to the east and Lake Winnebago to the west. USH 151 is the primary arterial highway linking Manitowoc to Fond du Lac and Madison to the southwest. USH 10 is the primary east-west arterial providing access to the Appleton/Fox Cities area to the west. USH 29 via I-43 in Green Bay, links Manitowoc to the northwest part of Wisconsin.

STH 42 is a north-south minor arterial linking the City with Sheboygan to the south, and Door County to the north.

County Trunk Highways "B", "CR", "JJ", "LS", "P", "Q", and "R" are all classified as major collectors providing important links between the City and other parts of Manitowoc County.

County Trunk Highway "DD" (Mirro Drive) is a minor collector linking the City with STH 310 north of the City.

CITY STREET AND ROADWAY SYSTEM

The City maintains approximately 155 miles of paved streets within its corporate limits. An additional 46 miles of paved roadway are in the Manitowoc Urban Planning Area.

City Arterial Streets

The highest functional classification for City streets is arterial. Arterials are the key corridors linking the downtown area and various other neighborhoods to the regional highway system. Many of the principal arterials in Manitowoc are also classified by the WisDOT as state or federal highway "business routes."

The primary long-range planning issue that is related to the arterial roadway system is maintaining the efficiency of the arterial corridors as carriers of through traffic. Efficient movement of traffic, particularly between downtown and I-43, is essential for the economic prosperity of Manitowoc, and for the businesses and industries that rely on them for access to the regional highway system. Direct driveway access onto arterials should be controlled, as much as feasible, to reduce or eliminate "friction" and safety hazards.

Minor Arterials

Minor arterials are streets and/or highways that serve major activity centers and connect to the regional highway system, but carry lower traffic volumes than principal arterials.

The following criteria are used to classify minor arterial streets:

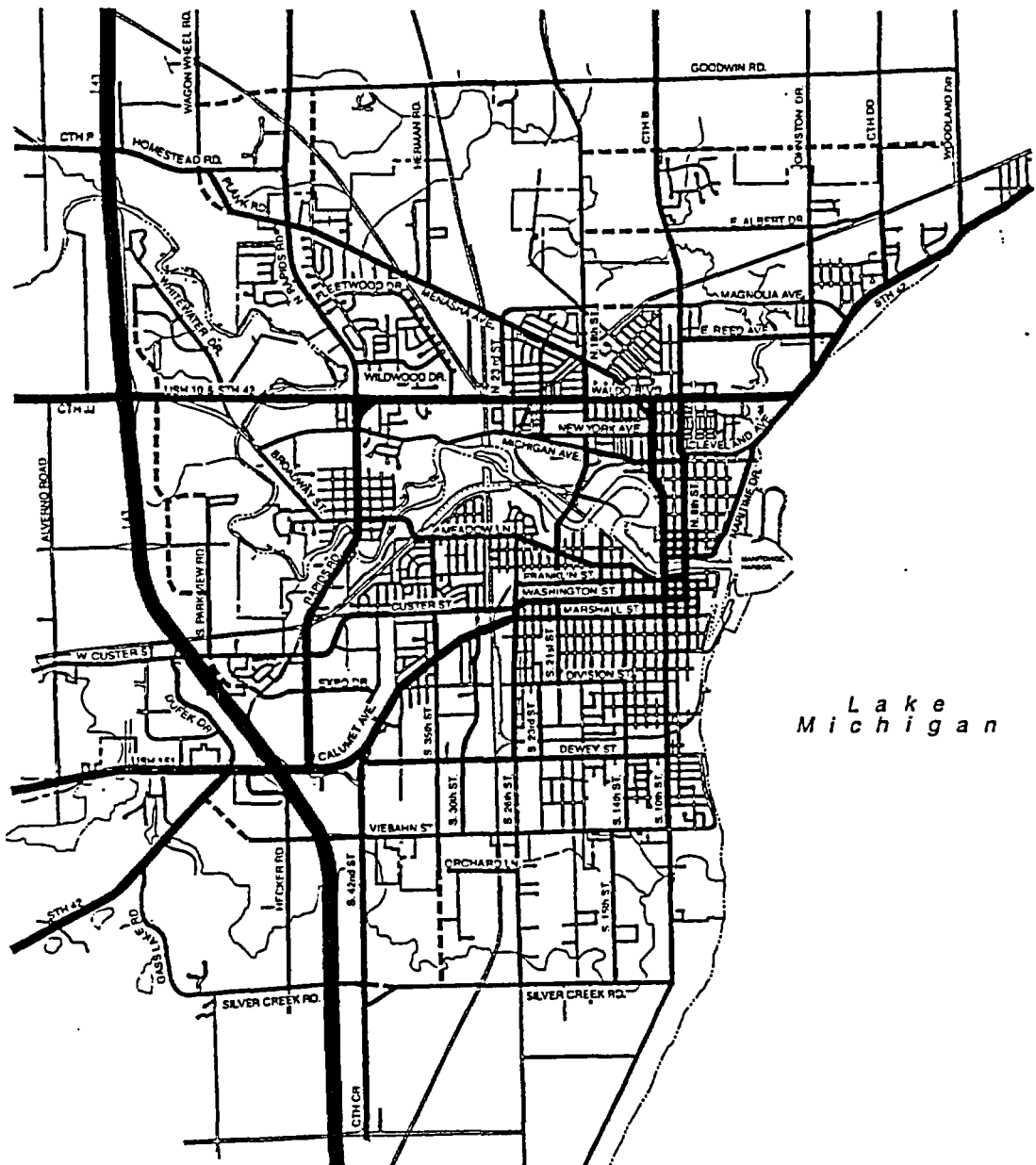
Route Continuity:	Minor arterials connect to other primary or minor arterials or to the regional arterial network.
Spacing:	1 mile in urban areas; 2 miles outside urban areas.
Traffic Volumes:	More than 6,000 ADT.
Right-of-Way:	80' or more, as warranted by traffic conditions.
Pavement Width:	42' to 48' or more, as warranted by traffic conditions.
Number of Lanes:	2 to 4 with turning lanes, as needed.
Parking:	Remove on-street parking as needed to provide additional lanes for moving traffic.
Access Guidelines:	Minimum of 300' between public street intersections. Minimum of 150' between driveways and public street intersections. Minimum of 100' between driveways. Minimize new single-family or 2-family residential driveways.
Sidewalks:	Provided as warranted by adjoining land uses.

Right-of-Way:	66' to 80'.
Pavement Width:	36' - 42' in residential areas; wider pavement widths may be required in industrial districts with heavy truck traffic.
Number of Lanes:	2 driving lanes and 2 parking lanes; parking lanes may be converted to driving lanes, if warranted by traffic conditions.
Parking:	On-street parking, except where removed due to traffic or safety conditions.
Access Guidelines:	Minimum of 300' between public street intersections. Minimum of 100' between driveways and public street intersections. Minimum of 50' between driveways.
Sidewalks:	Provided as warranted by adjoining land uses.

The following streets are classified as collectors:






North-South Collectors

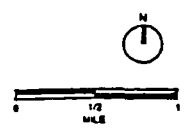
Fleetwood Drive from Platt Street to Waldo Boulevard
 Platt Street from Fleetwood Drive to Menasha Avenue
 Mirro Drive from just north of Albert Drive to the City limits
 N. 18th Street from Menasha Avenue north to the City limits (CTH "Q")
 So. 26th Street from Viebahn Street to Silver Creek Road
 N. 21st Street from Menasha Avenue to Michigan Avenue
 N. 23rd Street from Waldo Boulevard to Menasha Avenue
 N. 7th Street from Chicago Street to Maritime Drive
 N. 9th Street from Chicago Street to Maritime Drive
 So. 7th Street from Franklin Street to Marshall Street
 So. 8th Street from Marshall Street to Madison Street
 So. 9th Street from Quay Street to Marshall Street
 So. 10th Street from Viebahn Street south to City limits (CTH "LS")
 So. 14th Street from Franklin Street to Viebahn Street
 So. 15th Street from Viebahn Street to Silver Creek Road
 So. 16th Street from Washington Street to the railroad north of Wollmer Street
 So. 21st Street from Marshall Street to Division Street
 So. 23rd Street from Division Street to Dewey Street
 So. 26th Street from Western Avenue to Franklin Street
 So. 30th Street from Custer Street to Viebahn Street
 So. 35th Street from Calumet Avenue to Orchard Lane
 Vista Road from West Custer Street to Willow Way
 Hecker Road
 Dufek Drive
 Herman Road
 Wagon Wheel Road
 So. Parkview Road
 Broadway Street from N. Rapids Road to Michigan Avenue
 Whitewater Drive
 Woodland Drive



Lake Michigan

STREET CLASSIFICATION

-  INTERSTATE
-  PRINCIPAL ARTERIALS
-  MINOR ARTERIALS
-  COLLECTORS
-  PROPOSED COLLECTORS



**CIRCULATION PLAN
MANITOWOC, WISCONSIN**

Calumet Avenue - So. 26th Street to Grand Avenue

This project will include rehabilitation and resurfacing of the existing pavement and removal of the mountable curb. The project should also include extension of the Calumet Avenue Beautification Program. The project was formerly included in the WisDOT Six Year Improvement Program but was eliminated. The City should ask for this project to be restored to the Six Year Improvement Program. It is anticipated that the project would be funded 25% by the City and 75% by WisDOT.

Target Date: 2003

Washington Street - So. 8th Street to So. 25th Street

This project involves resurfacing and rehabilitation of Washington Street from So. 8th Street to So. 25th Street.

Target Date: 2001

N. 8th Street - Park Street to Waldo Boulevard

This section of roadway is scheduled for asphalt resurfacing. The project is included in the current WisDOT Six Year Improvement Program.

Target Date: 2001

Michigan Avenue - Railroad Tracks to Indian Bluff Estates Subdivision

This project involves reconstruction of Michigan Avenue from the railroad tracks to Indian Bluff Estates Subdivision. The project will include new pavement, curbs and gutters, new underground facilities, and a proposed separate bicycle/pedestrian sidepath. The project will include several retaining walls.

Target Date: 2001

Magnolia Avenue - New Sections and Bridge Over the Little Manitowoc River

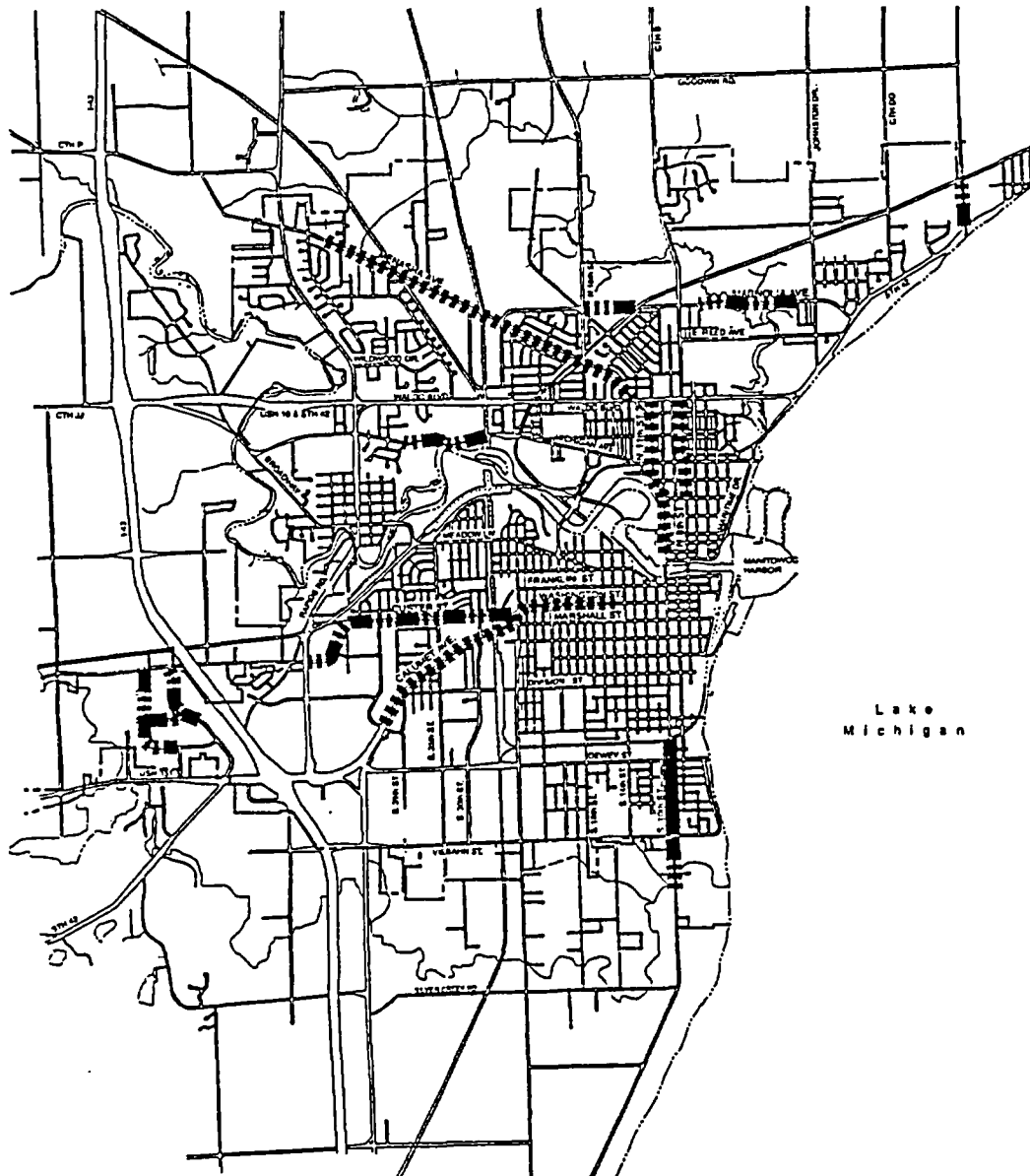
This project involves construction of a new bridge over the Little Manitowoc River for the extension of Magnolia Avenue. The Magnolia Avenue street construction will include sections from Daisy Drive to N. 6th Street, from the Wisconsin Central railroad tracks to N. 18th Street to Menasha Avenue.

Target Date: 2004

So. 10th Street - Railroad Crossing to Viebahn Street

This project involves reconstruction of So. 10th Street from the railroad crossing to Viebahn Street. The reconstruction will include new concrete pavement, curb, and handicap ramps. The project may involve rehabilitation of underground facilities.

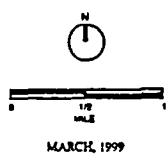
Target Date: 2002



SHORT-TERM STREET IMPROVEMENTS (1999-2002)

-  CITY PROJECTS
-  WIS D.O.T. SIX YEAR PROGRAM PROJECTS

Lake Michigan



MARCH, 1999



SHORT-TERM IMPROVEMENT PROJECTS (1999-2002)
MANITOWOC, WISCONSIN

7.B. TRANSIT SYSTEM

The Manitowoc Transit System is a publicly-owned and operated system serving the cities of Manitowoc and Two Rivers. One route serves the City of Two Rivers, and 5 routes serve the City of Manitowoc. The routes are circular routes that serve all areas of the City. The turnaround times for some of the routes are as much as 2 hours. In 1992, the ridership was 347,113 persons; the 1996 ridership was 288,447 persons; and the 1997 ridership was 275,398.

The system has continually upgraded its equipment and extended its routes and hours of operation, as justified by ridership and availability of funds. Most of the transit system improvements are funded 80% by the federal government and 20% by the City.

In September, 1998, the City of Manitowoc purchased .82-acres from a local bank for use as an intermodal transfer terminal. The property was formerly used as a drive-thru bank service facility and contains a 640-square foot building with drive-thru and user parking amenities. The existing building will be remodeled and the site will be repaved. These improvements were completed in late 1998. Additional site and other user amenities will be necessary as the area develops and usage increases.

SHORT-TERM CAPITAL IMPROVEMENTS (1999 - 2002)

Install Electronic Fare Boxes

Target Date: 1999

Replace Heavy-Duty Brake Lathe

Target Date: 1999

Replace Second Bus Hoist

Target Date: 1999

Replace Fluorescent Lighting in Garage

Target Date: 1999

Computer Hardware/Software Upgrade

Target Date: 1999

Develop a Downtown Transfer Hub and Transfer Station

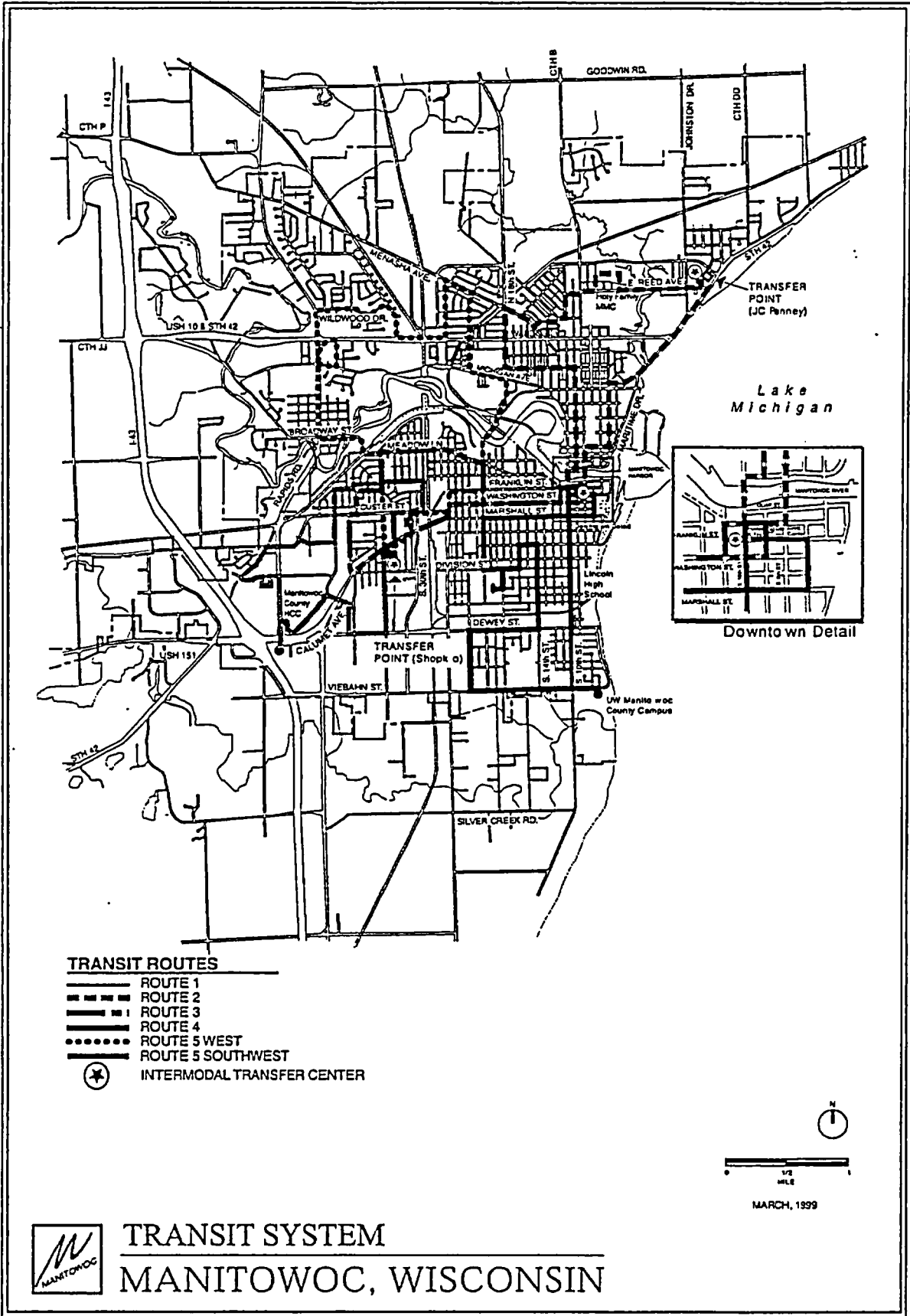
Target Date: 1999

Replace Tire Machine

Target Date: 2000

Replace Two 1989 35' Coaches with Two 25' Coaches

Target Date: 2001



The carferry dock is located along So. Lakeview Drive near the Reiss (Koch) coal dock, north of the wastewater treatment plant. Public transit service is available to the users of the ferry to transport them to downtown locations in the City.

The City has worked closely with the Lake Michigan Carferry Service to provide dockage and ticketing facilities. Over the next 20 years, the City plans to improve the dockage area, and provide direct street and pedestrian access from the ferry dock to downtown Manitowoc.

A key component of the City's lakefront improvement plans will be the relocation of the coal storage facilities utilized by the S.S. Badger. The City will need to closely coordinate the lakefront redevelopment effort to assure no discontinuance of carferry service.

With the further improvement of the lakefront, the City hopes to attract other Lake Michigan commercial pleasure craft and cruise ships to use the Manitowoc Harbor.

8. PUBLIC FACILITIES PLAN

8.A. MUNICIPAL PUBLIC FACILITIES

CITY HALL

The City Hall is located at 817 Franklin Street. The municipal offices include the office of the Mayor, assessor, attorney, building inspector, engineer, planning, and finance. The east wing of City Hall was built as a hotel in 1888. After City acquisition, there was an addition and major remodeling in 1936.

A Public Facilities Needs Analysis completed in July, 1994 by Sommerville Associates, Inc. concluded that the current facility was nearing the end of its useful life. The study recommended replacing the existing City Hall with a new 45,000-square-foot structure in the near future. The facility will require access to approximately 100 parking stalls, based on a parking ratio of 1 stall per 300 square feet of net public building area.

The City is currently planning to construct such a facility in the year 2000-2001 at an estimated cost of \$6,000,000. The City began reserving funds for the City Hall replacement in 1993.

Alternative locations for a new City Hall and disposition recommendations for an existing site are described in Section 6.D.

EDUCATION AND ARTS CENTER

The Education and Arts Center was constructed in 1931 and originally housed a vocational school. Since the facility was purchased by the City, it has been used for a wide range of community based activities. At various times, the facility has been used by Lakeshore Technical College, the City of Manitowoc Parks and Recreation Department, and various private organizations. One of the most recent uses of the structure was as a youth center.

The building is constructed of solid masonry with cast-in-place foundations and floors. The Public Facilities Needs Analysis indicated that the building is structurally sound. The building needs some repairs to bring it into full code compliance and to meet Americans with Disabilities Act requirements. The most costly needed improvements are a new elevator and HVAC renovation.

Future use of the structure is uncertain. The facility is currently managed by the Parks and Recreation Department, but is not regularly used for programmed activities. As of this writing, the only tenant in the building is a local dance company.

The City has already taken steps to sell the property at a nominal price. The preferred purchaser would be an individual or organization (not tax exempt) that would upgrade the facility and property for a use or uses compatible with the surrounding area.

PUBLIC LIBRARY

The City of Manitowoc has recently completed construction of a new public library facility on So. 8th Street between Quay and Franklin Streets.

The new library is 52,000 square feet in size and includes several meeting spaces, a children's programming area, a board room, 4 study rooms, and collection space. The 2-story building is

RAHR-WEST ART MUSEUM

The Rahr-West Art Museum is a City-owned museum consisting of the Joseph Vilas mansion and 2 gallery additions, totaling 23,870 square feet. The original home was constructed in 1891 and the gallery spaces were added in 1974 and 1986. Attendance in 1997 was estimated at 22,850.

The building is in excellent condition, and only needs minor repairs and maintenance.

No major changes or improvements are recommended, other than routine maintenance and upkeep.

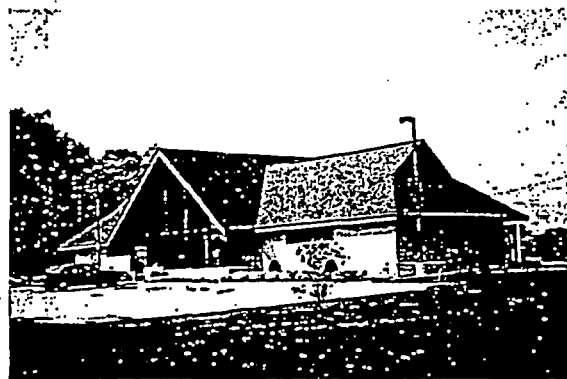
SENIOR CITIZENS CENTER

The Senior Citizens Center is a 22,059-square-foot facility constructed in 1979 to house a wide range of activities for the elderly citizens of Manitowoc. The facility is in good condition, and does not require major renovation.

The major improvements recommended in the Public Facilities Needs Analysis prepared by Sommerville Associates in July, 1994 include replacing floor tiles, and accessibility improvements to bring the structure into full ADA compliance.

MANITOWOC VISITORS AND CONVENTION BUREAU (MVCB) CENTER

The MVCB is a 5,808-square-foot facility located on Calumet Avenue near the I-43/USH 151 interchange. The facility was constructed in 1993 to promote tourism and provide visitor information. On average, over 50,000 visitors per year use the facility. In 1998, the visitor count was 57,567 persons, an increase of 11.8% above 1994 levels.



The building is in good condition, and the only improvements recommended in the Public

Facilities Needs Analysis prepared by Sommerville Associates in July, 1994 are cosmetic *Manitowoc Visitor Center* improvements, minor plumbing and electrical improvements, and accessibility improvements to meet ADA requirements.

MUNICIPAL BUS SERVICE GARAGE

The Department of Public Works (DPW) facility is located at So. 35th Street and Viebahn Street. The main facility houses the City garage, DPW offices, and a repair shop. The building was constructed in 1971. A transit facility was added in 1978. The total size of the building is approximately 72,415 square feet.

The Public Facilities Needs Analysis prepared by Sommerville Associates in July, 1994 indicates that the building is structurally sound and adequately sized to meet the City's need for the foreseeable future. The only improvements recommended include renovation of the plumbing and electrical systems and ADA compliance improvements.

The building is in very good condition, and is adequately insulated for a building of this type. There does not appear to be any architectural building code violations.

8.B. MANITOWOC PUBLIC SCHOOL FACILITIES

The City of Manitowoc is served by the Manitowoc Public School District (MPSD) and a variety of parochial schools. The MPSD serves a 93-square-mile area, which includes the City and a large unincorporated area west and south of the City.

EXISTING SCHOOL FACILITIES

The district has 10 public schools, which include a kindergarten center, 6 elementary schools, 2 junior high or middle schools, and 1 high school. The public school enrollment at the end of the school year in 1997 was 5,794. Enrollment at the beginning of the 1998 session was 5,791.

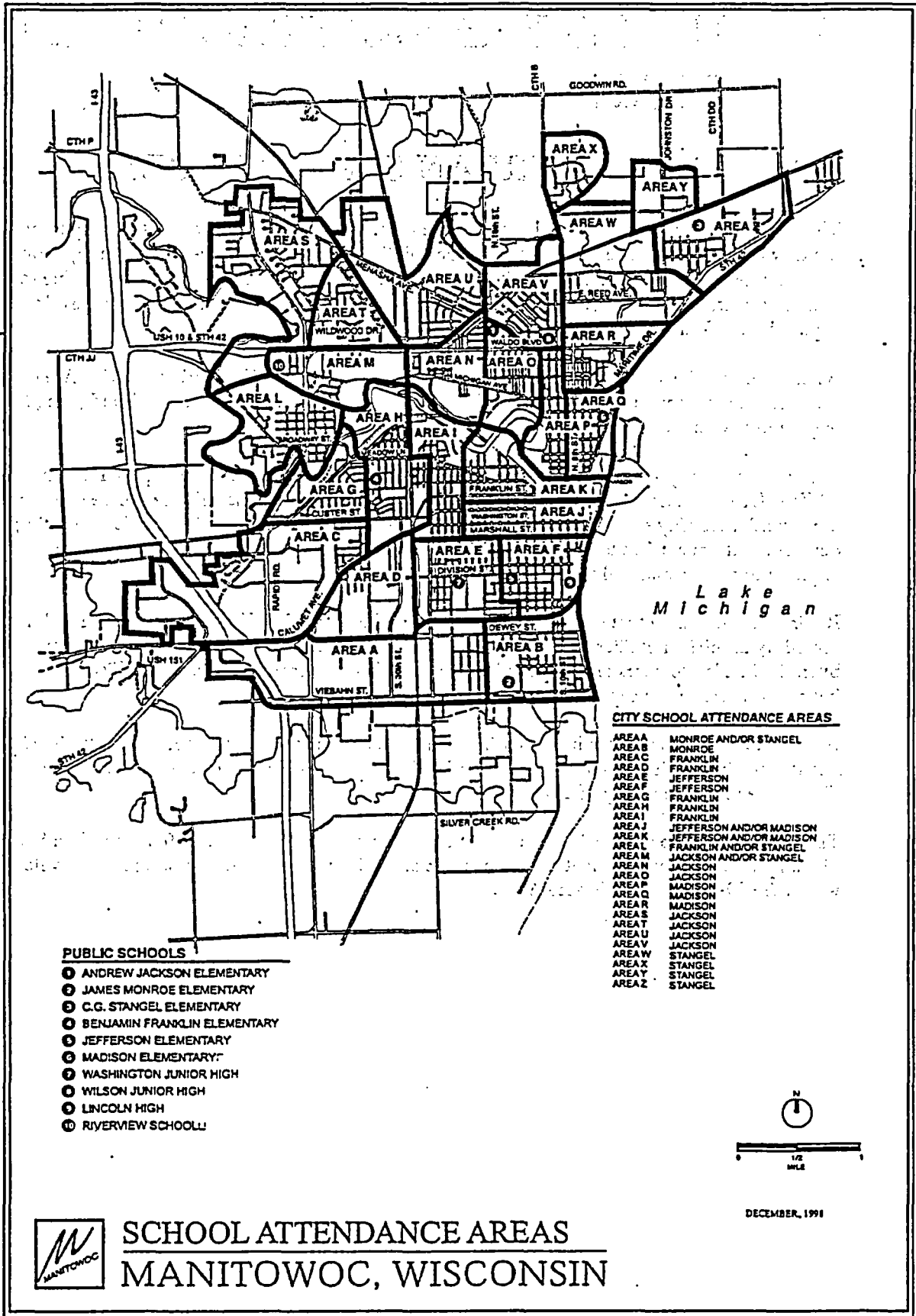
Facilities in the Manitowoc School District include:

School Facility	Enrollment	
	1997	1998
Riverview School 4400 Michigan Avenue (Kindergarten)	539	480
James Monroe Elementary School (Grades 1-6)	423	395
Benjamin Franklin Elementary School (Grades 1-6) 800 So. 35th Street	414	445
C.G. Stangel Elementary School (Grades 1-6) 1002 E. Cedar Avenue	415	406
Andrew Jackson Elementary School (Grade 1-6) 1201 Menasha Avenue	460	470
Jefferson Elementary School (Grade 1-6) 1402 Manila Street	459	472
Madison Elementary School (Grades 1-6) 701 N. 4th Street	268	269
Washington Junior High School (Grades 7-9) 2101 Division Street and	705	748
Wilson Junior High School (Grades 7-9) 1201 N. 18th Street	723	715
Lincoln High School (Grades 10-12) 1433 So. 8th Street.	1,388	1,391
Totals	5,794	5,791

Source: Manitowoc Public School District, September, 1998.

have the greatest amount of growth, particularly of households with school-age children. A combined site should be 60 to 80-acres.

4. A future elementary school site should be acquired in, or near, the So. Parkview Road area west of the Manitowoc River and north of Custer Street. This is a proposed residential development district that is likely to have a high proportion of households with school-age children.
5. The School District should take into consideration maintaining and enhancing the concept of "neighborhood schools" in siting schools and delineating attendance areas. A key concept of this Comprehensive Plan is to emphasize residential neighborhoods as the "building blocks" of the community. In siting schools, key considerations should be maximizing opportunities for children to walk to schools versus busing, and the placement of schools in locations that will be the center of residential neighborhoods. The recent reconstruction of Jefferson School supports this recommendation.
6. Where feasible, public and parochial schools should be located adjacent to existing or planned City parks, to enable shared recreation and athletic facilities.



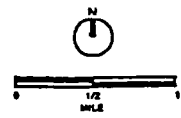
Lake Michigan

CITY SCHOOL ATTENDANCE AREAS

AREA A	MONROE AND/OR STANGEL
AREA B	MONROE
AREA C	FRANKLIN
AREA D	FRANKLIN
AREA E	JEFFERSON
AREA F	JEFFERSON
AREA G	FRANKLIN
AREA H	FRANKLIN
AREA I	FRANKLIN
AREA J	JEFFERSON AND/OR MADISON
AREA K	JEFFERSON AND/OR MADISON
AREA L	FRANKLIN AND/OR STANGEL
AREA M	JACKSON AND/OR STANGEL
AREA N	JACKSON
AREA O	JACKSON
AREA P	MADISON
AREA Q	MADISON
AREA R	MADISON
AREA S	JACKSON
AREA T	JACKSON
AREA U	JACKSON
AREA V	JACKSON
AREA W	STANGEL
AREA X	STANGEL
AREA Y	STANGEL
AREA Z	STANGEL

PUBLIC SCHOOLS

- ① ANDREW JACKSON ELEMENTARY
- ② JAMES MONROE ELEMENTARY
- ③ C.G. STANGEL ELEMENTARY
- ④ BENJAMIN FRANKLIN ELEMENTARY
- ⑤ JEFFERSON ELEMENTARY
- ⑥ MADISON ELEMENTARY
- ⑦ WASHINGTON JUNIOR HIGH
- ⑧ WILSON JUNIOR HIGH
- ⑨ LINCOLN HIGH
- ⑩ RIVERVIEW SCHOOLS



DECEMBER, 1991



**SCHOOL ATTENDANCE AREAS
MANITOWOC, WISCONSIN**

9. UTILITY INFRASTRUCTURE PLAN

9.A. 20-YEAR URBAN SERVICE AREA

The 20-Year Urban Service Area delineates the outer boundary of the area that is likely to be served by the City of Manitowoc and Manitowoc Public Utilities within the next 20-year planning period. Over the next two decades, the City should plan its infrastructure improvements to be able to provide sanitary sewer, water utilities, and electric power, as well other municipal services, to developments within the 20-Year Urban Service Area boundary.

As noted in previous sections, serving all of the area within the 20-Year Urban Service Area will require some major infrastructure investments. The City needs to begin anticipating and budgeting for these major improvements well in advance of construction.

Because of the magnitude of some of the infrastructure investments that are required to serve the entire 20-Year Urban Service Area, new funding sources and financing tools will need to be considered. Most importantly, the City should consider creating area-wide assessment districts and/or collecting development impact fees to finance some of the major sanitary sewer interceptor extensions that will be required to service planned urban expansion areas.

It is important to note that not all of the area within the Year 2020 Urban Service Area will necessarily be served by municipal utilities, since requests for annexation and extension of utilities are generally initiated by individual landowners or groups of landowners. Under current State law, the City is not able to initiate annexations, except under a few specific circumstances.

In order to achieve some predictability in planning major infrastructure improvements, the City should initiate meetings with key landowners of undeveloped parcels in the 20-Year Urban Service Area to discuss the probable timing of development proposals.

The City should also initiate discussions with the affected towns within the 20-Year Urban Service Area to discuss phasing of development and extensions of service to some of the existing rural development areas within the 20-Year Urban Service Area.

9.B. SANITARY SEWER AND WASTEWATER TREATMENT SYSTEM

WASTEWATER TREATMENT PLANT

The City owns and operates a wastewater treatment plant located at 1015 So. Lakeview Drive. It is a secondary treatment facility with the additional treatment step of sand filtration. The design average day hydraulic capacity of the existing plant is 15,500,000 gallons per day, with an average flow of 9,620,000 gallons per day. Solids generated in the treatment process are first treated by anaerobic digestion, and then hauled as a liquid to City-owned off-site storage lagoons. Final disposal is by land application on farm fields.

The collection system is served by a separate sanitary and storm sewer system. There are no known combined sewers located within Manitowoc. The sanitary sewer system is a conventional gravity flow system with sewer diameters ranging from 4 to 60 inches. There are 3 major and 11 secondary lift stations that serve the system.

The treatment facility has been generally constructed in 3 major projects. The original plant, placed into operation in October, 1940, provided primary treatment with sludge digestion. A major addition of the plant, completed in 1959, provided secondary treatment facilities using rock media trickling filters. The most recent major project was completed in 1972. This project included expanded trickling filter treatment capabilities, new secondary clarification, sand filtration, chemical feed and maintenance facilities, and an operations and maintenance building. A number of other modification and improvement projects have taken place on the site, including the most recent chlorination/dechlorination system revisions.

An upgrade to the treatment plant began in November 1998. The improvements are related to replacing or renovating outdated, worn out, and inefficient structures and equipment in order to provide a reliable, efficient facility for future years.

Along with the treatment plant, an industrial pretreatment program has been in position since the early 1980's. Twenty five industries are incorporated into this program. The effectiveness of this program contributes to the continuing compliance of the treatment plant.

SEWAGE COLLECTION SYSTEM

Sanitary sewer service is provided to all the developed areas in the City. The sewage collection system is a conventional gravity flow system with sewer diameters ranging from 4 to 60 inches. There are 3 major and 11 secondary lift stations that serve the Manitowoc area.

In August, 1997, the entire sewage collection system was evaluated by Rust Environmental & Infrastructure, Inc. (RUST), in a study entitled Sanitary Sewer Capacity Study. The study identifies many short-term improvements needed to maintain capacity in the existing system.

An earlier study prepared by Brey, Stuewe & Braun, Inc. in 1992 entitled Engineering Report on the Sanitary Sewer System, describes long-term improvements needed in the system to serve future growth areas.

Force Main Extension on Maritime Drive
(Estimated Cost: \$745,000)

Approximately 5,300 feet of the Maritime Drive interceptor sewer does not have the capacity to carry wet weather flows. The under-capacity segment of this interceptor ranges from 24" to 30" inches. The under-capacity line interceptor extends from the intersection of Maritime Drive and Cleveland Avenue, and continues south and then east on Maritime Drive to 6th Street, and south on 6th Street to Quay Street. The recommended improvements include construction of a new 15" force main extending 4,500 feet from the Cleveland Avenue Lift Station to the upstream side of the river siphon, and then constructing 354 feet of 42" sewer to the intersection of 6th and Quay Streets.

In addition to the improvements recommended by RUST in the Sanitary Sewer Capacity Study, the City has anticipated the following sewer improvements in its 1997 to 2001 Capital Improvement Program:

N. 30th Street - Fairmont Street to Menasha Avenue

This project includes construction of new sanitary and storm sewers along N. 30th Street. This project was completed in 1998.

East Ivy Lane, East Horseshoe Drive, Spruce Drive and River Heights Subdivision

This construction project consists of a sanitary and storm sewer system to serve older annexed areas that are scheduled for paving.

Target Date: 1999

N. 10th/N. 11th Streets - York to Waldo Boulevard

This project involves rehabilitation of sanitary and storm sewers as part of the street improvement project on N. 10th and N. 11th Streets.

Target Dates: 1999 - 2000

Calumet Avenue and So. 26th Street Intersection

This project involves construction of sanitary and storm sewers at the time the Calumet Avenue/ So. 26th Street intersection is relocated and reconstructed.

Target Date: 2001

Magnolia Avenue

This project includes construction of new sanitary and storm sewers at the time Magnolia Avenue is extended from Daisy Street to N. 6th Street, and from the railroad tracks to N. 18th Street.

Target dates: 2001 and 2002

- Construction of a 15" relief sewer on Menasha Avenue between N. 24th Street and Herman Road. This interceptor will provide relief for the Fleetwood Interceptor, and expand capacity to serve the northwest residential expansion areas.
- Construction of the Manitowoc River Interceptor to serve the Whitewater Acres area, and provide service for the Waldo Boulevard/I-43 interchange area, and the westward expansion of the River Heights area.
- Extension of sanitary sewers in the I-43 Industrial Park to serve the recently acquired Meyer and Fessler properties.
- Extension of sewer along West Custer Street to serve the So. Parkview Road area.
- Extension of sewer, west of the I-43 Industrial Park, to serve future residential development west of So. Alverno Road and south of USH 151.

9.C. STORM SEWERS AND STORMWATER MANAGEMENT

Storm sewers and stormwater management facilities are managed by the City Department of Public Works. Generally, storm sewers are installed at the time that streets are constructed or reconstructed.

The City budgeted a total of \$100,000 in 1997-1998, (of which 40 percent will be paid by a Coastal Waters Management Grant) for a Stormwater Management Plan to investigate long-term facility needs.

At the present time, stormwater facilities consist primarily of storm sewers to convey stormwater into natural drainageways. As part of the "Stormwater Management Plan", the City will be considering a system that will place greater emphasis on retaining and detaining stormwater on-site, thus reducing the need for downstream conveyances.

On-site basins should be required by ordinance at the time of development. Under this type of system, the developer typically provides the land and installs the stormwater basins as part of the initial development improvements. Many communities charge developers and subdividers a "fee-in-lieu-of-basins" or "impact fee", where it is neither practical nor effective to install basins on smaller sites, or where there is an areawide basin serving a larger developing neighborhood. This system provides a funding mechanism for financing stormwater infrastructure.

9.D. PUBLIC WATER UTILITY

MPU WATER AND MICROFILTRATION PLANT

Public water supply is provided to all of the developed portions of the City by the Manitowoc Public Utilities. The MPU pumping capacity is 22 million gallons per day (MGD). The average consumption is 9 MGD. Peak consumption is 14 MGD.

Manitowoc's primary source of water is surface water from Lake Michigan. This surface water is processed by a state-of-the-art microfiltration plant with a capacity of 11 MGD. Microfiltration provides an absolute barrier to cryptosporidium. MPU can augment peak water demands by using a groundwater source from a collector well with a capacity of 7 MGD.

As backup to the microfiltration plant, MPU has a conventional water treatment plant with a capacity of 10 MGD and an additional ground water collector well with a capacity of 4 MGD.

The City Council and the MPU Commission approved the design and construction of a new microfiltration plant in 1997. The new microfiltration plant will utilize the Memcor Microfiltration Technology. This system has been used since 1994 in larger municipal water treatment systems throughout the United States.

MPU's system will initially consist of twelve individual treatment units. Each unit is approximately 8 feet wide, 10 feet tall, and 20 feet long. The total membrane area available for filtration will be 4-acres. This will assure removal of giardia, cryptosporidium, and other suspended particulate matter from Lake Michigan water before it is pumped to the distribution system for consumption.

The 12 units will have a capacity of 11 MGD during winter months, and 14 MGD during warmer summer months when water temperature is 65 °F. The capacity can be easily increased in 1 MGD increments by connecting additional units to the piping systems.

10. PARK AND RECREATION FACILITIES PLAN

The City of Manitowoc has an excellent park system providing a wide variety of parks and recreation facilities on 672.02 acres of parkland. In addition to the City parks, public and private schools provide 215.31 acres of recreation facilities and open space.

10.A. INVENTORY OF EXISTING PARKS

COMMUNITY PARKS

The City's 5 largest community parks provide 373.03-acres of parkland.

The largest community park is the 101.75-acre Lincoln Park, located on N. 8th Street between Waldo Boulevard and Reed Avenue. Lincoln Park includes the City's zoo, as well as a wide variety of other facilities.

Other community parks include Silver Creek Park (78.61-acres), Henry Schuette Park (64.48-acres), Camp Vits (75.19-acres), and the recently acquired Muth property (50-acres) on Albert Drive at N. 8th Street. Three (3) community parks are developed and include a variety of facilities including the athletic fields, tennis courts, ice skating rinks, softball fields, soccer fields, picnic areas, cross-country ski trails, and nature trails. Camp Vits and the former Muth properties are undeveloped areas at this time, and are planned as passive naturalistic parks.

There are also 4 community playfields providing 92.07-acres of parkland. These include Citizen Park (27.83-acres), Municipal Athletic Field (8.83-acres), Red Arrow Park (26.65-acres) and Dewey Street Park (28.76-acres). These parks contain a variety of ballfields and areas for organized athletic activities. They also include restroom facilities, picnic areas, and areas for passive recreation. A portion of Municipal Athletic Field (9.52-acres) was recently deeded to the Manitowoc Public School District, and is no longer a part of the City's parkland inventory.

Each community park serves several neighborhoods. The community parks are generally located so that all developed residential neighborhoods are within one mile of a large community park. The developed part of the City is well-served by the existing parks. As residential development extends into areas not currently served by neighborhood and community parks, there will be a need for additional parks to serve these areas.

NEIGHBORHOOD PARKS AND PLAYGROUNDS

Eleven neighborhood parks and playgrounds provide 78.01-acres of parkland. These parks include such facilities as softball diamonds, playground equipment, restroom/shelters, and basketball courts.

The neighborhood parks are intended to serve a neighborhood within a safe walking distance of its residents. Generally, one-half mile is considered an acceptable travel distance to a neighborhood park, provided there are no major barriers to access. Most of the older residential neighborhoods are well-served by neighborhood parks. The primary residential area with a neighborhood park deficiency is the northwest side of the City.

Miniparks

Minipark	Maritime Drive Mini-Park	0.72	
Minipark	Mariners East Landing	0.46	
Minipark	Mariners West Landing	0.12	
Minipark	Dale Street	<u>1.65</u>	
Subtotal Mini Parks		2.95	.35%

Special Use Facilities

Special Use—Park & Conservancy	Manitou Park	28.50	
Special Use—Boating Facilities	Small Boat Harbor & Marina	62.50	
Special Use—Walkway	Manitowoc River Walkway	1.57	
Special Use—Wayside	South Lakefront Wayside	2.22	
Special Use—Senior Center	Senior Citizen Center	3.49	
Special Use—Wayside	Visitors Information Center	5.20	
Special Use—Walkway	Little Manitowoc River Walkway	6.05	
Special Use—Lakefront	North Lakefront		
Special Use—Lakefront	South Lakefront		
Special Use—Park	River Heights Park	<u>15.92</u>	
Subtotal Special Use Parks		125.96	20.78%

TOTAL CITY PARK AND RECREATION AREAS 672.02 100%

School Recreation Facilities

Public School	Andrew Jackson Elementary	8.18	
Public School	James Monroe Elementary	12.54	
Public School	C.G. Stangel Elementary	9.78	
Public School	Benjamin Franklin Elementary	11.49	
Public School	Jefferson Elementary	2.95	
Public School	Madison Elementary	4.78	
Public School	Washington Junior High	10.98	
Public School	Wilson Junior High	11.03	
Public School	Lincoln High	17.27	
Public School	Riverview Elementary	14.74	
Public School	University of Wisconsin	40.00	
Parochial School	First German Evangelical		
	Lutheran Elementary	1.00	
Parochial School	Immanuel Evangelical		
	Lutheran Elementary	1.71	
Parochial School	Manitowoc Lutheran High	19.04	
Parochial School	Roncalli High	35.42	
Parochial School	St. Francis Xavier	2.86	
Parochial School	St. Francis Cabrini	1.01	
Parochial School	St. Francis De Sales	1.01	

School Recreation Facilities

Municipal Athletic Field	<u>9.52</u>	
	215.31	

10.B. RECOMMENDED PARK SYSTEM IMPROVEMENTS

MAJOR IMPROVEMENTS TO EXISTING PARKS

The City's Outdoor Recreation and Open Space Plan 1997 to 2002 identifies the following improvements to existing parks:

Community Parks

Lincoln Park

- Paving of roadways and parking areas.
- Construction of restroom/concession/shelter facility.
- Modernization of field lighting.
- Sanitary sewer line extension.
- Development of zoo and associated amenities.
- Development of walkway system and pedestrian walkway bridge connection.
- Development of drive and parking area along Reed Ave.
- Landscaping, playground equipment, user amenities.

Silver Creek Park

- Paving of roadways, parking areas, and walks.
- Playground apparatus.
- Construction of restroom/shelter facility.
- Modernization of playfields.
- Security and drive/walk lighting.
- Development of walkway system.
- User amenities.
- Upgrading of buildings.
- Waterway erosion control.

Henry Schuette Park

- Paving of roadways, parking lots, and walkways.
- Site preparation and landscaping.
- User amenities.
- Extension of utilities.
- Restroom/shelter facilities.
- Lighting.
- Fishing and picnic areas.
- Playground equipment, landscaping.

Camp Vits

- Construction and paving of roadway access, drives and parking areas.
- Site preparation and landscaping.
- User amenities.
- Fishing areas.

Fleetwood Park

Landscaping.
Restroom facilities.
Construction multi-purpose fields.
Upgrade trial system with lighting.

Lakeview Park

This neighborhood park should be developed in conjunction with the small boat harbor facility.

Modernization of existing facilities.
Restroom/shelter facility.

Lincolnshire Park

This unimproved neighborhood park should be developed only after the opening of Magnolia Avenue, as resources become available.

Restroom facility.
Play apparatus.
Landscaping.

Rheume Park

Landscaping.
Play apparatus.
Facilities upgrading.

Washington Park

Fountain and flagpole.
Landscaping.
Modernization of playground apparatus and facilities.
Permanent seating amenities.
Addition of a concession area.
Lighting of attendant drive.

Westfield Park

Refinement of baseball/softball fields.
Landscaping.
Development of an additional off-street parking area.
Playground equipment.

Visitor Information Center

- User amenities.
- Picnic facilities.
- Open shelter facility.
- Landscaping.
- Playground equipment.

Little Manitowoc River Walkway

- Extension of walkway system with pedestrian bridge.
- User amenities.
- Picnic facilities.
- Landscaping.

North Lakefront

- Construction and paving of parking areas and walkways.
- Landscaping.
- Pedestrian amenities.
- Pedestrian walkway bridge.

South Lakefront

- Construction and paving of walkways and parking areas.
- Landscaping, site preparation.
- Open shelters, viewer deck, tourist amenities.
- User amenities.
- Lighting.

River Heights

- Construction and paving of roadway access, drives and parking areas.
- Construction of restroom/shelter facility.
- Development of nature trails.
- User amenities.
- Sanitary sewer, electrical and water extensions.

Mariners Landing East

- Sheet piling.
- Lighting.
- Pedestrian amenities, open shelter/benches.

10.C. MAJOR PARK ACQUISITION RECOMMENDATIONS

The following are new park acquisitions that the City should anticipate over the next 20 years.

New Community Park and Special Use Facility Acquisitions

1. The City should acquire a site in the northwest part of the City for a future community park suitable for athletic fields. Park size should range from 20-to-40 acres. This park may include a lighted ball diamond complex, restroom/shelter facility, playground equipment and ample parking on-site.
2. The City should acquire approximately 2-acres at Camp Vits for access road right-of-way.
3. The City should acquire approximately 45-acres of land from the Rahr property west of the existing Manitou Park. This land adjoins the Manitowoc River, and should be protected as conservancy land. The proposed Manitowoc River Trail should be routed through this acquisition area.

New Neighborhood Park Acquisition

1. The City should acquire a future 10- to 20-acre site for a neighborhood park in the northeast growth area north of the Little Manitowoc River. The park should be acquired through land dedication as the area is platted.
2. The City should acquire a future 10- to 20-acre site for a neighborhood park in the far northwest growth area of the City west of River Heights. The park should be acquired through land dedication as the area is platted.
3. The City should acquire a future 10- to 20-acre site for a new neighborhood park near the Manitowoc Rapids area to serve residential growth in that area. This acquisition is also needed to address an existing deficiency in this part of the City.
4. The City should acquire additional land at Westfield Park to provide off-street parking.
5. The City should acquire a future 10- to 20-acre site for a new neighborhood park west of So. Alverno Road to serve the area recently annexed into the City. This park should be acquired through park land dedication at the time the area is platted.

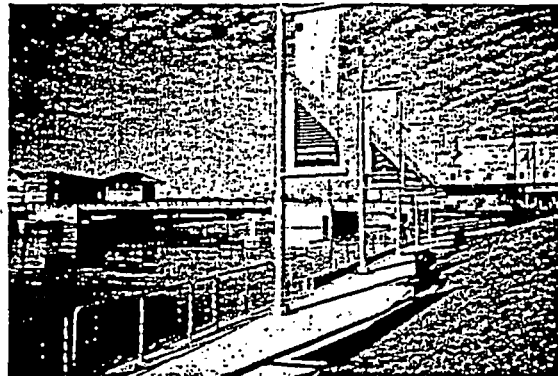
10.D. RECREATIONAL TRAIL AND PATHWAY SYSTEM RECOMMENDATIONS

The City of Manitowoc should develop a system of "spine trails" that would become the major regional trails. Ultimately these trails should extend beyond the City limits and connect to other County and State trails. The key elements of the City's "spine trail" system should include:

- South Lakeshore Trail (Silver Creek Park to 8th Street Bridge).
- North Lakeshore Trail (8th Street Bridge to Two Rivers).
- Manitowoc River Trail (Riverview Park to River Heights Park).
- Little Manitowoc River Trail (Lincoln Park to N. 18th Street).
- Upper Silver Creek Trail (former Fessler Property).

The trail routes will involve a combination of City-owned park and conservancy land, easements through private property, and sections on public street right-of-way.

Bicycle and pedestrian routes as described in the City's Bicycle Facilities Plan prepared by the Bay-Lake Regional Planning Commission in September, 1995, should be designed to connect to the "spine trail" system.



Manitowoc Riverwalk

North and South Lakeshore Trail

Where feasible, the proposed South Lakeshore Trail and North Lakeshore Trail should follow as close to the shoreline as possible. In some places, it may be feasible to integrate the trail or pathway into shoreline stabilization projects. Where it is not feasible to follow the shoreline due to private ownership or physical constraints, the trail may be a sidepath or sidewalk in the nearest public street right-of-way.

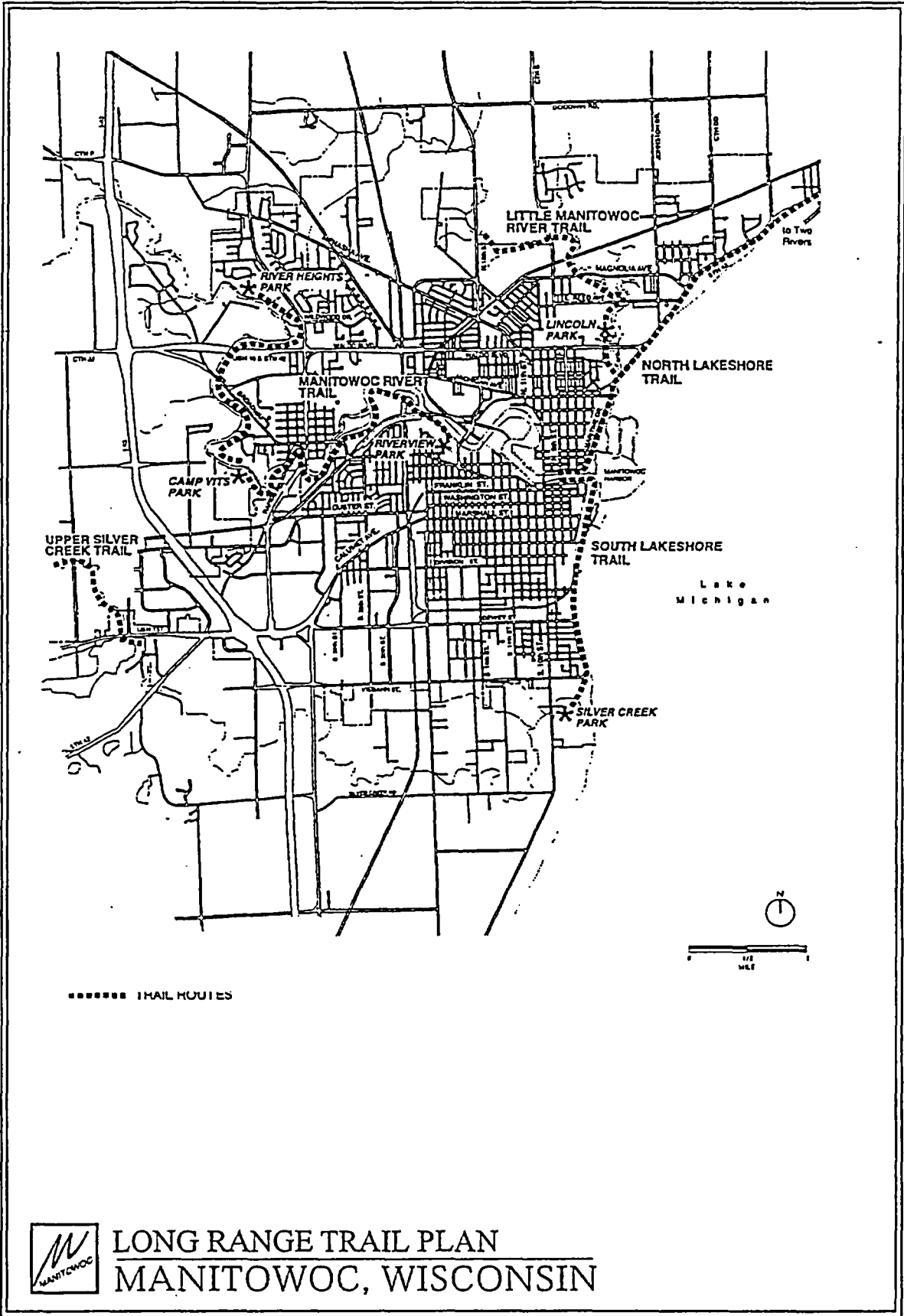
In the downtown area, the trail will be located on the existing riverwalk and lakefront trail. A "trailhead" for the lakeshore trails should be located near the Carferry docking area. Many carferry users are bicyclists, and promoting access to the bicycle trail should be an important element of tourism promotion for the area.

Where feasible, these trails should be designed as an 8- to 10-foot wide asphalt trail designed to American Association of State Highway and Transportation Officials (AASHTO) standards.

Manitowoc River Trail

The Manitowoc River Trail should be extended from Riverview Park near the 21st Street Bridge to Camp Vits. Future extensions could extend the trail upstream to River Heights Park. Much of the lower part of the proposed Manitowoc River Trail route between So. 21st Street and Broadway Street is already owned by the City as part of Riverview Park and Henry Schuette Park. The proposed expansion of Manitowoc Park will include an important riverfront segment for the trail.

As with the Lakeshore Trail, it may be necessary to have the trail route utilize sidewalks or sidepaths in public street right-of-way, where either ownership or physical constraints prevent the trail from following the river.



LONG RANGE TRAIL PLAN
MANITOWOC, WISCONSIN

10.E. FUNDING PARK IMPROVEMENTS

PARKLAND DEDICATION REQUIREMENTS

Where feasible, the City should acquire parkland through the land dedication process at the time that land is platted. The current Subdivision Regulations require subdividers to dedicate land or pay a fee-in-lieu-of-land, at the time of final plat approval, based on the following formula:

Zoning Classification	Percent Allocation of Total Gross Residential Acreage
R-1	5%
R-2, R-3	7%
R-4	9%
R-5, R-6, R-7	10%

Dedicated land should not be stormwater management areas, 100-year floodplain, wetlands, or other land that is not suitable for park improvements. The land dedication requirement should be sufficient to provide parkland in newly developing areas, provided the dedication requirements are enforced.

PARK IMPROVEMENT IMPACT FEES

The City should investigate adopting an Impact Fee Ordinance for park improvements for newly developing neighborhoods. An Impact Fee Ordinance needs to be accompanied by a "Public Facilities Needs Assessment" as required by Wisconsin Statutes ss. 66.55, to establish a fee structure that is based on actual expenditures for new facilities to serve expanding neighborhoods.

STATE AND FEDERAL GRANTS

The City should continue to aggressively pursue State and Federal grants for park and trail improvements. Most grant programs are matching grant programs requiring matching funds from the local government. The Stewardship Fund, which is WDNR's primary park and outdoor recreation funding assistance program, requires a 50 percent matching grant. This program can be used for both land acquisition and improvements.

Transportation-related trail and pathway projects are eligible for funding assistance from WisDOT through the ISTEA Program. Eligible pedestrian and bicycle transportation projects are cost shared on the basis of 80 percent funding from the State and Federal government, and 20 percent funding from local sources.