



LOCAL ASSISTANCE PROJECT NO. 109

CITY OF KIEL

Manitowoc & Calumet Counties, Wisconsin



20 Year Comprehensive Plan December 2002



Prepared by:
Bay-Lake Regional Planning Commission

City of Kiel, Wisconsin

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Cover Photo: Sites of Kiel, Wisconsin

City of Kiel - 20 Year Comprehensive Plan

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Martin W. Holden, Executive Director

The regional planning commission for Northeastern Wisconsin serving communities within the counties of:

FLORENCE • MARINETTE • OCONTO • BROWN • DOOR • KEWAUNEE • MANITOWOC • SHEBOYGAN

January 21, 2003

Mr. Robert Gebhart
City of Kiel Mayor
and Members of the City Council & City Plan Commission

Ladies and Gentlemen:

The Bay-Lake Regional Planning Commission is pleased to present this 20 year Comprehensive Plan, entitled *City of Kiel 20 Year Comprehensive Plan*, to both the City Council and the City Plan Commission. This Comprehensive Plan was prepared by the Bay-Lake Commission staff in accordance with contract #54119 and adopted by the City Council, under Wisconsin Statute 66.1001 (Smart Growth).

This Comprehensive Plan represents the city's commitment to the long-term planning needs of the community. The Comprehensive Plan also provides the city with a framework for preserving and improving its historic downtown area, protecting its existing neighborhood developments and its natural resources, while allowing for new development encouraging new design techniques.

In addition to setting forth a land use plan and supporting plan implementation strategies, this document presents pertinent information on many factors affecting land use development in the city of Kiel, including existing and probable future residential population levels, the natural resource base, existing land uses, intergovernmental cooperation and existing local plan implementation tools.

The delivery of this plan constitutes the completion of the Bay-Lake Regional Planning Commission's obligation regarding the city's request for assistance in developing the Comprehensive Plan. The Commission staff will remain available to assist the city in presenting the information contained in this document and in implementing, over time, the plan set forth herein.

Sincerely,

Martin W. Holden
Executive Director

RESOLUTION NO. 11-02

ADOPTION OF THE CITY OF KIEL
20 YEAR COMPREHENSIVE PLAN

WHEREAS, Wisconsin Statutes 62.23 authorizes the adoption of a Comprehensive Plan for the general purpose of guiding and accomplishing coordinated, adjusted, and harmonious development of the City;

AND WHEREAS, the Comprehensive Plan has been prepared by the Bay-Lake Regional Planning Commission which contains proposals, programs, descriptions, maps, and explanatory matter regarding natural resources, population, housing, economic development, transportation, land use, public facilities, outdoor recreation, and general plan design (land use plan) for the year 2020;

AND WHEREAS, the Comprehensive Plan has been prepared in accordance with the elements of a plan as defined in Wisconsin Statutes 66.1001 (Smart Growth);

AND WHEREAS, the Comprehensive Plan has been reviewed and recommended for approval by the City of Kiel Plan Commission;

NOW, THEREFORE BE IT RESOLVED that the City of Kiel Plan Commission hereby recommends to the Kiel City Council that a Comprehensive Plan entitled: *City of Kiel 20 Year Comprehensive Plan*, be adopted by the City Council pursuant to Wisconsin Statutes Sections 62.23 and 66.1001(4).

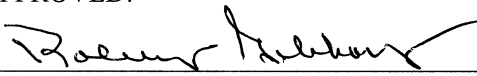
Dated this 11th day of NOVEMBER, 2002.

Resolution introduced and adoption moved by Stochting.

Motion for adoption seconded by Majkrzak.

Voting Aye: 5 Nay: 0

APPROVED:



Kiel Plan Commission Chair - Mayor

ATTEST:



Kiel Plan Commission Secretary

CITY OF KIEL
ORDINANCE NO. 440

An Ordinance to Adopt a Comprehensive Plan Pursuant to
Wisconsin Statutes Section 66.1001 (Smart Growth)

WHEREAS, on January 9, 2001 the City Council for the City of Kiel approved a contract with Bay-Lake Regional Planning Commission to prepare a Comprehensive Plan for the City of Kiel under the guidelines of Section 66.1001 Wisconsin Statutes; and,

WHEREAS, the project included a public participation plan in every stage of the process for preparation of a Comprehensive Plan for the City of Kiel, which addressed provisions for wide distribution of the proposed elements of the Comprehensive Plan, and provided an opportunity for written comments to be received from the public and for the City to respond to such comments; and,

WHEREAS, on November 11, 2002, the City of Kiel Plan Commission recommended to the City Council adoption of the Comprehensive Plan by resolution which passed by a majority vote of the entire membership of the City Plan Commission, which vote is recorded in the official minutes of the Plan Commission; and,

WHEREAS, the Kiel City Council held a public hearing on December 10, 2002, which was preceded by a Class 1 Notice provided as described in Wisconsin Statutes Chapter 985, that was published at least 30 days before the hearing was held, and the notice included all of the following information:

1. The date, time and location of the hearing;
2. A summary of the proposed Comprehensive Plan;
3. The name of the individual employed by the City of Kiel who may provide additional information regarding the proposed ordinance;
4. Information relating to where and when the proposed Comprehensive Plan could be inspected before the hearing, and how a copy of the Plan could be obtained; and,

WHEREAS, the Kiel City Council, having carefully reviewed the recommendation of the Kiel Plan Commission, having determined that all procedural requirements and notice have been satisfied, having given the matter due consideration, including consideration of the Plan components relating to issues and opportunities, agricultural, natural and cultural resources, housing, economic development, transportation, utilities and community facilities, intergovernmental cooperation, land use and implementation, and having determined that the Comprehensive Plan will serve the general purposes of guiding and accomplishing a coordinated, adjusted and harmonious development of the City of Kiel which will, in accordance with existing and future needs, best promote the public health, safety, morals, order, convenience, prosperity and the general welfare, as well as efficiency and economy in the process of development.

Page 2-Ordinance No. 440
Ordinance to Adopt a Comprehensive Plan

NOW, THEREFORE, the Kiel City Council of the City of Kiel, Manitowoc and Calumet Counties, Wisconsin, DOES ORDAIN AS FOLLOWS:

Section 1: The Comprehensive Plan recommended by the City of Kiel Plan Commission to the Kiel City Council, attached hereto as Exhibit A, is hereby adopted.

Section 2: The City Administrator is directed to file a copy of the attached Comprehensive Plan for the City of Kiel with all the following entities:

1. Every governmental body that is located in whole or in part within the boundaries of the City of Kiel;
2. The Clerk of every local governmental unit that is adjacent to the City of Kiel;
3. The Wisconsin Land Council;
4. The Bay-Lake Regional Planning Commission;
5. The Kiel Public Library.

Section 3: SEVERABILITY Several sections of this ordinance are declared to be severable. If any section or portion thereof shall be declared by a court of competent jurisdiction to be invalid, unlawful, or unenforceable, such decision shall only apply to the specific section or portion thereof directly specified in the decision, and shall not affect the validity of any other provisions, sections or portions thereof of the ordinance. The remainder of the ordinance shall remain in full force and effect. Any other ordinances whose terms are in conflict with the provisions of this ordinance are hereby repealed as to those terms in conflict.

Section 4: EFFECTIVE DATE. This ordinance will take effect immediately upon passage and publication as provided by law

Adopted this 10th day of DECEMBER 2002, by a majority vote of the members of the Kiel City Council.


Mayor

Attest: 
Administrator

EXECUTIVE SUMMARY

BACKGROUND

In January 2001, the Kiel City Council entered into a contract (#54119) with the Bay-Lake Regional Planning Commission (BLRPC) to prepare the *City of Kiel, 20 Year Comprehensive Plan*. This plan is an update of the 1988 plan for the city of Kiel. The plan was prepared to meet the requirements of Wisconsin's "Smart Growth" law (1999 Wisconsin Act 9) and adopted under the authority granted by Section 66.1001 of the Wisconsin Statutes, which states in part that, "Beginning on January 1, 2010, any program or action of a local governmental unit that affects land use shall be consistent with that local governmental unit's comprehensive plan." Overall, the plan is a statement of public policy concerning the future conservation and development of the city and its planning area over the next 20 years.

The initial step, and one that is essential throughout the comprehensive planning process, is public participation. This was achieved through the use of a nominal group process (issue identification), community-wide survey, visioning, approximately 18 planning meetings open to the public, two open houses and a 30-day plan review and comment period. Secondly, background data was collected from various sources including the US Census, Wisconsin Department of Natural Resources, Department of Transportation, etc. The data was analyzed to identify existing and potential problem areas in the city and its planning area, in addition to forecasting possible future occurrences. The community input coupled with the collection of physical, social, and regulatory data aided in the development of the city's future goals and objectives as well as with its preferred land use plan. The data and analysis along with the city's development strategies for each element of the plan can be found in the nine chapters that make-up the *City of Kiel, 20 Year Comprehensive Plan* (See page 1-2, Plan Contents, for a description of each chapter).

DESCRIPTION OF THE RECOMMENDED LAND USE PLAN

By utilizing population and housing projections, identifying environmental corridors (100-year floodplains as defined by the Federal Emergency Management Agency (FEMA), WDNR wetlands, steep slopes of 12 percent or greater and a water setback for buildings from all navigable waterways) and analyzing the adequacy of municipal services, etc., the city developed its preferred land use plan for Kiel and surrounding 1.5 mile planning area.

The city's plan for future residential developments calls for efficient and contiguous growth patterns. Existing residential developments will remain intact, while top priority lands for new residential developments consist of the TIF (Tax Incremental Finance) Districts along with existing vacant lots for infill development. These areas are encouraged to be developed prior to the city recommending new developments in the 1.5 mile extraterritorial area. New developments and areas for residential infill shall conform with existing neighborhood residential types by scale and density (single family, two-family, multi-family, etc.) to minimize negative impacts. In older portions of the city, an emphasis is placed on preserving the historic character of residential neighborhoods. Since 32 percent of the homes in the city are over 60 years old, an emphasis has been placed on the rehabilitation of these existing structures in need of repair. Any new residential developments that occur within the city or its planning area shall preserve environmentally sensitive areas to the greatest extent possible. The city will encourage new

development techniques such as conservation/cluster subdivisions and possibly enforce a no-build conservancy area along the Sheboygan River to protect these sensitive areas.

The commercial development strategy for Kiel calls for the Fremont Street commercial district to remain as the focal point of the city. Creating a more viable downtown (Fremont Street) is a major component of the city's commercial development. To accomplish this, the city plans to revitalize the downtown through refurbishing and preserving buildings and landmarks of historical and architectural significance. Building, landscaping, signage and lighting design standards will also be established to maintain the historic character and aesthetics of the area. The city will direct most neighborhood commercial establishments to the Fremont Street area while promoting it as a pedestrian friendly and safe environment. Other commercial developments are planned to occur along the main highway corridors (STH 32/57, STH 67), encouraging a mix of highway and neighborhood commercial developments. Design standards will also be established to enhance the major entryways into the city and to protect the city's identity.

The industrial aspect of the plan calls for future light industrial development while existing industries will remain. The new developments should fit the character of the town, provide diversity and be environmentally friendly. The industrial developments shall also establish design standards to enhance the major entryways into the city. Buffers are also encouraged around industrial developments to lessen conflicts with incompatible land uses.

Transportation strategies call for the continued maintenance and upgrading of street networks and pedestrian facilities. Continued efficiency and safe travel is, and will continue to be, the city's goal for the transportation network. The city of Kiel also has various strategies to enhance the services that are provided to its citizens and visitors. The city plans to continue maintenance and enhancement of governmental and religious facilities, promote the development of childcare and adult care services, promotion of the city's valued recreational sources, etc. Utilities will continue to be monitored, while new utility structures must complement the city, in order to maintain the aesthetics of the city and surrounding area.

The city also emphasizes preservation and protection of the many natural areas that exist within the Kiel city limits as well as its 1.5 mile planning area. By steering developments away from the environmental corridors, and utilizing alternative development techniques, these natural features in the Kiel area can continue to provide for excellent wildlife habitat and possible recreational facilities. The city will also explore ways to maintain the water levels and preserve the natural areas related to the Rockville Dam, which has an effect on Kiel's overall make-up. In addition the productive farmlands and woodlands in the city's planning area will be preserved to the greatest extent possible through conservation/cluster developments.

The city will continue to cooperate with adjacent governmental units and utilize the appropriate procedures and tools to implement the *City of Kiel 20 Year Comprehensive Plan*. The plan will be used in day-to-day decision making by the city and be continually reviewed should conflicts arise, and to ensure that the plan is consistent with the community's needs.

TABLE OF CONTENTS

Chapter 1 - Introduction	1-1
STATE PLANNING ENABLING LEGISLATION	1-1
CONTRACT WITH BLRPC	1-1
DESCRIPTION OF PLANNING AREA	1-2
COMMUNITY COMPREHENSIVE PLANNING PROCESS	1-2
PLAN CONTENTS	1-2
PUBLIC PARTICIPATION.....	1-3
Written Public Participation Procedures	1-3
Community Survey Results	1-3
VISION STATEMENT	1-3
GOALS, OBJECTIVES, POLICIES, & PROGRAMS	1-4
BACKGROUND INFORMATION SUMMARY	1-5
Existing Conditions.....	1-5
FORECASTS	1-6
Population	1-6
Housing	1-7
Employment.....	1-7
Chapter 2 - Agricultural, Natural and Cultural Resources	2-1
INTRODUCTION.....	2-1
SUMMARY AND IMPLICATIONS	2-1
NATURAL RESOURCES STRATEGY	2-2
CLIMATE	2-6
GEOLOGY	2-6
Bedrock Geology	2-6
SOIL LIMITATIONS	2-6
General Soils Description	2-7
Prime Agricultural Lands.....	2-7
Basements	2-7
TOPOGRAPHY.....	2-8
WATER RESOURCES	2-8
Watersheds.....	2-8
Groundwater	2-8
Lakes	2-9
Rivers and Streams	2-9
Floodplains.....	2-9
Wetlands	2-10
WOODLANDS.....	2-11
AIR QUALITY ISSUES.....	2-11
WILDLIFE HABITAT.....	2-11
THREATENED AND ENDANGERED SPECIES.....	2-11
PARKS AND OPEN SPACES.....	2-12
SCIENTIFIC AND NATURAL AREAS	2-12

OTHER LOCAL KEY NATURAL FEATURES.....	2-12
HISTORIC/CULTURAL AND ARCHEOLOGICAL RESOURCES	2-12
METALLIC AND NON METALLIC MINING RESOURCES	2-13
ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS	2-13
COMMUNITY DESIGN	2-14
Chapter 3 - Housing and Population	3-1
INTRODUCTION.....	3-1
SUMMARY AND IMPLICATIONS	3-1
HOUSING STRATEGY.....	3-2
POPULATION CHARACTERISTICS	3-4
Historical Population Levels.....	3-4
Population Trends	3-5
School Age, Working Age and Retirement Age Groups	3-11
Median Age.....	3-11
HOUSING INVENTORY	3-12
Total Housing Unit Levels by Decade	3-12
Historic and Projected Household Size.....	3-13
Projected Occupied Housing Units & Total Housing Units	3-14
Housing Projection Selection.....	3-15
Housing Types - Units in Structure.....	3-15
Housing Occupancy and Tenure	3-15
Age of Housing	3-16
Condition of Housing Stock.....	3-16
Household Relationship	3-16
Housing Values	3-17
Housing Costs - Rents and Mortgage	3-17
Subsidized and Special Needs Housing.....	3-18
Housing Development Environment.....	3-18
ANALYSIS AND DEVELOPMENT OF COMMUNITY POLICIES AND PROGRAMS.....	3-18
Housing Programs.....	3-18
Housing Plan.....	3-21
Chapter 4 - Economic Development.....	4-1
INTRODUCTION.....	4-1
SUMMARY AND IMPLICATIONS	4-1
ECONOMIC DEVELOPMENT STRATEGY	4-2
ECONOMIC PROGRAMS	4-4
LABOR FORCE CHARACTERISTICS	4-6
Place of Work	4-7
Occupation	4-8
Industry	4-8
Unemployment Rate	4-9
Employment Forecast	4-11
Median Household Income	4-12
Personal Income.....	4-13

ECONOMIC BASE ANALYSIS	4-13
Economic Sectors and Divisions	4-13
Location Quotient Analysis.....	4-14
Threshold Analysis	4-15
STRENGTHS AND WEAKNESSES ANALYSIS	4-16
Physical Capabilities	4-16
Programmatic Capabilities	4-18
Financial Capabilities.....	4-18
Quality of Life.....	4-19
SITES FOR BUSINESS AND INDUSTRIAL DEVELOPMENT.....	4-19
Existing Site Inventory and Analysis	4-19
Evaluation of Environmentally Contaminated Sites For:	4-20
Designation of Business and Industrial Development	4-20
Acreage Projections	4-21
COMMUNITY FINANCES	4-21
Chapter 5 - Transportation	5-1
INTRODUCTION.....	5-1
SUMMARY AND IMPLICATIONS	5-1
TRANSPORTATION STRATEGY	5-2
FUNDING AND TECHNICAL ASSISTANCE PROGRAMS	5-4
Wisconsin Department of Transportation	5-5
Federal Highway Administration.....	5-8
Comparison of Transportation Strategy to State and Regional Transportation Plans	5-9
INVENTORY OF TRANSPORTATION FACILITIES.....	5-9
Air Service	5-10
Trucking	5-11
Traffic Counts.....	5-14
Traffic Flow Capacity	5-15
Traffic Crashes.....	5-15
Access Controls	5-16
INVENTORY AND ANALYSIS OF APPLICABLE TRANSPORTATION PLANS.....	5-16
State Highway Plan.....	5-16
State Airport Plan.....	5-17
State Railroad Plan.....	5-17
State and Regional Bicycle Plans.....	5-17
State Pedestrian Plan.....	5-19
TRANSPORTATION RECOMMENDATIONS	5-20
Initiate A Pavement Management Program	5-20
Employ Adequate Design Standards.....	5-20
Apply Traffic Considerations.....	5-20
Assess Special Transportation Needs	5-21
Access and Corridor Study for STH 32/57 and STH 67	5-21
Bicycle Facility Plan	5-21
Chapter 6 - Utilities and Community Facilities	6-1

INTRODUCTION.....	6-1
SUMMARY AND IMPLICATIONS	6-1
UTILITY AND COMMUNITY FACILITY STRATEGY.....	6-2
BOARDS AND COMMITTEES INVENTORY.....	6-4
UTILITIES INVENTORY ANALYSIS-LOCATION, USE AND CAPACITY.....	6-4
Electric Service	6-4
Natural Gas	6-4
Public Water System.....	6-4
Sanitary Sewer Service	6-5
Storm Sewer System	6-5
Sidewalks	6-5
Solid Waste Disposal and Recycling Facilities.....	6-5
Telecommunications Facilities	6-5
COMMUNITY FACILITIES INVENTORY AND ASSESSMENT LOCATION, USE AND CAPACITY.....	6-6
Municipal Building	6-6
Road and Other Maintenance.....	6-6
Postal Services	6-6
Cemeteries.....	6-6
Police Station	6-7
Fire Station/Protection	6-7
Emergency Services	6-8
Library.....	6-8
Educational Facilities.....	6-8
Child Care Facilities	6-9
Health Care Facilities.....	6-9
Senior Care Facilities	6-9
Other Facilities.....	6-9
OUTDOOR RECREATION INVENTORY.....	6-10
Community Sites.....	6-10
National, State and County Facilities.....	6-12
Other Recreation Facilities.....	6-12
Chapter 7 - Intergovernmental Cooperation	7-1
INTRODUCTION.....	7-1
SUMMARY AND IMPLICATIONS	7-1
INTERGOVERNMENTAL COOPERATION STRATEGY.....	7-1
EXISTING ACTIVITIES AND PLANS	7-2
Adjacent Governmental Units.....	7-2
School Districts.....	7-2
County.....	7-2
Region	7-3
State.....	7-3
INVENTORY OF PLANS AND AGREEMENTS UNDER S. 66.0307, S. 66.0301 OR S. 66.0309.....	7-3
Cooperative Boundary Plan	7-3

Annexation	7-4
Extra-Territorial Subdivision Regulation	7-4
Extra-Territorial Zoning.....	7-4
Law Enforcement; Mutual Assistance	7-4
Intergovernmental Cooperation	7-4
County and Municipal Aid.....	7-4
OTHER	7-5
INVENTORY OF EXISTING OR POTENTIAL CONFLICTS	7-5
Chapter 8 - Land Use	8-1
INTRODUCTION.....	8-1
LAND USE STRATEGY	8-1
Inventory of Existing Land Use Controls	8-5
Kiel Subdivision Ordinance.....	8-7
Official Map.....	8-7
Erosion Control Plan.....	8-8
City of Kiel Floodplain Ordinance.....	8-8
Kiel Shoreland-Wetland Ordinance	8-8
Shorelands.....	8-8
County Farmland Preservation Plans	8-9
Sewer Service Area Plan.....	8-9
CURRENT LAND USE INVENTORY	8-9
Planning Area.....	8-9
Residential Land	8-11
Commercial Land.....	8-11
Industrial Land	8-11
Transportation	8-11
Communication/Utilities.....	8-11
Institutional/Governmental	8-11
Parks and Recreational.....	8-12
Agricultural Structures.....	8-12
Undeveloped Land	8-12
LAND SUPPLY	8-12
Amount	8-12
Price	8-12
Demand	8-13
Redevelopment Opportunities	8-13
LAND USE ISSUES AND CONFLICTS	8-13
ANTICIPATED LAND USE TRENDS	8-14
DEVELOPMENT CONSIDERATIONS.....	8-14
Environmental and Public Utility Considerations	8-15
Planning Criteria	8-15
DESIGN YEAR LAND USE PROJECTIONS	8-16
Five Year Incremental Land Use Projections	8-16
DEVELOPMENT STANDARDS	8-18
General Plan Design Classifications	8-18

RECOMMENDED DEVELOPMENT STRATEGY	8-19
Recommended Development Strategies - City Limits	8-20
RECOMMENDED DEVELOPMENT STRATEGIES - EXTRATERRITORIAL AREA ..	8-29
URBAN DESIGN	8-37
IDENTIFIED SMART GROWTH AREAS	8-37
SUMMARY	8-38
Chapter 9 - Implementation	9-1
INTRODUCTION.....	9-1
Role of the Plan and City Plan Commission.....	9-1
Role of the Elected Officials	9-1
LAND USE PLANNING CONTROLS RECOMMENDATIONS	9-2
Zoning	9-2
Official Maps	9-2
Sign Regulations	9-3
Erosion and Storm Water Control Ordinances	9-3
Historic Preservation Ordinances.....	9-3
Design Review Ordinances	9-4
Economic Development Committee	9-4
Building/Housing Codes	9-4
Floodplain Ordinance.....	9-4
Sanitary Codes	9-5
Subdivision Ordinances	9-5
COMPREHENSIVE PLAN INTERNAL CONSISTENCY	9-5
IMPLEMENTATION MILESTONES	9-6
PROCESS FOR UPDATING PLAN.....	9-6
ACTION PLAN	9-6

LIST OF APPENDICES

APPENDIX A: 2001 SURVEY AND NOMINAL GROUP RESULTS.....	A-1
APPENDIX B: DETAILED LAND USE TABULATION	B-1
APPENDIX C: ECONOMIC WORKSHOP AND ECONOMIC STRATEGIES	C-1
APPENDIX D: FACILITY DEVELOPMENT MANUAL-STREET DESIGN CRITERIA	D-1
APPENDIX E: RESPONSE TO PUBLIC COMMENTS	E-1

LIST OF TABLES

Table 3.1: Historical Population Levels, 1900-2000, City of Kiel & Selected Areas	3-5
Table 3.2: Population Trends, 1970-2015, City of Kiel & Selected Areas.....	3-6
Table 3.3: Estimated Seasonal Population, 2000, City of Kiel & Selected Areas.....	3-6
Table 3.4: Male and Female Distribution by Age and Sex, 1980-2000, City of Kiel.....	3-9
Table 3.5: Population by Age Groups and Sex, 2000, City of Kiel & Selected Areas	3-11
Table 3.6: Median Age, 1970-2000, City of Kiel & Selected Areas	3-12
Table 3.7: Total Housing Units, 1970-2000, City of Kiel & Selected Areas	3-12
Table 3.8: Persons per Household Projections, 1990-2020, City of Kiel & Selected Areas	3-13
Table 3.9: Household Projections by Household Type, 1990-2015, Manitowoc & Calumet Counties	3-13
Table 3.10: Units in Structure, 2000, City of Kiel & Selected Areas*	3-15
Table 3.11: Housing Occupancy and Tenure, 2000, City of Kiel & Selected Areas	3-16
Table 3.12: Housing Units by Year Structure Built, 2000, City of Kiel & Selected Areas*	3-16
Table 3.13: Household Type and Relationship, 2000, City of Kiel & Selected Areas	3-17
Table 3.14: Values of Specified Owner-Occupied Housing Units, 2000, City of Kiel & Selected Areas	3-17
Table 4.1: Place of Work, 1990 City of Kiel & Selected Areas	4-7
Table 4.2: Commuting Patterns, 1994, Manitowoc County	4-7
Table 4.3: Commuting Patterns, 1994, Calumet County	4-7
Table 4.4: Employed Persons by Occupation, 2000, City of Kiel and Manitowoc & Calumet Co.	4-8
Table 4.5: Employed Persons by Industry Group, 2000, City of Kiel and Manitowoc & Calumet Co.....	4-8
Table 4.6: City of Kiel's Largest Employers in 2002.....	4-9
Table 4.7: Average Civilian Labor Force Estimates, 1990-2001, Manitowoc County.....	4-10
Table 4.8: Average Civilian Labor Force Estimates, 1990-2001, Calumet County	4-11
Table 4.9: Median Household Income, 1989 and 1999, City of Kiel & Selected Areas	4-13
Table 4.10: Municipal Per Return Income, 1997-2000, City of Kiel & Selected Areas.....	4-13
Table 4.11: Employment by Industry Group, 1988-1998, Manitowoc County and United States, Location Quotient Analysis	4-14
Table 4.12: Employment by Industry Group, 1988-1998, Calumet County and United States, Location Quotient Analysis	4-15
Table 4.13: Comparative Tax Appropriations, 1995-2000, City of Kiel (Manitowoc County)	4-21
Table 4.14: Comparative Tax Appropriations, 1995-2000, City of Kiel (Calumet County)	4-21
Table 4.15: Public Indebtedness, 1998-2000, City of Kiel	4-23
Table 5.1: Functional Classification Criteria for Urban Areas	5-12
Table 5.2: Street Function, Total Mileage and Percent of Total Street Mileage, City of Kiel, 2001	5-13
Table 5.3: Average Annual Daily Traffic, 1993, 1996, and 1999; Number Difference Between 1996 and 1999; Percent Difference Between 1996 and 1999; City of Kiel	5-14
Table 5.4: Average Annual Daily Traffic, cont.	5-15

Table 5.5: Uninterrupted Traffic Flow Capacities Under Ideal Conditions.....	5-15
Table 5.6: Vehicle Crashes, City of Kiel , 1999 and 2001.....	5-16
Table 5.7: Intersection/Non-Intersection Crashes by Highway Jurisdiction, 1999 and 2001	5-16
Table 8.1: City of Kiel Land Use Calculations	8-10
Table 8.2: 20 Year General Plan Design Acreage Calculations, City of Kiel.	8-39

LIST OF FIGURES

Figure 3.1: Historic Population Levels, 1900-2000, City of Kiel.....	3-5
Figure 3.2: Population Trends and Projections, 1970-2020, City of Kiel.....	3-8
Figure 3.3: Population Pyramids, 1980-2000, City of Kiel	3-10
Figure 3.4: Historic Housing Unit Levels, 1970-2000, City of Kiel.....	3-13
Figure 3.5: Occupied Housing Unit Trends & Projections, 1970-2020, City of Kiel.....	3-14
Figure 4.1: Percent Employment by Industry Group, 2000, City of Kiel	4-9
Figure 4.2: Unemployment Rate, 1990-2001, Manitowoc County.....	4-10
Figure 4.3: Unemployment Rate, 1990-2001, Calumet County	4-11

LIST OF MAPS

Map 2.1: Location Map.....	2-17
Map 2.2: Planning Area	2-18
Map 2.3: Pleistocene Geology	2-19
Map 2.4: General Soil Associations.....	2-20
Map 2.5: Prime Farmland	2-21
Map 2.6: Soil Limitations for Dwellings with Basements.....	2-22
Map 2.7: Steep Slope	2-23
Map 2.8: Watersheds	2-24
Map 2.9: Surface Water Features.....	2-25
Map 2.10: Floodplains	2-26
Map 2.11: Wetlands	2-27
Map 2.12: Woodlands.....	2-28
Map 2.13: Natural Areas.....	2-29
Map 2.14: Environmental Corridors.....	2-30
Map 5.1: Local Street and Road System.....	5-22
Map 5.2: Functional Classifications	5-23
Map 5.3: Average Annual Daily Traffic	5-24
Map 6.1: Public Water System	6-13
Map 6.2: Sanitary Sewer System	6-14
Map 6.3: Storm Sewer System.....	6-15
Map 6.4: Community Facilities	6-16
Map 6.5: Recreation Sites	6-17
Map 8.1: Shoreland Zone.....	8-40
Map 8.2: Zoning.....	8-41
Map 8.3: 2001 Land Use, City of Kiel.....	8-42
Map 8.4: 2001 Land Use, City of Kiel Planning Area.....	8-43
Map 8.5: General Plan Design, City of Kiel	8-44

Chapter 1 - INTRODUCTION

STATE PLANNING ENABLING LEGISLATION

This comprehensive plan is an update of the 1988 plan for the city of Kiel, Manitowoc and Calumet Counties, Wisconsin. The plan was prepared to meet the requirements of Wisconsin's "Smart Growth" law (1999 Wisconsin Act 9) and adopted under the authority granted by Section 66.1001 of the Wisconsin Statutes, which states in part that, "Beginning on January 1, 2010, any program or action of a local governmental unit that affects land use shall be consistent with that local governmental unit's comprehensive plan."

The comprehensive plan is a policy document that provides a specific guide as to where future conservation, growth and development should occur within the community. The plan should be consulted when the city makes decisions concerning land use and other issues impacting the development of the city including:

- Municipal incorporation procedures under s. 66.0215, 66.0201 or 66.0203.
- Annexation procedures under s. 66.0217, 66.0219 or 66.0223.
- Cooperative boundary agreements entered into under s. 66.0307.
- Consolidation of territory under s. 66.0229.
- Detachment of territory under s. 66.0227.
- Municipal boundary agreements fixed by judgment under s. 66.0225.
- Official mapping established or amended under s. 62.23 (6).
- Local subdivision regulation under s. 236.45 or 236.46.
- Extraterritorial plat review within a city's or village's extraterritorial plat approval jurisdiction, as defined in s.236.02(5).
- County zoning ordinances enacted or amended under s. 59.69.
- City or village zoning ordinances enacted or amended under s. 62.23 (7).
- Town zoning ordinances enacted or amended under s. 60.61 or 60.62.
- An improvement of a transportation facility that is undertaken under s. 84.185.
- Agricultural preservation plans prepared or revised under subch. IV of chapter 91.
- Impact fee ordinances that are enacted or amended under s. 66.0617.
- Land acquisition for recreational lands and parks under s. 23.09 (20).
- Zoning of shorelands or wetlands in shorelands under s. 59.692, 61.351 or 62.231.
- Construction site erosion control and storm water management zoning under s. 59.693, 61.354 or 62.234.
- Any other ordinance, plan or regulation of a local governmental unit that relates to land use.

CONTRACT WITH BLRPC

The Kiel City Council entered into a contract (#54119) with the Bay-Lake Regional Planning Commission (BLRPC) to prepare a comprehensive plan in accordance with Wisconsin's Smart Growth law in January, 2001. A 24-month time period was established for the completion of the plan, which began February, 2001 and ended in January, 2003. The plan was prepared and approved by the City Plan Commission, City Council, and citizens of the city of Kiel.

DESCRIPTION OF PLANNING AREA

The city of Kiel, comprised of 1,520 acres (2.4 square miles), is mostly located in the southwest corner of Manitowoc County and a portion also lies within southeast Calumet County. Kiel is surrounded by the towns of Schleswig (Manitowoc County) and New Holstein (Calumet County). Nearby communities include, Fond du Lac, 30 miles to the southwest; Plymouth, 12 miles south; Sheboygan, 20 miles southeast, New Holstein, four miles northwest, Chilton, 10 miles northwest and Manitowoc, 23 miles northeast

COMMUNITY COMPREHENSIVE PLANNING PROCESS

The planning process was completed in four stages. *Initially*, the City Plan Commission, with help from the Bay-Lake Regional Planning Commission, mailed a community wide survey in order to identify issues and concerns relative to land use and future development within the city.

The *second stage*, inventory and interpretation, began with the collection of data on existing conditions within the community to include information based upon the 2000 U.S. Census. The data was then analyzed to identify existing and potential problem areas. Using results from the community wide survey, as well as background data compiled during the inventory stage, the City Plan Commission developed an overall vision statement as well as goals, objectives, policies and programs for governing each of the nine elements required under the comprehensive plan per “Smart Growth”.

The *third stage*, was the development of the General Plan Design, under the plan’s Land Use Element. The first two stages were combined to create a recommended land use plan to guide future conservation, growth and development within the city over the next twenty years. The preliminary General Plan Design was presented to the citizens of the community as well as nearby municipalities and government organizations for their review and comment. The comments were considered and included in the final General Plan Design map and text.

The *fourth stage*, established the tools necessary for implementation of the plan. Recommendations for regulatory techniques including zoning, and an action plan were established to ensure that the intent of the plan will be achieved.

PLAN CONTENTS

This comprehensive plan contains nine chapters that correspond to the nine elements required by Section 66.1001 of the Wisconsin Statutes: **Chapter 1:** Issues and Opportunities Element, contains a summary of demographic information on the community, a vision statement, and overall goals, objectives, policies, and programs of the plan; **Chapter 2:** Agricultural, Natural and Cultural Resources Element, provides goals, objectives, policies, and programs and description of the physical setting and cultural resources of the planning area; **Chapter 3:** Housing and Population Element, presents goals, objectives, policies, and programs as well as information on the demographics of the community and on future population, housing and economic growth; **Chapter 4:** Economic Development Element, contains goals, objectives, policies, and programs and a general development strategy regarding future and existing economic conditions within the community, including an inventory of the labor force and an analysis of the community’s economic base; **Chapter 5:** Transportation Element, presents goals, objectives, policies, and programs and an inventory of the existing transportation system and an overview of transportation needs; **Chapter 6:** Utility and Community Facilities Element,

contains goals, objectives, policies, and programs and an inventory of the community's facilities, including schools, recreational opportunities and city utilities; **Chapter 7:** Intergovernmental Cooperation Element, contains goals, objectives, policies, and programs for joint planning and decision making with other jurisdictions, including school districts and adjacent local governmental units; **Chapter 8:** Land Use Element, contains goals, objectives, policies, and programs and a land use inventory for the community, a projection of future land use demands, and the General Plan Design for the city; **Chapter 9:** Implementation Element, contains a strategy and short-term action plan to assist implementation efforts.

PUBLIC PARTICIPATION

Written Public Participation Procedures

A major element of the comprehensive planning process is public participation. In accordance with Wisconsin State Statute 66.1001(4), which defines "Procedures For Adopting Comprehensive Plans", the city adopted written procedures that will be followed in order to involve the public in the comprehensive planning process to the greatest extent practicable. The city conducted a community survey at the outset of the planning process. The city also conducted all of its meetings according to the state's Open Meetings Law, as well as held two "Open Houses" to present background information and plan recommendations to the public.

Community Survey Results

In all, 1,467 surveys were mailed with 641 surveys being filled out and returned for a total response rate of 44 percent. According to the Survey Research Handbook, authored by Alreck and Settle, response rates for mail surveys normally average 20 percent or less and response rates greater than 30 percent are rare. Thus, the city of Kiel's Community Survey can be considered successful in terms of participation.

Results to the survey questions are located within Appendix A of this plan.

VISION STATEMENT

The city of Kiel is a progressive community that promotes diverse development and strategic growth. Residents enjoy the city's scenic appeal in addition to the existence of friendly neighborhoods, abundance of employment opportunities, variety of recreational sites, and the inviting downtown area.

Friendly people and a "small town" environment continue to define the city's character. Residents take pride in their community and work together for the betterment of the city. In addition, the city continues to preserve its architectural and cultural history through restoration and maintaining historic styles for new structures.

The picturesque Sheboygan River meanders through the city allowing many residents and visitors to enjoy the aesthetics and various recreational opportunities that are associated with river. Natural resources are very valuable and have been protected to provide wildlife habitat and green space ensuring that future generations will be able to enjoy their beauty.

Through the use of the Comprehensive Plan, public participation and innovative ordinances, the city's past decisions have led to orderly growth and preservation of resources. As population growth continues along with increased economic development, Kiel continues to be the "Little City that Does Big Things" and remains a model for Smart Growth.

GOALS, OBJECTIVES, POLICIES, & PROGRAMS

The following statements describe the city's intent regarding the overall growth and development over the next 20 years.

Goals, objectives, policies and programs each have a distinct and different purpose within the planning process:

- **Goals** describe desired situations toward which planning efforts should be directed. They are broad and long range. They represent an end to be sought, although they may never actually be fully attained.
- **Objectives** are measurable ends toward reaching a defined goal.
- **Policies** are a rule or course of action used to ensure plan implementation.
- **Programs** are a coordinated series of policies and actions to carry out the plan.

Goal:

The goal of the city will be consistency with that described in s.66.1001 of the Wisconsin State Statutes in order to best protect the interests of all of its residents as well as to develop the city in an orderly, cost efficient method.

Objectives:

1. Adopt and maintain a comprehensive plan under s 66.1001, that reflects the needs of all current and future citizens of the city of Kiel for 20 years.
2. The comprehensive plan will remain current in order to provide for the greatest possible benefits regarding the future development of residential, commercial, industrial, and parkland expansion and development.

Policies:

1. Maintain a Plan Commission that will regularly refer to the plan and will use the plan as one of the primary guides for recommendations to the City Council regarding land uses.
2. Review existing city ordinances as they relate to the implementation of this plan.
3. Update the city's zoning ordinances to be consistent with the land use map and text.
4. Utilize the Official Map ordinance to designate future road right-of-ways and parklands/trailways the city intends to develop.
5. This plan should be consulted by the Plan Commission, City Council and other units of government before making any decision regarding land use and land use policies.
6. Present the adopted plan to neighboring municipalities and Manitowoc and Calumet counties as described within the Implementation element of the plan.
7. Encourage cooperation and communication between the city, neighboring municipalities, and county governments in implementing this plan.

Programs:

1. Hold Plan Commission meetings/working sessions to periodically review the adopted comprehensive plan and make amendments to accommodate changing conditions following the guidance of s 66.1001.
2. Hold community planning related education efforts/meetings with local schools, the media, and private organizations to publicize ongoing planning projects and plan implementation projects listed/identified within the comprehensive plan to gain new insight, provide for new ideas, promote support, and to educate the public.

BACKGROUND INFORMATION SUMMARY

The following summary includes information regarding population and employment forecasts, as well as demographic trends, age distribution, education levels, income levels and employment characteristics that exist within the city.

Existing Conditions**Demographic Trends**

The city of Kiel had continually experienced population increases since 1900 with the only decline occurring in 1990. After 1990, the population then increased in 2000 to a total of 3,450 persons which is the greatest population figure the city has experienced. The population is projected to increase slightly throughout the remainder of the 20 year planning period. The city has experienced (over the past three decades 1980, 1990, and 2000) slight fluctuations in its age structure with the majority of the population being between the ages of 25 and 44 the last two decades. The city has also contained slightly more females than males since 1970.

Age Distribution

From 1980 to 2000 there was some slight fluctuation in the age distribution of the city, however based on percentage the majority of the age groups remained relatively similar. In 2000, the population under 19 continued declined slightly since 1980, whereas the elderly population slightly increased. The largest age percentages were within the 34 to 54 age groups. With declining numbers of 19 year olds and younger, the city and surrounding areas could experience a shortage of their workforce. In addition, an increasing elderly population may lead the city to spend more on services to accommodate the aging population over the next twenty years.

Education Levels

The level of education that is attained by the population of a community will often be an indicator of the type of jobs in the area and the standard of living. In 2000, the city had 42 percent of its population (aged 25 and over) achieving a high school diploma or equivalent, which was greater than the state at 35 percent. However, the city had ten percent of residents aged 25 and older obtaining a bachelors degree compared to 15 percent for the state.

Income Levels

The median household income for the city of Kiel in 1989 was broken down by county portions: \$30,245 for the Manitowoc portion of the city and \$29,922 for the Calumet portion of the city. In the reported 2000 U.S. Census, the median income increased to \$44,239 for the city as a whole, resulting in an increase of 46 to 48 percent from 1989.

Employment Characteristics

For the period 1990 to 2000, the civilian labor force increased (by 7 % in Manitowoc, 18% in Calumet), the number of unemployed decreased (by 23% in Manitowoc, 55% in Calumet), and the number of employed increased (by 8% in Manitowoc, 24% in Calumet). The unemployment rate experienced a high of (5.8% in Manitowoc in 1992 and 6.8% in Calumet in 1991) and a low of (3.5% in Manitowoc in 1998 and 2000 and 2.3% in Calumet in 1999).

In 2000, the majority of people in the workforce in the city of Kiel were employed by the manufacturing industry, 47 percent. The education, health and social services industry was the second highest employment division for Kiel at 13.5 percent, followed by the retail trade industry with 11 percent of total employment in 2000.

FORECASTS

Expanded text, tables, and figures are provided in later chapters to further explain and describe the forecasting methods used below.

Population

In 1993, the Wisconsin Department of Administration (WDOA) Demographic Services Center prepared population projections to the year 2015. The WDOA indicated that the city of Kiel was projected to have a population of 3,281 persons by 2015. However, according to the 2000 census the city had already surpassed this 2015 projection by 169 persons. Neighboring communities have also exceeded their 2015 population projections by 128 or more persons. Due to the inaccuracy of the WDOA projections and the fact that they do not project to this plan's planning horizon of 20 years, an alternative population projection was created by Bay-Lake Regional Planning Commission.

***Note:** The limitations of population projections should be recognized. Population projections are not predictions, rather they extend past growth trends into the future and their reliability depends on the continuation of these past growth trends. Smaller communities are also subject to greater errors because even minor changes in the community can result in significant changes in population projection estimates.*

One of the two methods used to project a future population was a ratio methodology - termed "share-of-the-county", to distribute county projections to the city level. This method established a "Low Growth" projection for the city. According to these Commission projections, the projected year 2020 population would be 3,613 persons. Therefore, it is projected that the city of Kiel's 2000 population will increase by 4.7 percent by the year 2020.

A "High Growth" projection was developed for the city by using the U.S. Census figures from 1970 through 2000 and creating a growth trend series to the year 2020. This method identified a projected year 2005 population of 3,469 persons, a projected year 2010 population of 3,487 persons, an estimated 2015 population of 3,580, and a projected year 2020 population of 3,673. According to this "High Growth" projection, the city of Kiel's 2000 population will increase by 6.5 percent by the year 2020.

Housing

The future housing demand is best reflective of a range from between 242 new occupied housing units and 452 new occupied housing units. The low end of 242 will best accommodate the projected 20 year population and the projected persons per household. The high of 452 occupied housing units overall reflects the growth trend projected over the last 30 years. However, the linear trend, which also projects the trends of the past 30 years, indicates an increase of 302 new occupied housing units. This linear trend projection of 302 new occupied units will be used for planning purposes within this plan.

Employment

In 1996, the Wisconsin Department of Workforce Development created projections for industries, occupations, and the labor force called the *Northeast Wisconsin Projections: 1992-2005*. These projections are for all of Northeast Wisconsin, including Manitowoc and Calumet Counties. The study concluded that overall employment is expected to increase by more than 20 percent in the region. Unemployment rates will remain low through 2005, and labor shortages may be common in some occupations.

In 2005, the manufacturing industry is projected to continue to be the industry with the largest share of employment. However, although manufacturing jobs will continue to increase, the rate of increase will slow down. Occupations in manufacturing are expected to move away from general labor positions to more semi-skilled and skilled operator and technician jobs. This is due primarily to production processes that are more efficient, and new available technology.

Service industry employers will add approximately 18,400 jobs to the region's labor market by 2005. The largest divisions within this industry group will be business and health services with a similar growth in professional or technical jobs. With the aging of the population, the demand for such services will continue to increase. The overall health of the Northeast Wisconsin economy is projected to be strong with no major projected decreases in any occupation or industry.

However, since September 11, 2001 the economic projections have slowed. Unforeseen events had sent the U.S. market into a recession. But, the earlier projected economic forecasts can still remain viable - so long as further national and international markets continue to recover and no more attacks against U.S. interests take place. Manitowoc and Calumet counties as well as the region felt the economic slowdown this past year, but already the economy has begun to turnaround as confidence levels of consumers increased.

Chapter 2 - AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

INTRODUCTION

The City of Kiel is one of a small number of communities within the state of Wisconsin that has its boundaries in more than one county. The city lies mostly in the southwestern portion of Manitowoc County, but the western most side of the city lies in the southeastern portion of Calumet County. The city encompasses an area of approximately 2.4 square miles or 1,520 acres and has the Sheboygan River flowing through the southeast side. The center of Kiel is at the crossroads of STH 32/57 and STH 149. Neighboring communities include, Fond du Lac, 30 miles to the southwest; Plymouth, 12 miles south; Sheboygan, 20 miles southeast, New Holstein, four miles northwest and Manitowoc, 23 miles northeast. Kiel's planning area extends 1.5 miles from the city boundary, and it's boundaries are in Manitowoc, Calumet and Sheboygan counties. However, an overlapping jurisdiction occurs with the city of New Holstein 1.5 mile boundary. The city does not have jurisdiction over the overlapping area where a line divides the jurisdictional boundaries (See Wisconsin Statute 66.0105 and Map 2.2). Map 2.1 shows the location of the city of Kiel and its 1.5 mile planning area in relation to the Bay-Lake Region, while Map 2.2 illustrates the community planning area.

The city of Kiel is a member of the Bay-Lake Regional Planning Commission. The Commission is comprised of eight counties in northeast Wisconsin: Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Oconto, and Sheboygan Counties. The region contains a total area of 5,325 square miles.

SUMMARY AND IMPLICATIONS

There are a variety of natural amenities found within the city of Kiel and its planning area. The Sheboygan River is an important surface water resource, that serves as an important recreational resource and carries most of the storm and surface water runoff. In addition, wetlands make up approximately 3,003 acres of the planning area. The Kiel Marsh Wildlife area is a large wetland located in the southwestern portion of the planning area. The Marsh is an important wildlife and fish habitat, as well as a groundwater recharge area. The city relies on a good groundwater source to provide its residents with safe drinkable water. At this time, land uses within the city pose a minimal threat to the ground water. Areas of steep slope (12 percent or greater) exist in the eastern portion of the planning area and can present unique challenges to development. Many sites of historic or archeological importance also exist within the city and the surrounding planning area. Floodplains in the city exist along the Sheboygan River and the Kiel Marsh area. In regards to air quality, the city is currently classified as a moderate non-attainment area for ground-level ozone. Both threatened and endangered species exist within Manitowoc, Calumet and Sheboygan counties and likely within the city of Kiel. The city's planning area also has plenty of wildlife habitat available for the diverse fauna that lives within the area, especially along the Sheboygan River and within the Kiel Marsh area.

The natural resources within the city and its planning area will need to be monitored and in some cases protected in order to preserve them for future generations. As growth pressures begin to climb, the city will need to consider future impacts on these resources against any proposed

future gains. Community “character” will be of importance as well. Preserving/promoting a sense of place is key for all communities.

NATURAL RESOURCES STRATEGY

The following Goals, Objectives, Policies, and Programs will help guide the city in protecting and utilizing the natural resources within the city. The following statements are a compilation of broad and specific statements reflecting many popular attitudes and beliefs of city residents, communities adjacent to the city, and state agencies.

Goal: Natural Resources

Provide a safe, clean and orderly natural environment for the residents of the city of Kiel.

Objectives:

1. Require enforcement of existing regulations in environmentally sensitive areas.
2. Conserve and enhance the presence of the city’s distinctive natural amenities by recognizing the special attractiveness of the city’s natural landscapes and open spaces.
3. Development adjacent to rivers, lakes, streams, and wetlands needs to be carefully planned in order to not negatively impact these areas.

Policies:

1. Identify key natural resources.
2. The city will communicate with residents regarding regulations.
3. Discourage development in environmental corridors.
4. Maintain water levels and preserve surrounding natural areas that relate to the Rockville Dam.
5. Identify and protect the public open spaces and wildlife habitats from development to preserve the city’s scenic areas.
6. Make an effort to diversify the types of trees within the city.

Programs:

1. Work with Manitowoc, Calumet and Sheboygan counties on informational programs and brochures regarding natural resources to educate and inform the public.
2. Establish a sub-committee that would work with the city and County Zoning Departments to further explore ways to best utilize or preserve natural features within the city’s planning area.
3. Establish a sub-committee that would work with the city and County Zoning Departments to further explore ways to best utilize or preserve natural features within the city’s planning area -such as through WDNR grants for lake or river protection plans, which funds up to 75 percent of the project.
4. Encourage a buffer area (a zone of no buildings) around delineated wetlands.

5. Work to ensure enforcement of floodplain zoning, conservancy zoning and shoreland zoning ordinances to protect water quality.
6. Establish a Forestry Committee for the city.
7. Lake Planning Grant Program - which has available funds to collect and analyze information needed to protect and restore lakes and their watersheds. Types of projects include physical, chemical, biological, and sociological data collection, water quality assessment, and watershed evaluation including county-wide or regional initiatives. This program is administered through the Wisconsin Department of Natural Resources.
8. Lake Protection Grant Program - which provide funding to protect and improve the water quality of lakes and their ecosystems. Grants are available for purchasing land or easements, restoration of wetlands, development of local regulations to protect water quality, lake improvement activities called for in the Department approved plan, and countywide lake classification. The Wisconsin Department of Natural Resources administers these grants.

Goal: Agricultural Development/Preservation

Provide for the future viability of the agricultural resources within the city's planning area until a time it can be converted to a higher best use.

Objectives:

1. Encourage efforts to keep agricultural uses in and adjacent to the city until a time that these lands can be converted to a higher best use.
2. Provide for an orderly changeover of agricultural land to other uses.
3. Buffer non-farming uses from agricultural lands in order to lower the number of possible nuisance complaints (by city residents) regarding these agricultural lands.
4. Cooperate with the towns of Schleswig, New Holstein, Rhine and Russell on all land development within the planning area to limit locating incompatible land uses adjacent to one another.

Policies:

1. Develop an Official Map detailing future plats within the city and its planning area (Extraterritorial Plat Authority area). Those areas adjacent to farmlands should be planned with adequate buffers.
2. Coordinate with the towns of Schleswig and New Holstein in the future planning of agricultural lands adjacent to the city. Areas that are to remain in agricultural production should be buffered from existing and future developments of the city.

Programs:

1. The City Council and City Plan Commission will meet/consult with the towns of Schleswig, New Holstein, Rhine and Russell; Manitowoc, Calumet and Sheboygan Counties; BLRPC; and the state to ensure cooperation in land use planning especially

with those lands on the periphery of the city and within the extraterritorial planning area.

2. The city will continue to inform and work with its neighbors on future land use plans/changes according to s 66.1001.

Goal: Sand and Gravel Mining Resources

Future mining sites will not negatively impact the city planning area or its residents.

Objectives:

1. All possible mining sites will be identified and mapped by Manitowoc, Calumet and Sheboygan counties for the Kiel's use.
2. Incompatible uses with mining will not develop adjacent to one another.
3. Views, the natural environment and rural characteristics will not be harmed by mining operations.

Policies:

1. The city will steer incompatible uses away from identified mining sites.
2. The city will acquire the Manitowoc, Calumet and Sheboygan county mining location maps and use them when deciding land use issues.
3. The city will work with surrounding towns in its planning area to ensure all abandoned, present and future mining operations will someday be reclaimed to a natural setting.

Programs:

1. The city will work with the adjacent towns and counties to locate possible mining sites within the city's planning area.
2. The city will inform residents of any future mining sites.
3. The city will work with the surrounding towns and counties and to ensure that incompatible uses do not develop adjacent to one another or in a location that will foster conflict.

Goal: Historic, Archeological and Cultural Sites

The city's historic, archeological and cultural locations and structures will remain preserved for the city residents.

Objectives:

1. To preserve buildings (churches, historic homes and buildings), structures (out buildings, bridges, etc.) and other landscape features (cemeteries, fence lines, etc.) that are the city's cultural history.
2. These resources will be identified to the city residents for their information and possible use.

Policies:

1. The city will work to preserve the locations of these sites.
2. The city will discourage the destruction of these sites and will not allow incompatible uses around them that would have negative impacts on the resource.
3. The city will work to recognize historic figures or events

Programs:

1. The city will work with federal, state and county agencies to ensure all sites are identified and properly protected.
2. Develop a sub-committee to work with the City of Kiel Historical Society that will explore the future integration of these areas into possible recreation sites, in conjunction with the surrounding towns and counties.
3. Utilize festivals/celebrations to honor notable individuals and/or historic events.
4. Wisconsin Historical Society, Office of Preservation and Planning (OPP) - is the agency that can assist local communities on providing information on how you can preserve and protect historical properties, assist in grassroots strategies for preservation and protection of historical properties, can provide information on state and federal laws and regulations.

Goal: Wildlife Resources

Maintain the city's diverse wildlife habitat for all city residents and visitors to enjoy.

Objectives:

1. Protect the city's areas of threatened and endangered species.
2. Maintain connections among wildlife habitat areas.

Policies:

1. Support the preservation of key habit areas and large undeveloped contiguous natural areas.
2. Support neighboring jurisdiction's wildlife preservation plans.
3. Incorporate natural resource areas in plans for parks and open spaces.
4. Seek funding for grassland protection - Conservation Reserve Enhancement Program and WDNR.
5. Promote native species landscaping.

Programs:

1. The city will work with federal, state and county agencies to seek funding for habitat protection.
2. Stewardship Grants for Nonprofit Conservation Organizations - provide funding for the acquisition of land or easements for conservation purposes, and restoration of wildlife habitat. Nonprofit conservation organizations are eligible to apply. Priorities

include acquisition of wildlife habitat, acquisition of lands with special scientific or ecological value, rare and endangered habitats and species, acquisition of stream corridors, acquisition of land for state trails and restoration of wetlands and grasslands. The Department of natural Resources administers these grants.

CLIMATE

The climate in and around the city of Kiel is typical of eastern Wisconsin. The climate is classified as continental with cold winters, moderate snowfall, and warm summers with periods of hot, humid conditions. The nearby waters of Lake Michigan exert a modifying influence on the climate. The average annual precipitation is approximately twenty-nine inches with 65% of the total yearly precipitation falling from April to November. There are approximately 155 days to the growing season.

Weather conditions are favorable for agricultural purposes. The climate is suitable for most urban and rural activities and does not severely interfere with the movement of vehicles and goods; however, extreme cold snaps during the winter can affect construction activities.

GEOLOGY

Glacial Geology

The topography of Manitowoc County is essentially a result of the last two substages of the Wisconsin Stage of Glaciation. Each glacial substage carried in glacial debris known as “drift” or “till” and pushed or deposited it to form plains, depressions, valleys and hills. The most recent substage of the Wisconsin Stage of Glaciation did not cover the entire county. This results in the northwest and southwest portions of the county having more difference in relief than the rest of the county. The till left by the glaciers gives the planning area a Kettle Moraine type topography, characterized by gravelly hills, kettle shaped holes and coarse, sandy soils. Map 2.3 shows the glacial (Pleistocene) geology within the planning area. End Moraine is an accumulation of unconsolidated material that was deposited near the end of a glacier, and Ground Moraine is the “till” that was deposited near the edge or directly beneath the base of a glacier usually consisting of clay, silt, sand, pebbles, cobbles and boulders.

Bedrock Geology

A layer of undifferentiated dolomite bedrock from the Silurian age underlies the entire planning area. This series of sedimentary rocks, approximately 75 feet thick, is underlain by a formation known as the Maquoketa Shale. Below the Maquoketa Shale are a group of rock units consisting of sandstone, shale and dolomite, known collectively as the sandstone aquifer. The Maquoketa formation is estimated to be 400 to 450 feet thick. The sandstone aquifer is estimated to be 800 to 850 feet thick.

SOIL LIMITATIONS

Soil is composed of varying proportions of sand, gravel, silt, clay and organic material. The composition of a soil affects the specific properties of that soil. These properties must be evaluated prior to any development. The U.S. Department of Agriculture, Soil Conservation Service, developed a detailed study of all soils in Manitowoc County. Map 2.4 illustrates the two general soil types within the city and its planning area.

General Soils Description

Hochheim-Theresa-Pella

The soils in this series consist of deep, poorly to well drained soils formed in loamy glacial till. Slopes range from 0 to 30 percent. Permeability ranges from slow to moderate. These upland soils are found on drumlins, moraines and outwash plains. The Hochheim and Theresa series have greater slopes, whereas the Pella soils are found on slopes ranging only from 0 to 3 percent. The soils in this series have good potential for crops. Most of the soils are used for cultivated crops such as corn, small grains and alfalfa. The main management concerns for crops are water erosion, improving drainage, and maintaining fertility. These soils have moderate limitations for septic tank absorption fields.

Houghton-Palms-Boots

The soils in this series are formed in deep very poorly drained organic soils that range from 16 to 51 inches thick in depressions on lake plains, outwash plains, moraines, and floodplains. These soils range from moderately slow to moderately rapid permeability, and have slopes ranging from 0 to 6 percent. Most of these soils are in natural vegetation of trees and sedges which provide wildlife habitat. Small areas are in pasture. The soils have poor potential for crops due to drainage problems. These soils have severe limitation for use as septic tank absorption fields because of wetness.

Prime Agricultural Lands

Prime farmland as defined by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) is the land that is best suited to food, feed, fiber and oilseed crops. Urban or built-up areas of these soils are not considered prime farmland. The soil qualities, growing season, and moisture supply are those needed for a well managed soil to produce a sustained high yield of crops in an economic manner. Prime farmland in the planning area is split up into two categories, “all areas are prime farmland” and “prime farmland where drained”. Map 2.5 illustrates these two categories of prime farmland.

Basements

Within the *Soil Survey of Calumet and Manitowoc Counties*, the NRCS provides information on the suitability and limitations of soils for a variety of natural resource and engineering uses. In particular, the soil survey provides information on the limitations of each soil for building site development including the construction of dwellings with basements. Dwellings are considered to be structures built on shallow excavations on undisturbed soil with a load limit the same as for a single family dwelling no higher than three stories. The ratings are based on soil properties, site features and observed performance of the soils.

According to the Natural Resources Conservation Service, severe limitations mean soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. Moderate limitations mean soil properties or site features that are not favorable for the indicated use may require special planning, design, or maintenance to overcome or minimize limitations. Slight limitations mean soil properties and site features are generally favorable for the indicated

use and limitations are minor and easily overcome. Map 2.6 shows these limitations for dwellings with basements.

TOPOGRAPHY

There is a continuous rise in the land from the shores of Lake Michigan westward across Manitowoc County. This landscape and the distribution of soils in Manitowoc County are largely the result of the two different glacial drifts that covered the area. Within the planning area the topography ranges from 1,040 feet above sea level in the southeast and in the west central, to 860 feet above sea level in the east central part along the Sheboygan River. The average topography in the area is between 900 and 950 feet above sea level. Areas of steep slope (12 percent or greater) should be looked at as a building site limitation. Within the planning area there are 2,560 acres of steep slope, mostly located in the southern and eastern sides. Map 2.7 shows these areas of steep slope.

WATER RESOURCES

Watersheds

There are two watersheds defined by the Wisconsin Department of Natural Resources (WDNR) within the planning area. They are the Sheboygan River watershed and the South Branch Manitowoc River watershed. The majority of the planning area is located within the Sheboygan River watershed which covers the southern and eastern two-thirds of the planning area, while the South Branch Manitowoc River watershed covers the northern and western third. Map 2.8 shows the location of these watersheds within the planning area.

The Sheboygan River watershed was designated as a priority watershed under the Wisconsin Nonpoint Source Water Pollution Abatement Program in 1985. This program selects priority watersheds based on numerous factors including unique species, potential to respond positively to nonpoint source controls and sensitivity to phosphorus loading. Governmental units within these priority watersheds can then apply for grants for installing best management practices.

Groundwater

Groundwater resources are available in limited quantities, therefore conservation and management of it is important. According to the WDNR, the city of Kiel planning area gets most of its groundwater from the Silurian-dolomite aquifer. The depth of this aquifer is approximately 30 feet below the surface, which in turn has an impact on the quality of the water, as well as its susceptibility to contamination.

In general, shallow, permeable water table aquifers are at greatest risk of contamination. According to the EPA, the groundwater in Manitowoc County is moderately susceptible to contamination, thus water quality problems could result within the county. Agricultural runoff and septic systems are just two of the sources that may have a high level of potential impact on the groundwater quality within the county.

Lakes

Shoe Lake

Shoe Lake is a 10 acre seepage lake that has a maximum depth of 34 feet, and has hard, brown water with moderate transparency. Muck is the predominant littoral material. The lake is managed for largemouth bass and panfish, although rainbow trout have been stocked. Public access is available with parking and provides about 60 feet of public shoreline.

Graf Lake

Graf Lake (aka. Long Lake) is a small, landlocked seepage lake in terminal moraine. The hard, alkaline, light brown water has low transparency. Muck is the predominant littoral material. There is no public access.

Map 2.9 shows the location of the lakes within the planning area.

Rivers and Streams

Sheboygan River

The Sheboygan River is a prominent feature that runs through the planning area. The presence of three dams in Manitowoc County alone (Kiel, Rockville and Millhome) documents the extensive use of this river as a power source in early settlement and industrial developments. This 6.7 mile long river is populated by northern pike, bullheads, and crappie. Walleyes also occur, but in less numbers. Carp are abundant in some parts of the river. Sources of organic pollutants have entered the river at Kiel in the past, reducing oxygen levels in the water below levels in which fish and other aquatic life can tolerate. A large wetland on the Sheboygan - Manitowoc County border provides habitat for mallards, blue-wing teal and wood ducks.

Pine Creek

Pine Creek is a small tributary to Lake Michigan with its headwaters originating as the outlet from Carsten Lake. The six mile creek has a moderate gradient, and bottom materials consisting of a combination of muck, rubble and sand. The primary fish species are foraging minnows, although smelt have used the creek for spawning. Access is available at six road crossings.

The rivers and streams in the planning area are illustrated on Map 2.9

Floodplains

Floodplains are often viewed as valuable recreational and environmental resources. These areas provide for storm water retention, ground water recharge, and habitat for various kinds of wildlife unique to the water.

Development permitted to take place in these areas is susceptible to storm damage and can have an adverse effect on water quality and wildlife habitat. In addition, it can also result in increased development and maintenance costs such as: providing floodproofing, repairing damage associated with flooding and high water, increased flood insurance premiums, extensive site preparation, and repairing water related damage to roads, sewers, and water mains. Some communities have special ordinances for buildings within the floodplain for remodeling and expanding. New expansions may have to be compliant to the rules of floodplain construction.

As a result, the state of Wisconsin requires that counties, cities and villages adopt shoreland/floodplain zoning ordinances to address the problems associated with development in floodplain areas. Development in shoreland areas is generally permitted, but specific design techniques must be considered. Development in floodplain areas is strictly regulated and in some instances is not permitted. For planning and regulatory purposes, the floodplain is normally defined as those areas, excluding the stream channel, that are subject to inundation by the 100-year recurrence interval flood event. This event has a one percent chance of occurring in any given year. Because of this chance of flooding, development in the floodplain should be discouraged and the development of park and open space in these areas encouraged.

The authority to enact and enforce these types of zoning provisions in counties is set forth in Chapter 59.97 of the Wisconsin Statutes and Wisconsin Administrative Code NR 116. This same authority is also vested to cities and villages in Chapter 62.23 of the Wisconsin Statutes.

Floodplains within the city of Kiel are found adjacent the Sheboygan River, and in the Kiel Marsh area. The portion of the Kiel Marsh Wildlife Area in Manitowoc County is not included in the floodplain zone. (Map 2.10).

Wetlands

According to the Wisconsin Department of Natural Resources, wetlands are areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophilic vegetation. Other common names for wetlands are swamps, bogs, or marshes. Wetlands serve as a valuable natural resource. They provide scenic open spaces in both urban and rural areas. Wetlands act as natural pollution filters, making many lakes and streams cleaner and drinking water safer. They act as groundwater discharge areas, and retain floodwaters. Finally, they provide valuable and irreplaceable habitat for many plants and animals. Because of their importance, there are strict state and federal regulations regarding wetlands.

Wetlands within the city of Kiel planning area are found primarily in the southwestern portion, along the Sheboygan River in the Kiel Marsh Wildlife Area. Other wetlands are found adjacent to the waterways in the planning area. Table 2.1 shows the different types of wetlands in the planning area, and Map 2.11 shows the location of these wetlands. Please note that the wetlands map is a tool to use as a guide since not all wetlands are identified on the map.

Table 2.1: Wetland Types

Wetland Class	Acres	Percent
Emergents/Wet Meadow	701	23.3
Scrub/Shrub	478	15.9
Scrub/Emergents	332	11.1
Forested	1,106	36.8
Forested/Emergents	67	2.2
Forested/Scrub	305	10.1
Forested/Open Water	15	0.5
Total Wetlands	3,003	100.0%

Source: Wisconsin DNR, 1991.

WOODLANDS

There are a total of 6,346 acres of woodlands within the city and its planning area. Woodlands are displayed on Map 2.12 and depict upland woodlands (Lands not within wetlands) and lowland woodlands (lands within wetlands). Upland woodlands constitute approximately 3,096 acres, whereas the lowland woodlands comprise of 3,250 acres of land in the city planning area.

AIR QUALITY ISSUES

Manitowoc County is designated as a moderate non-attainment area for ground-level ozone. An area is designated a non-attainment area when it does not meet the minimum standards for air quality (NAAQS) set by the Environmental Protection Agency (EPA). The moderate classification is on the basis of a value which is derived from the pollutant concentration (in parts per million) recorded by air quality monitoring devices. Moderate non-attainment areas are given a six year deadline to attain the EPA air quality standards. If non-attainment areas do not meet these and other requirements, they face Clean Air Act required sanctions and other penalties. In the case of Manitowoc County, industries located in other cities may be contributing to the problem of the ground-level ozone. According to the EPA, it was recently found that ozone formed in one area can drift on air currents to add to air quality problems elsewhere. Research shows that this “transported ozone” contributes significantly to high ozone levels in Wisconsin.

Facilities wishing to move into the city of Kiel or its planning area may be subject to additional requirements because Manitowoc County is a designated non-attainment area.

WILDLIFE HABITAT

Habitat for many species of wildlife is provided by woodlands, floodplains, wetlands, and surface water features within the city’s planning area. Wildlife habitat can be defined as areas that provide enough food, cover, and water to sustain a species. Some of the well known species found within planning area include white-tailed deer, ruffed grouse, wild turkey, squirrel, gray fox, red fox, pheasant, muskrat, mink, and raccoon. The surface waters sustain a diverse community of fish, providing many opportunities for sport fishing for locals and tourists alike. Migratory fowl also frequent the area during spring and fall migrations.

THREATENED AND ENDANGERED SPECIES

There are several threatened and endangered animal and plant species within Manitowoc, Calumet and Sheboygan counties. The majority of the animals threatened or endangered are birds or fish.

According to the WDNR, the birds that are threatened in Manitowoc County include: the Acadian Flycatcher, Cerulean Warbler, Great Egret, Hooded Warbler, Osprey, and Red-Shouldered Hawk. Endangered birds include the American Peregrine Falcon, Barn Owl, and the Piping Plover. The Greater Redhorse and the Redfin Shiner are the only fish considered threatened in Manitowoc County. Several plants within Manitowoc County are also considered threatened or endangered according to the WDNR. Plants that are on the threatened list include: Bog Bluegrass, Clustered Broomrape, Dune Thistle, Fairy Slipper, Sand Reed-Grass, Seaside Crowfoot, Shore Sedge, Snow Trillium, Sticky False-Asphodel, and Thickspike. The lone endangered plant within Manitowoc County is the Sand Dune Willow.

Within Calumet County, the only threatened animals include the Yellow Rail (bird) and the Greater Redhorse (fish). The one animal within Calumet County that is endangered is Blanchard's Cricket Frog. Plant life that is threatened within the county includes the Marsh Valerian, Prairie Parsley, Ram's-Head Lady's-Slipper, Round-leaved Orchids, Snow Trillium and Yellow Gentian. The lone endangered plant in Calumet is the Prairie White Fringed Orchid.

Within Sheboygan County, there is one threatened bird (Red-Shouldered Hawk) and two endangered birds (Barn Owl and Piping Plover). There is also one threatened fish (Pugnose Shiner) and one endangered fish (Striped Shiner). In addition, there are two threatened mussels (Ellipse and Slippershell Mussel) and two endangered snakes within the county (Northern Ribbon Snake and Queen Snake). Threatened plants within Sheboygan County include: Clustered Broomrape, Dune Thistle, Forked Aster, Marsh Valerian, Ram's-Head Lady's-Slipper, Round-leaved Orchids, Sand Reed-Grass, Snow Trillium, Sticky Goldenrod, Thickspike and Yellow Gentian. The endangered plants include: Cooper's Milkvetch, Early Anemone, Prairie White Fringed Orchid, Seaside Crowfoot, and the Small Skullcap.

PARKS AND OPEN SPACES

There are many park and recreational opportunities available to the residents of the City of Kiel and its planning area. Within the city there are nine parks, and three public school facilities that provide a variety of opportunities for all sorts of recreation. Within the planning area, Kiel Marsh Wildlife Area allows fishing and boating. Park and recreation facilities are discussed in greater detail in Chapter 6.

SCIENTIFIC AND NATURAL AREAS

The Kiel Marsh Wildlife Area covers 800 acres of state owned land in Sheboygan, Calumet and Manitowoc Counties. Principle wildlife include waterfowl, furbearers, northern pike, panfish, great blue herons, and black terns. The primary habitat types are brush, marsh, forest, and open water. Public access with parking and a boat launch is available from 8th Street in Kiel. Canoeing and fishing are the primary recreation. Map 2.13 shows the location of the Kiel Marsh Wildlife Area.

OTHER LOCAL KEY NATURAL FEATURES

The Kiel Plan Commission and BLRPC staff did not identify any sites that would be considered a "key" natural feature, other than those already discussed under a previous sub-section of this chapter. In the future, if the city wishes to note/describe additional areas in which residents have determined that there should be additional features given special considerations (not already falling within a sub-section above) they should note/describe them here.

HISTORIC/CULTURAL AND ARCHEOLOGICAL RESOURCES

There are numerous historical sites located within the planning area. The city alone has 46 sites on the State Historical Society of Wisconsin's Architecture and History Inventory (AHI), while another 40 lie within the planning area. Please note that these sites are not all eligible by the State Historical Society of Wisconsin. It is a list compiled by many individuals on the belief that these areas be considered for eligibility. There is a possibility that several structures or sites may not be listed, and some of the listed structures may have been torn down. For further information, please contact the State Historical Society of Wisconsin, 816 State St., Madison, WI 53706.

All of listed archeological sites within the planning area are located on the eastern side along the Sheboygan River. Three campsites, and three mound sites were found, as well as one cemetery site. Copper spears and chisels and stone tools were also found. Care should be taken when excavation is done within the city of Kiel planning area, since there is the possibility of disturbing a historical or archeological site. The State of Wisconsin requires any findings of human bones to be reported (*Wisconsin Statute 157.70*) so an investigation can be done by the State Historical Society. Also, land developers trying to obtain state permits from the Wisconsin Department of Natural Resources or any development involving federal monies, are required to be in compliance with Section 106 of the National Historic Preservation Act and 36 CFR Part 800: Protection of Historic Properties.

METALLIC AND NON METALLIC MINING RESOURCES

There is currently no metallic mining within the Kiel Planning area. Metallic mining in Wisconsin has occurred since the time it was settled. Metals mined in the state include copper, lead, iron, and zinc. Mining has economic value to multi-regional areas, but also has the ability to potentially harm natural resources. Any new mines need to have a permit granted by the WDNR and are subject to the requirements of NR 135, which includes a reclamation plan. This plan is a detailed technical document designed to meet the goals which lead to successful reclamation and will help reduce the effects to the environment once the mine is abandoned. The plan has minimum standards that must be met in order to be accepted. The WDNR defines successful reclamation as “the restoration of all areas disturbed by mining activities including aspects of the mine itself, waste disposal areas, buildings, roads and utility corridors”. Restoration is defined as, “returning of the site to a condition that minimizes erosion and sedimentation, supports productive and diverse plants and animal communities and allows for the desired post-mining land use”.

Though metallic mining does not exist within the area, there exists non-metallic mining sites in several portions of the county. Care needs to be continued to ensure that these operations do not negatively impact the neighboring properties as well as the Kiel area. This not only includes noise and odors, but effects on groundwater and the area’s transportation system.

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS

Environmental corridors serve many purposes. They protect local water quality and wildlife habitat through identification and preservation of areas sensitive to development. They can be used as a means of controlling, moderating, and storing floodwaters while providing nutrient and sediment filtration. Environmental corridors can provide fish and wildlife habitat, recreational opportunities, and serve as buffers between land uses while improving the aesthetics of the community.

The Commission has defined a regional standard for environmental corridors to include the following set of uniformly available information: Wisconsin Department of Natural Resources wetlands; 100-year FEMA floodplains; areas with slopes greater than or equal to 12 percent; lakes, rivers, streams and ponds; a 75-foot lake and river setback; and, a 25-foot buffer of wetlands. Other features that are considered as part of the environmental corridor definition on an area by area basis include: designated scientific and natural areas; unique and isolated woodland areas; scenic viewsheds; historic and archaeological sites; unique geology; wetland mitigation sites; isolated wooded areas;

unique wildlife habitats; parks and recreation areas; and other locally identified features. Within the planning area there are 6,646 acres of environmental corridors (Map 2.14).

COMMUNITY DESIGN

Community design deals with the large-scale organization and design of the city, particularly the organization of the buildings and the space between them. An evaluation of community design is often subjective and requires personal judgement. In an effort to remove this subjectivity, the community design resources of the city of Kiel have been inventoried according to the following five criteria that represent the building blocks and language of community design:

Signage

Community character can be impacted quite dramatically by the type of signs allowed throughout the community and along transportation corridors. In order to preserve a sense of place and to help define community character without it being dictated by competing signage, the community can follow the general standards (commonly used in municipalities) below:

- Free standing signs (excepting those along highways and freeways) should never exceed a height of 20 feet, and only heights below eight feet are consistently considered as noticeably low. These low monument signs can be effectively landscaped to meet desired community visions while tall pylon signs are unable to readily achieve this. No buildings should be allowed more than one freestanding sign, to include a single use or a center.
- Wall signs should relate to the area of the wall on which they are located. No wall should contain more than one sign (except a center type development). Centers should maintain consistency between sign materials and location of signs. In a development with a number of occupants, individual outside signage should not be allowed for every occupant rather the smaller occupants should only have nameplate signs on a kiosk sign.
- Many zoning ordinances prohibit types of signs that can distract drivers or cause a nuisance. Those signs that should be prohibited because of this and due to their being difficult to make and keep attractive include off-site advertising signs, roof signs and portable signs. Billboards can have the potential to degrade the community's entryways "doorways" and should be prohibited within these areas. Additional signs for prohibition include those that are inflatable, flashing, rippling or sparkling, strings of lights, use of tinsel, "pom poms", pinwheels, pennants, banners, and streamers. The community needs to evaluate whether changeable letting, electronic message boards, and trademark color schemes are to be prohibited if considered disruptive to the community or detract from the visual character of the community.

Landmarks

Landmarks are important reference points that represent a prominent feature of the landscape and have the ability to distinguish a locality, mark the boundary of a piece of land, or symbolize an important event or turning point in the history of a community.

- Kiel City Hall
- Kiel Schools

- Kiel Mill
- 1st Street Bridge
- Hingiss Park Foot Bridge
- Kiel Cemetery
- Churches
- Indian Hill (Kiel Community Center, Kiel Public Library and Stoelting House)
- Colonel Henry Belitz Memorial
- Kiel Dam
- Kiel Historical House

Pathways

Pathways are linear features that represent both vehicular and pedestrian movement. Pathways provide connections between places, as well as along them. Whether a major arterial, local street, or undefined woodland trail, pathways are hierarchical and represent a degree of usage.

Major:

- State Highways 67, 149, and 32/57.

Secondary:

- County Highways XX and AA.

Minor Pathways:

- City local road network
- Sheboygan River
- Solomon Trail (Kiel/New Holstein Trail)
- City bicycle/walkway system

Edges

Like pathways, edges are linear. Edges are important organizing elements that represent boundaries that can be either soft or hard, real or perceived.

- Sheboygan River
- Railroad tracks
- Manitowoc/Calumet County line

District

Districts encompass areas of commonality. Examples of districts may include a residential district or central business district. These areas represent buildings and spaces where clearly defined and separate types of activities take place.

- Fremont Street District
- River Terrace District

- Rockville District
- Northwestern Commercial District
- Northeastern Commercial District

Nodes

Nodes are specific points of recognition. They are destinations and very often represent the core or center of a district. In addition, nodes are closely associated with pathways as they provide access to and from districts. An example of nodes within a district may include separate areas for government functions versus entertainment activities within a central business district.

- Fremont Street business area
- Indian Hill

Community Entryways

Community entryways are associated with edges in that the entryway begins at an edge. Entryways can be unique and are very valuable assets for they help define a community to those using the entryway. In many cases these entryways are more correctly described as “Doorways” to a community. How people perceive an entrance to a business area or doorway to a city will determine whether they stop or drive on through the community. These points of interest need to be protected or enhanced through the use of zoning standards requiring landscaping, building design, signage, lighting, and public furnishings.

The ***Primary*** entryways into Kiel should be protected and enhanced. These areas may contain high quality public entry signs and/or public art which is used to formally announce entry to the city. In order to preserve a sense of place and to help define community character, it is recommended that the city of Kiel install signage on several of the highways entering the city. Around the city’s periphery, primary entrances include:

- STH 67;
- STH 149;
- STH 32/57;
- CTH XX;
- CTH AA.

The ***Secondary*** entryways into the city of Kiel are more subtle portals enjoyed by local residents. The use of formal entry markers such as signage and artwork should be low key, if used at all.. Likewise, off-site signage may negatively impact these smaller “doorways” and thus should be considered on a case by case basis.

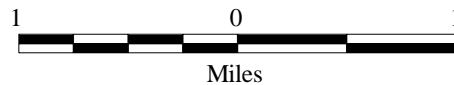
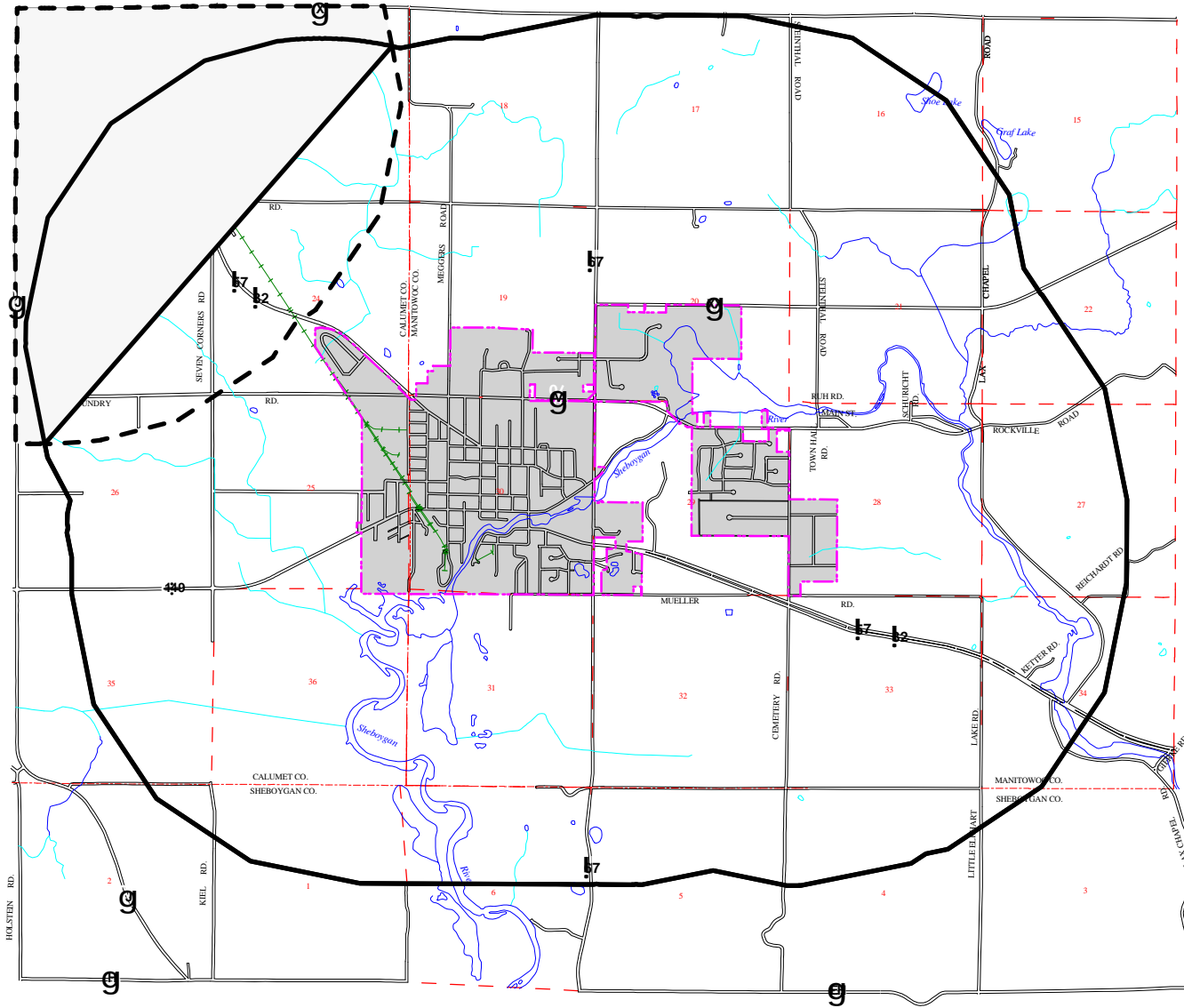
- 1st Bridge
- CTH X
- Foundry Road
- Meggers Road
- Rockville Road



Planning Area

City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties



- Incorporated Communities
- City of Kiel 1.5 Mile Extraterritorial Boundary
- City of New Holstein 1.5 Mile Extraterritorial Boundary
- Overlapping Jurisdictional Boundary (Wisconsin Statute 66.0105)

Map Features

- State Highway
- County Highway
- City Limits
- County Boundary
- Local Road
- Surface Water Features
- Railroad Corridor
- Section Line
- Section Number










Source: Bay-Lake Regional Planning Commission, 2002.

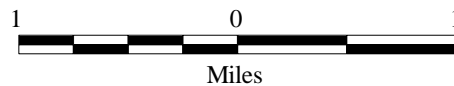
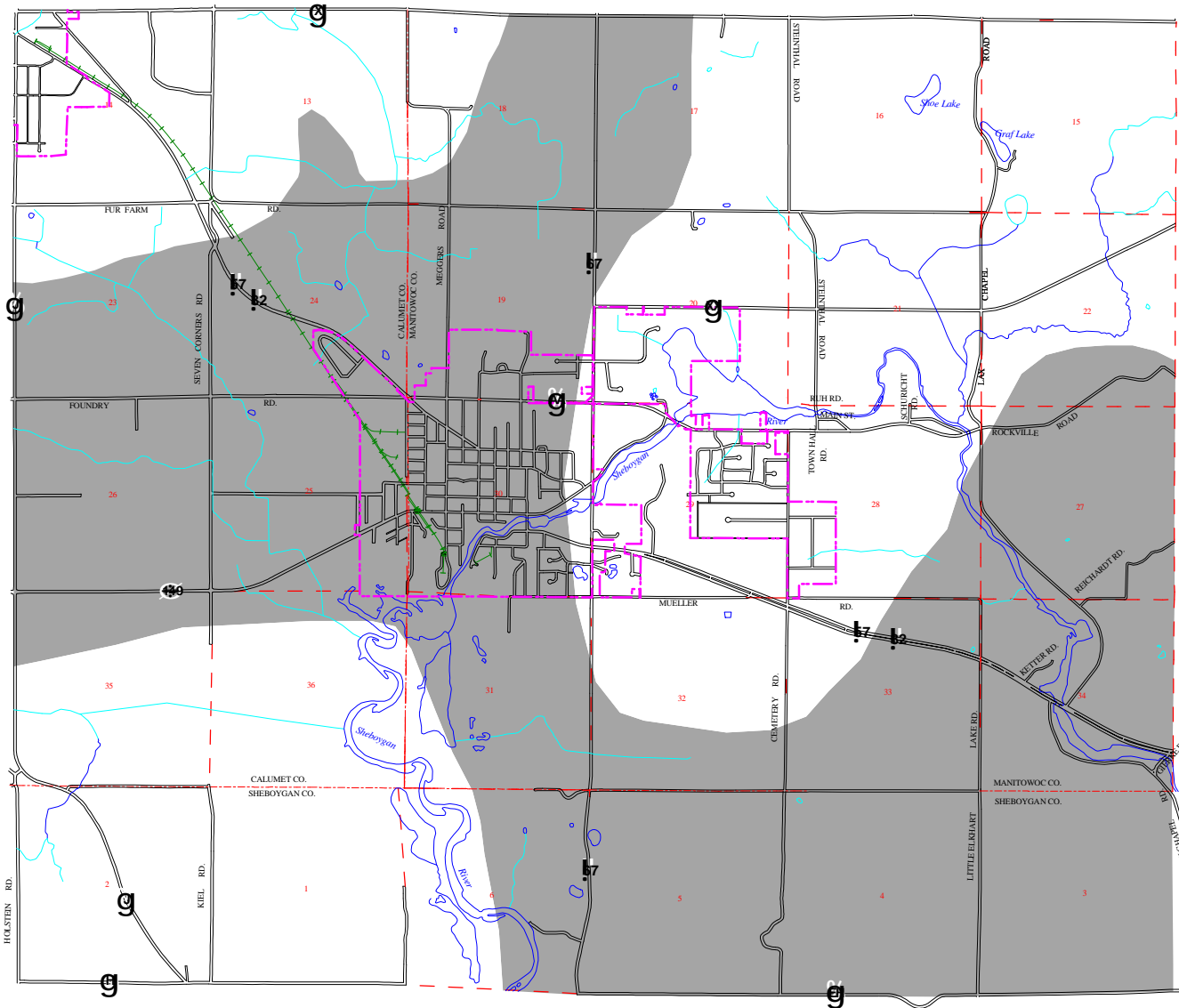


Map 2.3
Pleistocene Geology
 City of Kiel Planning Area
 Calumet, Manitowoc &
 Sheboygan Counties

 End Moraine - Qe
 Ground Moraine - Qg

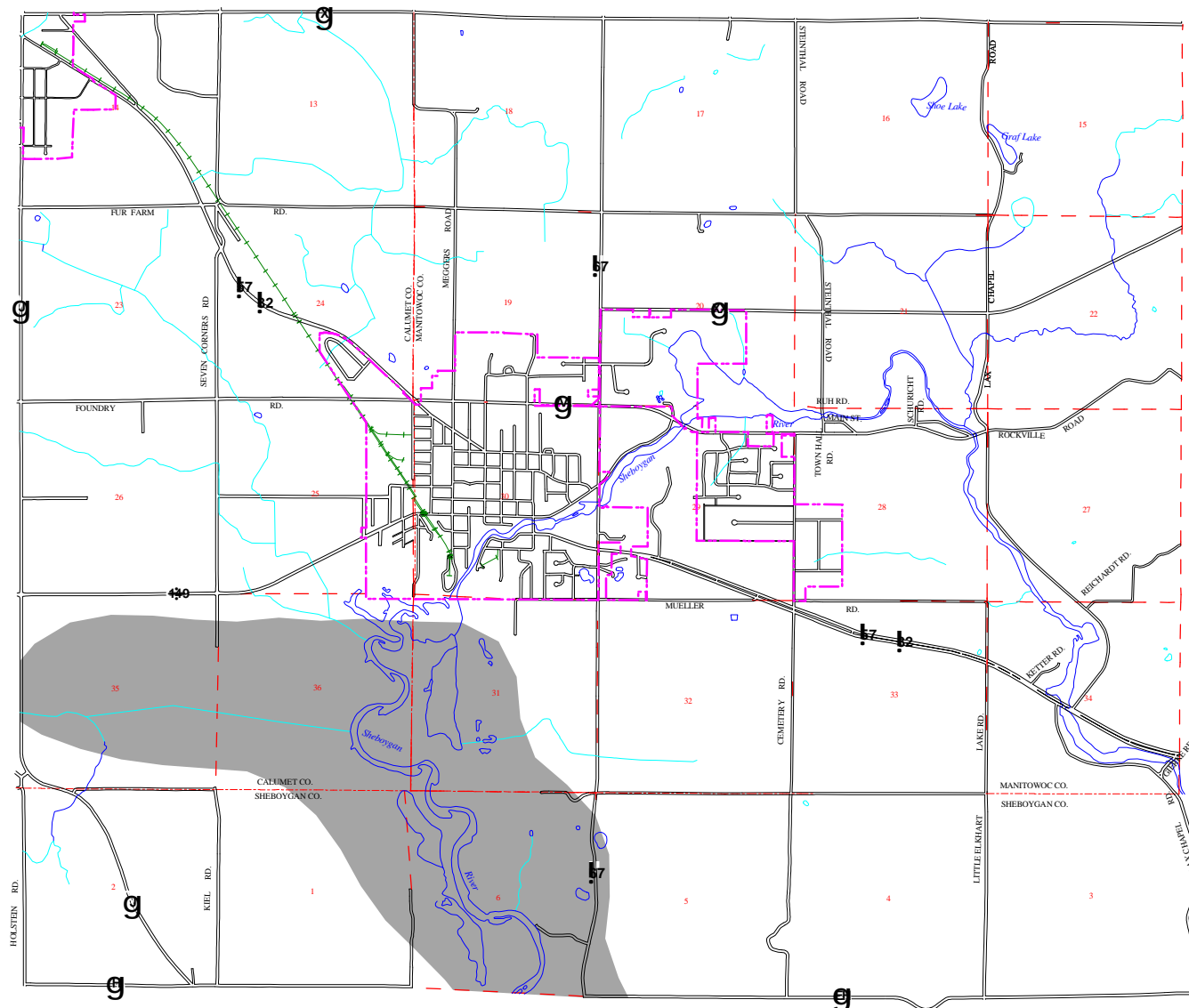
Map Features

 State Highway
 County Highway
 City Limits
 County Boundary
 Local Road
 Surface Water Features
 Railroad Corridor
 Section Line
 Section Number












Source: NRCS, 1978; Bay-Lake
 Regional Planning Commission, 2002.





 Houghton-Palms-Boots
 Hochheim-Theresa-Pella

Map Features

- | | |
|---|------------------------|
|  | State Highway |
|  | County Highway |
|  | City Limits |
|  | County Boundary |
|  | Local Road |
|  | Surface Water Features |
|  | Railroad Corridor |
|  | Section Line |
|  | Section Number |

Source: NRCS, 1978; Bay-Lake Regional Planning Commission, 2002.



Map 2.5










Prime Farmland

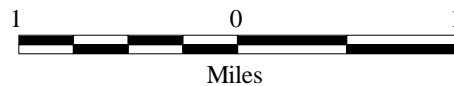
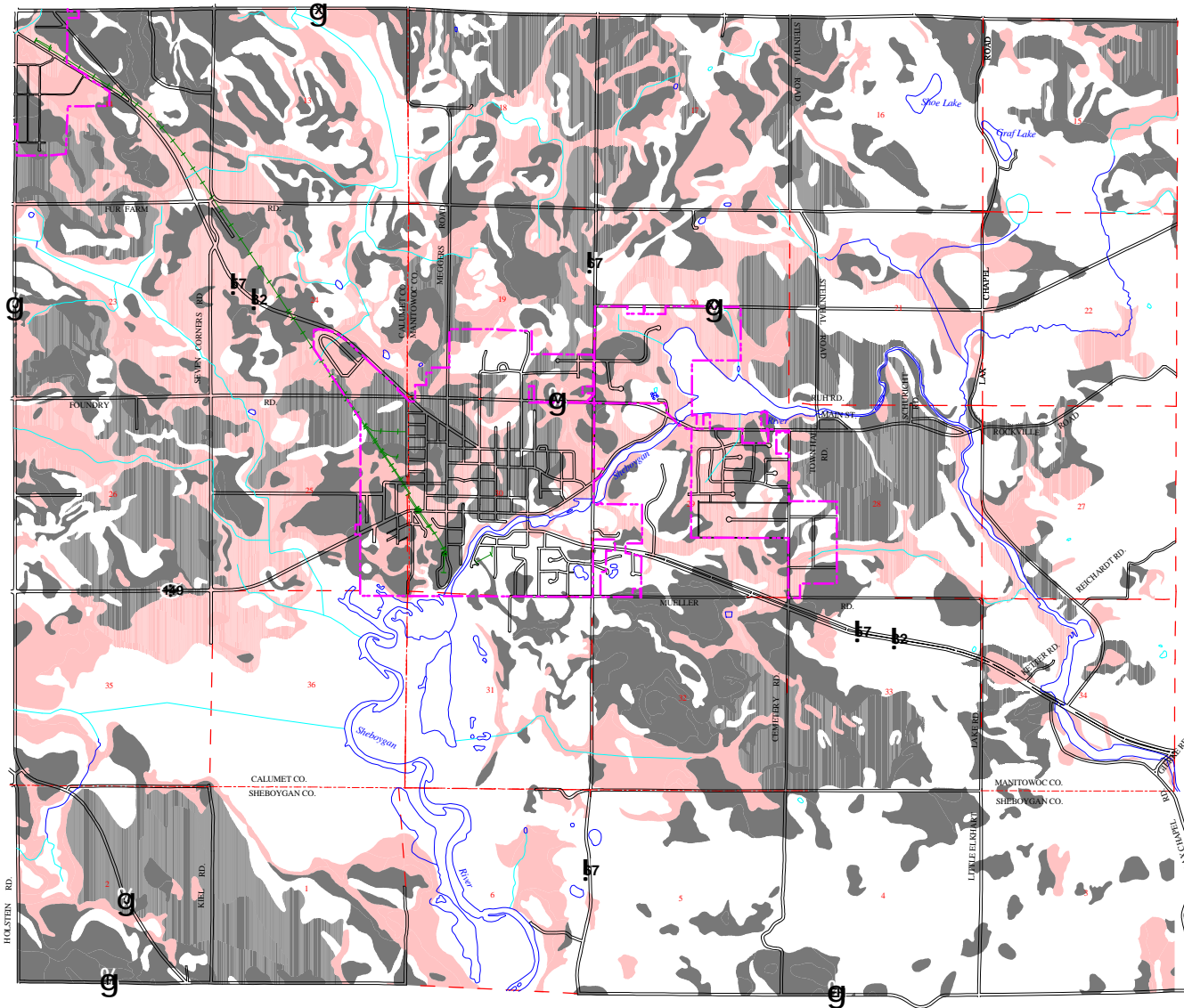
City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

-  Not Prime Farmland
-  All Areas Prime Farmland
-  Prime Farmland Where Drained

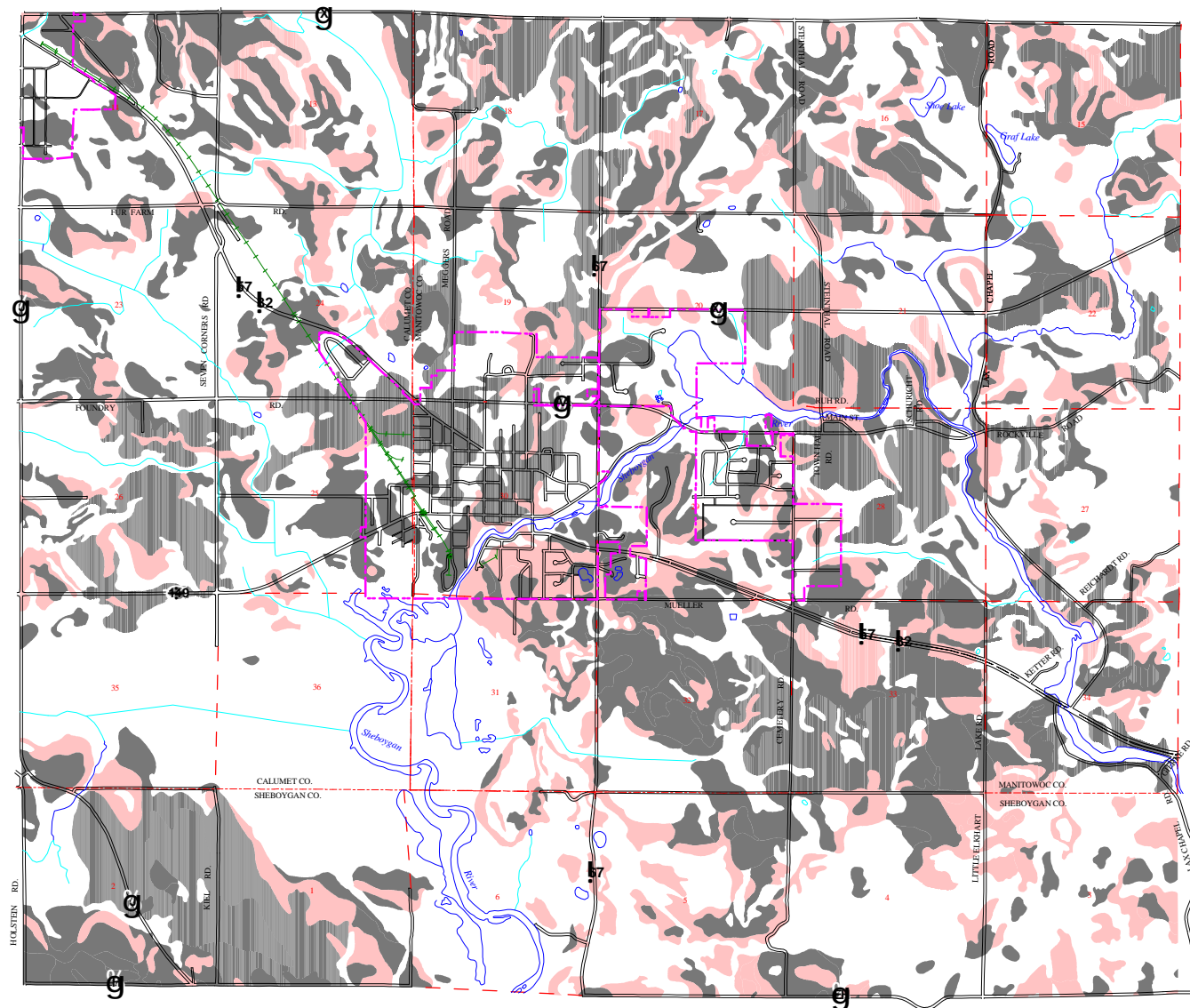
Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number



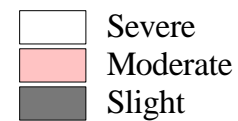
Source: NRCS, 1978; Bay-Lake
Regional Planning Commission, 2002.



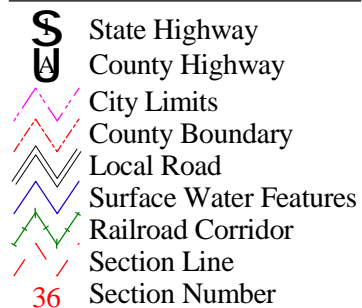


1 0 1
Miles

Map 2.6
Soil Limitations for
Dwellings with Basements
City of Kiel Planning Area
Calumet, Manitowoc &
Sheboygan Counties

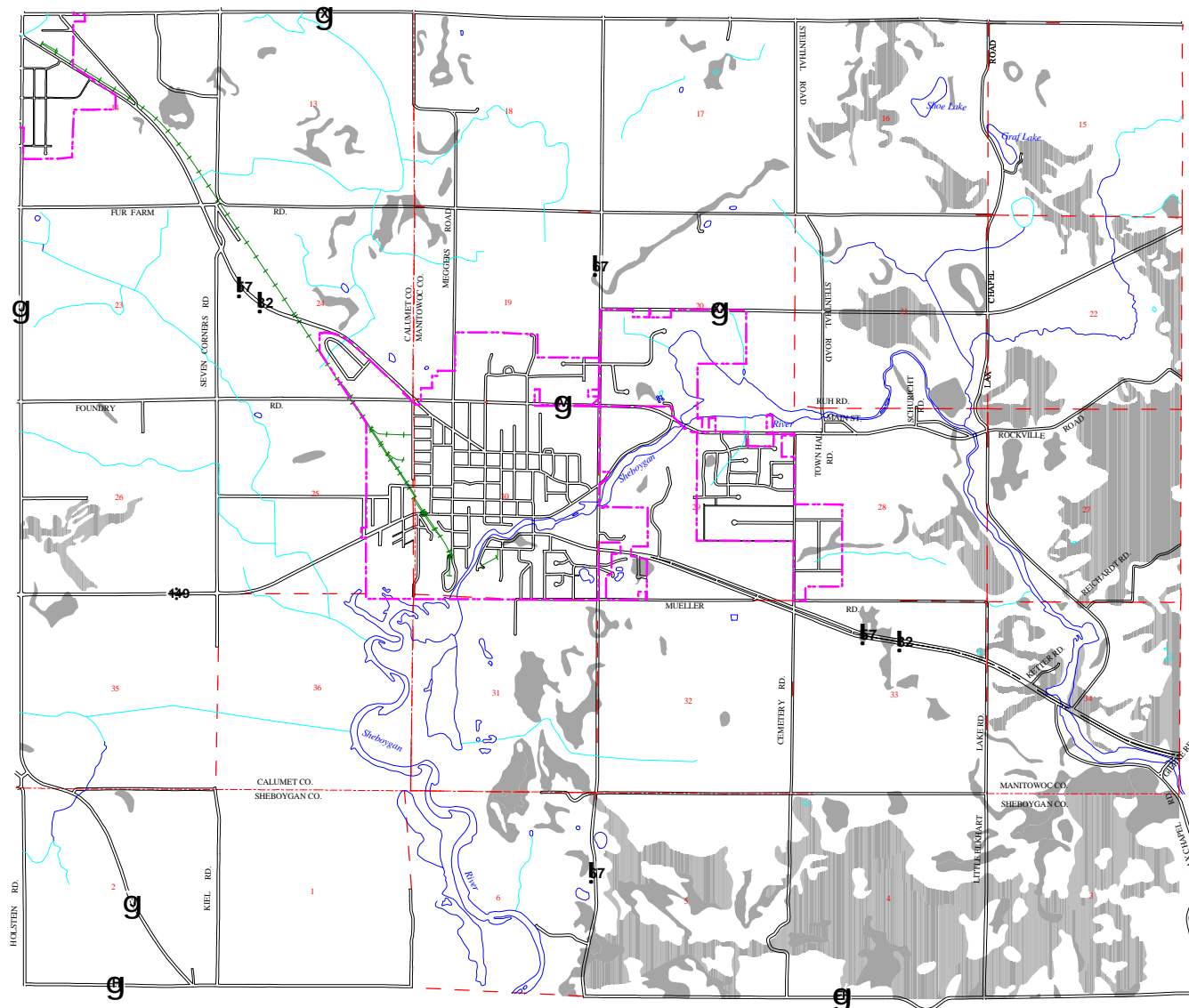


Map Features












Source: NRCS, 1978; Bay-Lake
Regional Planning Commission, 2002.





 Slope Greater than 12 Percent

Map Features

- | | |
|---|------------------------|
|  | State Highway |
|  | County Highway |
|  | City Limits |
|  | County Boundary |
|  | Local Road |
|  | Surface Water Features |
|  | Railroad Corridor |
|  | Section Line |
|  | Section Number |

Source: NRCS, 1978; Bay-Lake Regional Planning Commission, 2002.












Watersheds

City of Kiel Planning Area

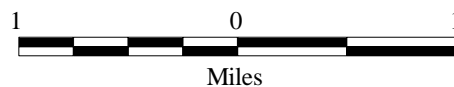
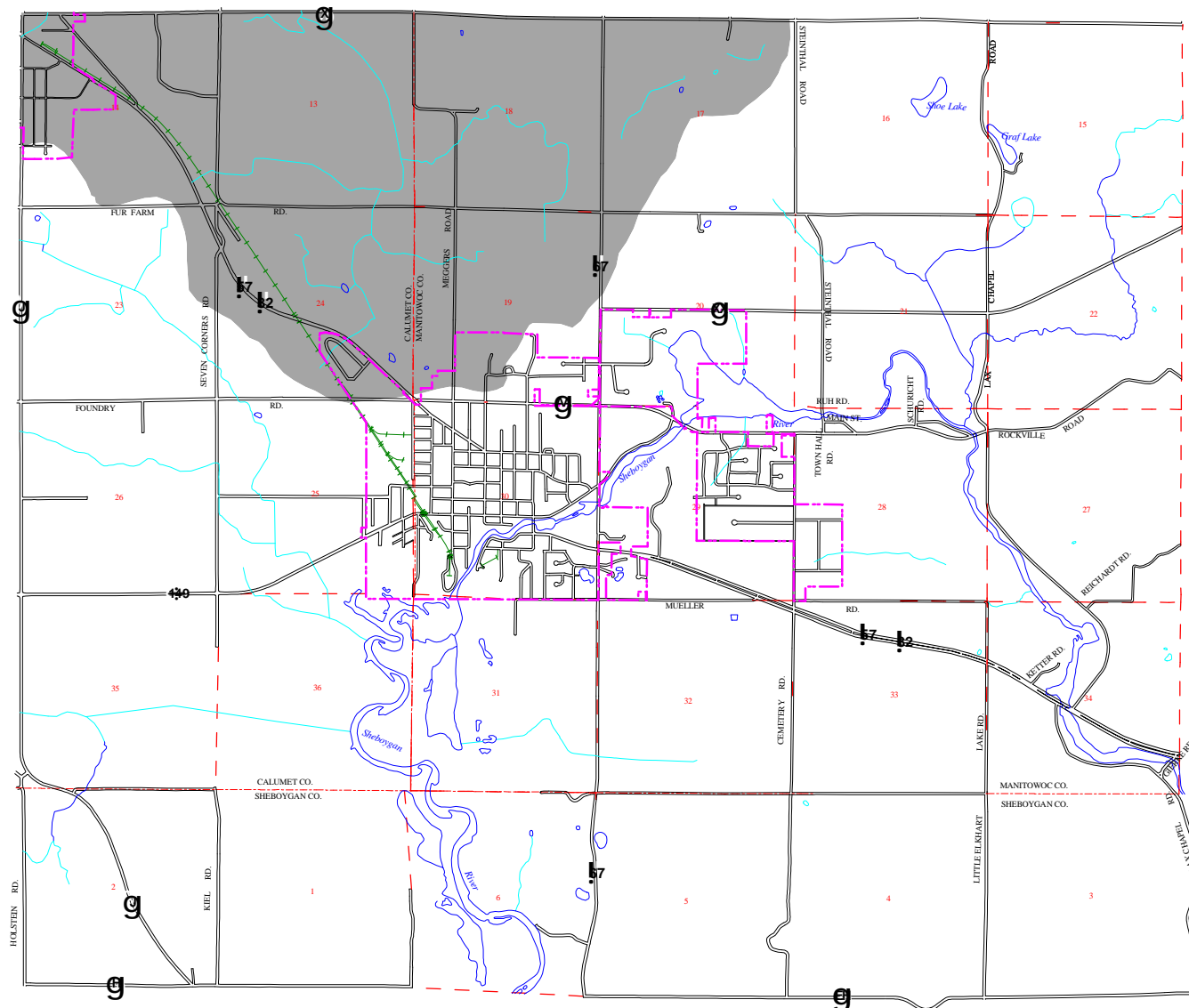
Calumet, Manitowoc & Sheboygan Counties

 Sheboygan River
 South Branch Manitowoc River

Map Features

 State Highway
 County Highway
 City Limits
 County Boundary
 Local Road
 Surface Water Features
 Railroad Corridor
 Section Line
 Section Number

Source: WDNR, 1992; Bay-Lake Regional Planning Commission, 2002.












Surface Water Features

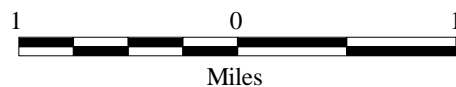
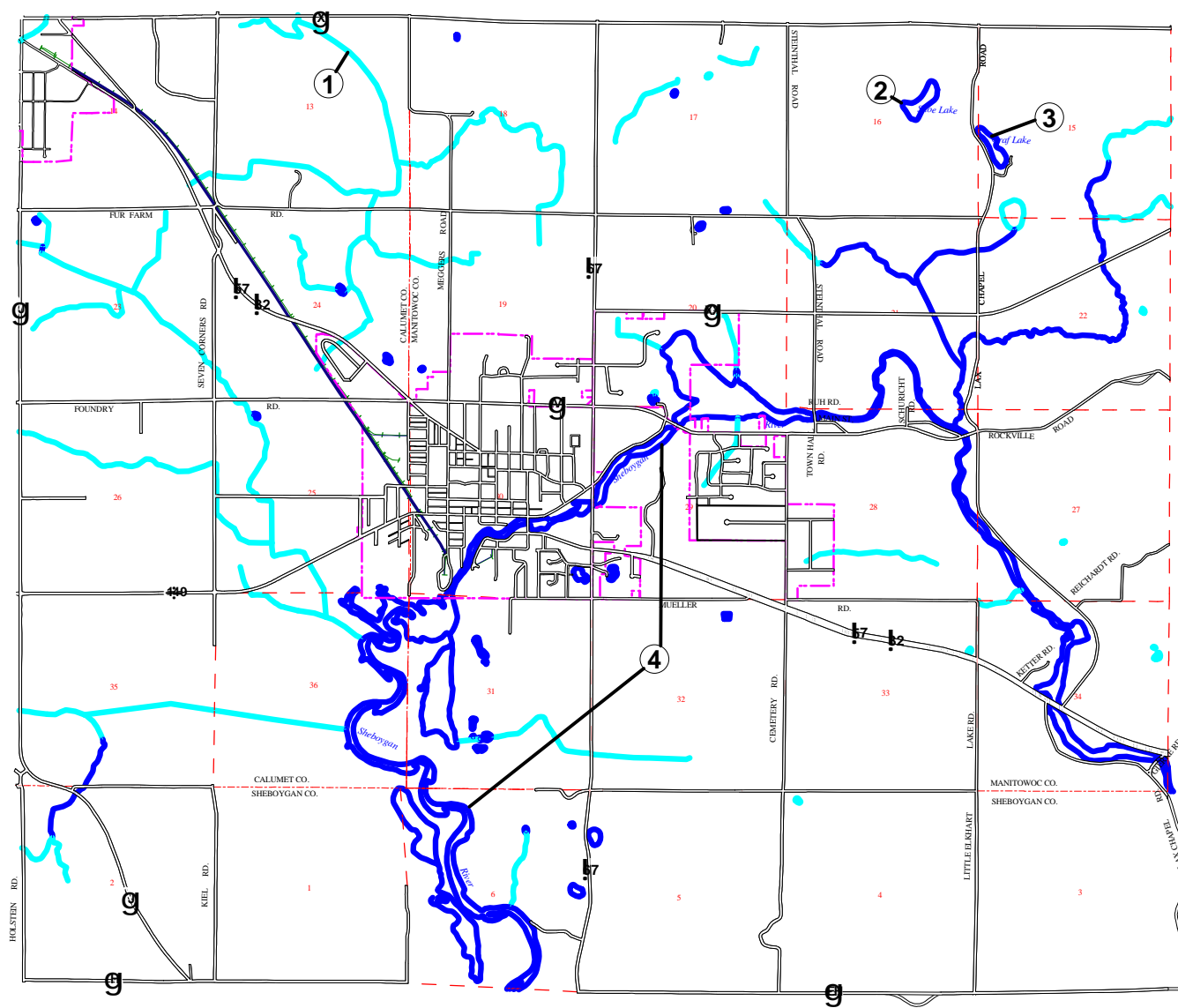
City of Kiel Planning Area

Calumet, Manitowoc &
Sheboygan Counties

- 1 - Pine Creek
- 2 - Shoe Lake
- 3 - Graf (Long) Lake
- 4 - Sheboygan River

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number



Source: WDNR, 1968, 1971; Bay-Lake
Regional Planning Commission, 2002.



Floodplains










City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

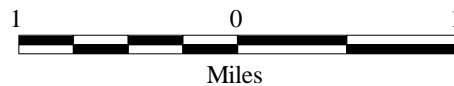
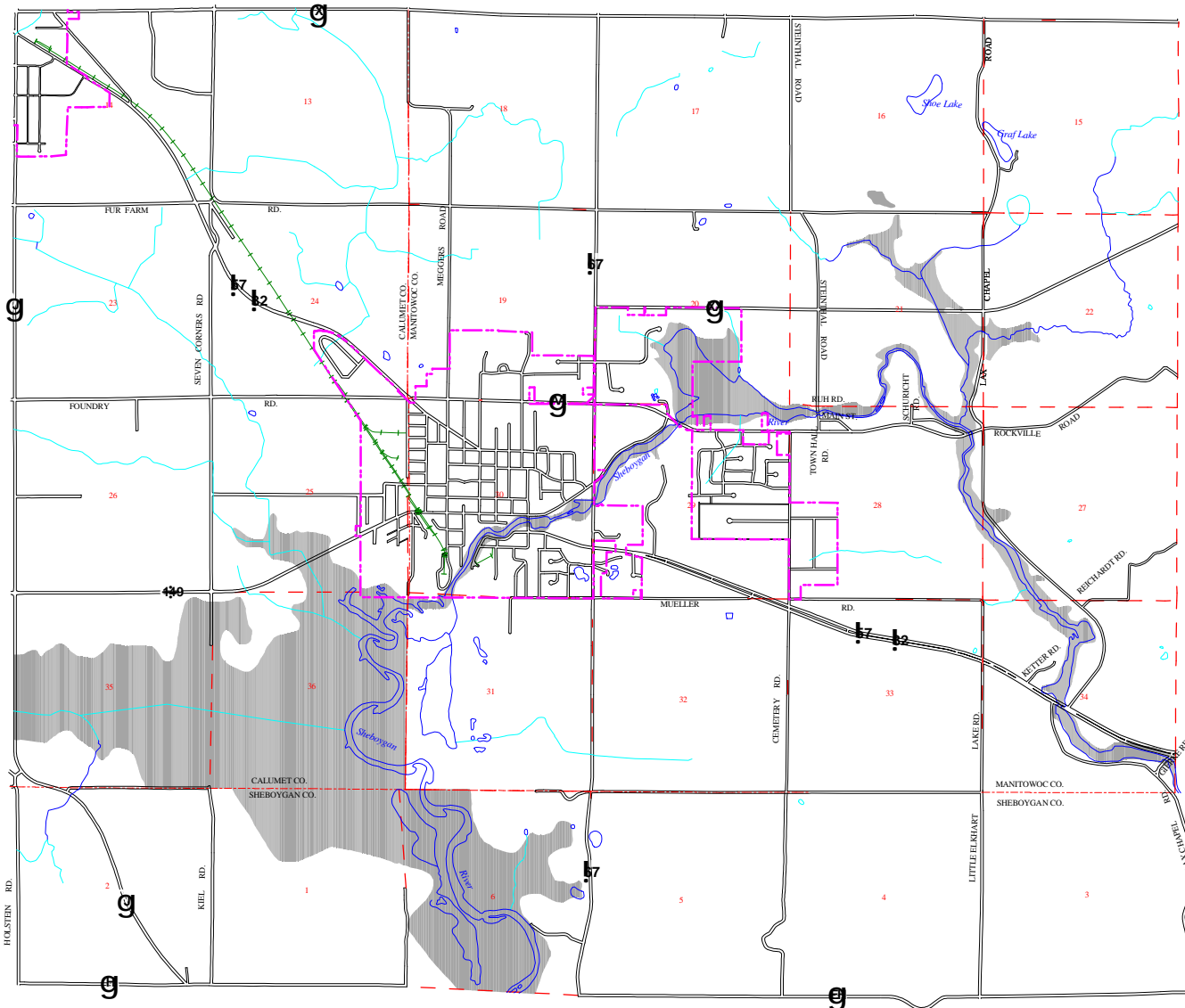
 100 - Year Floodplain*

*Kiel Marsh Wildlife Area is not included in Manitowoc County's Floodplain.

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number

Source: FEMA FIRM, 1982; Bay-Lake Regional Planning Commission, 2002.












Wetlands

City of Kiel Planning Area

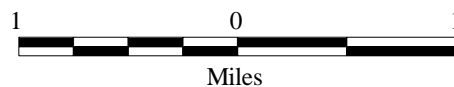
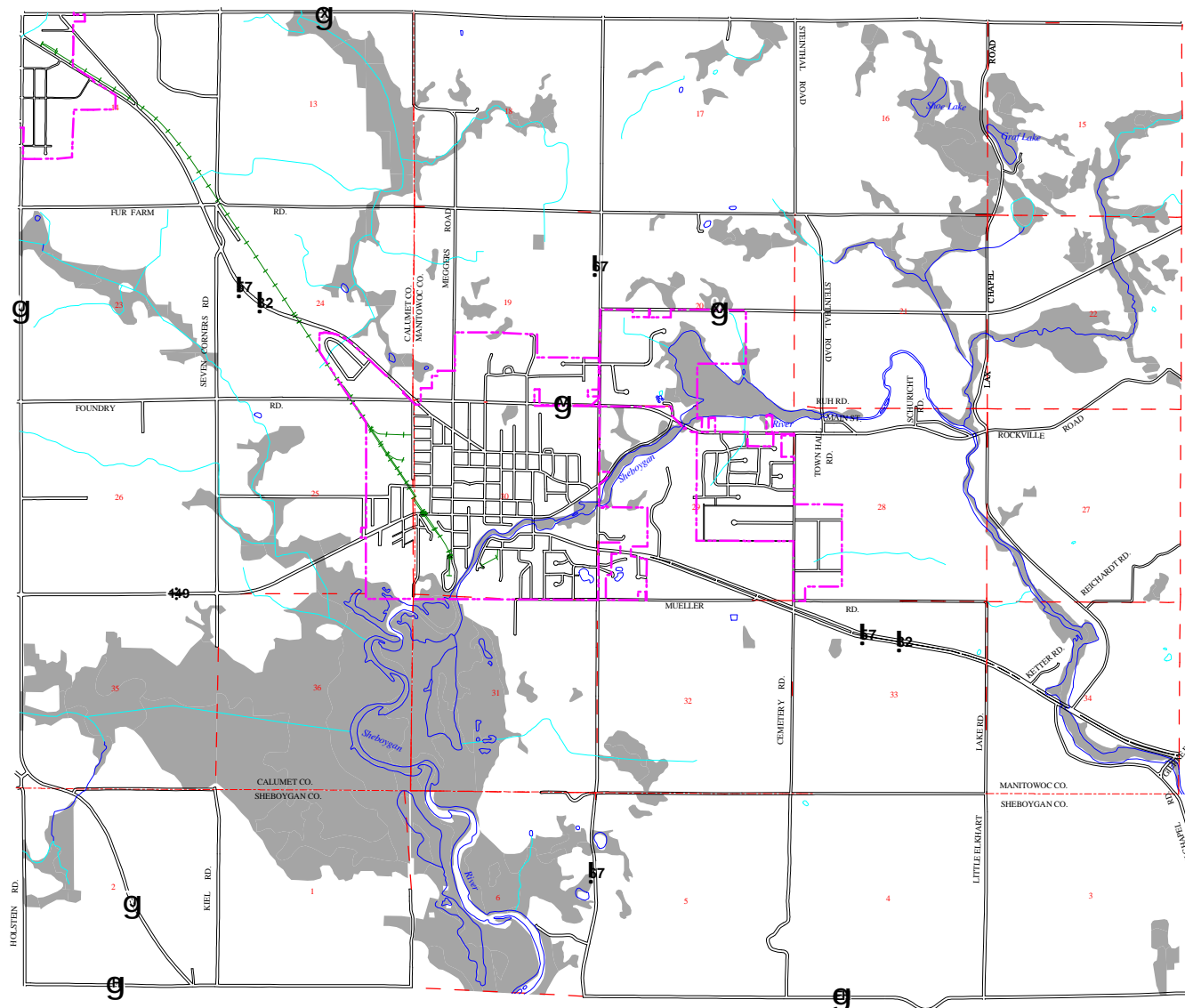
Calumet, Manitowoc & Sheboygan Counties

 WDNR Wetlands

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number

Source: WDNR, 1991; Bay-Lake Regional Planning Commission, 2002.



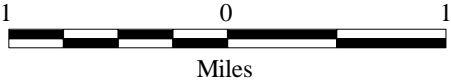
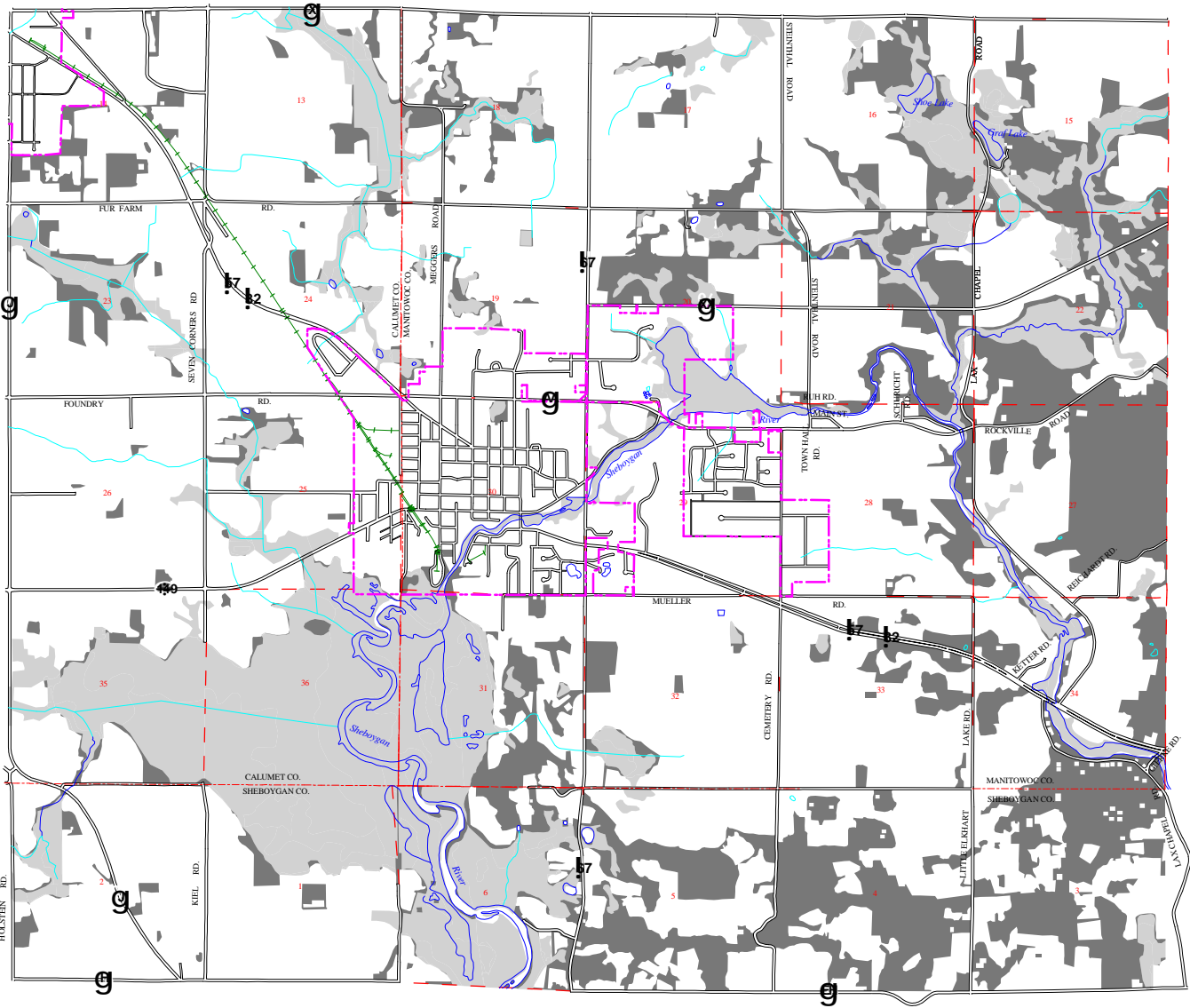
Woodlands
City of Kiel Planning Area
Calumet, Manitowoc &
Sheboygan Counties

- Lowland Woodland
- Upland Woodland

Map Features

- State Highway
- County Highway
- City Limits
- County Boundary
- Local Road
- Surface Water Features
- Railroad Corridor
- Section Line
- Section Number

Source: Bay-Lake Regional
Planning Commission, 2002.












Natural Areas

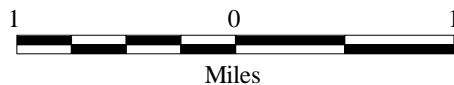
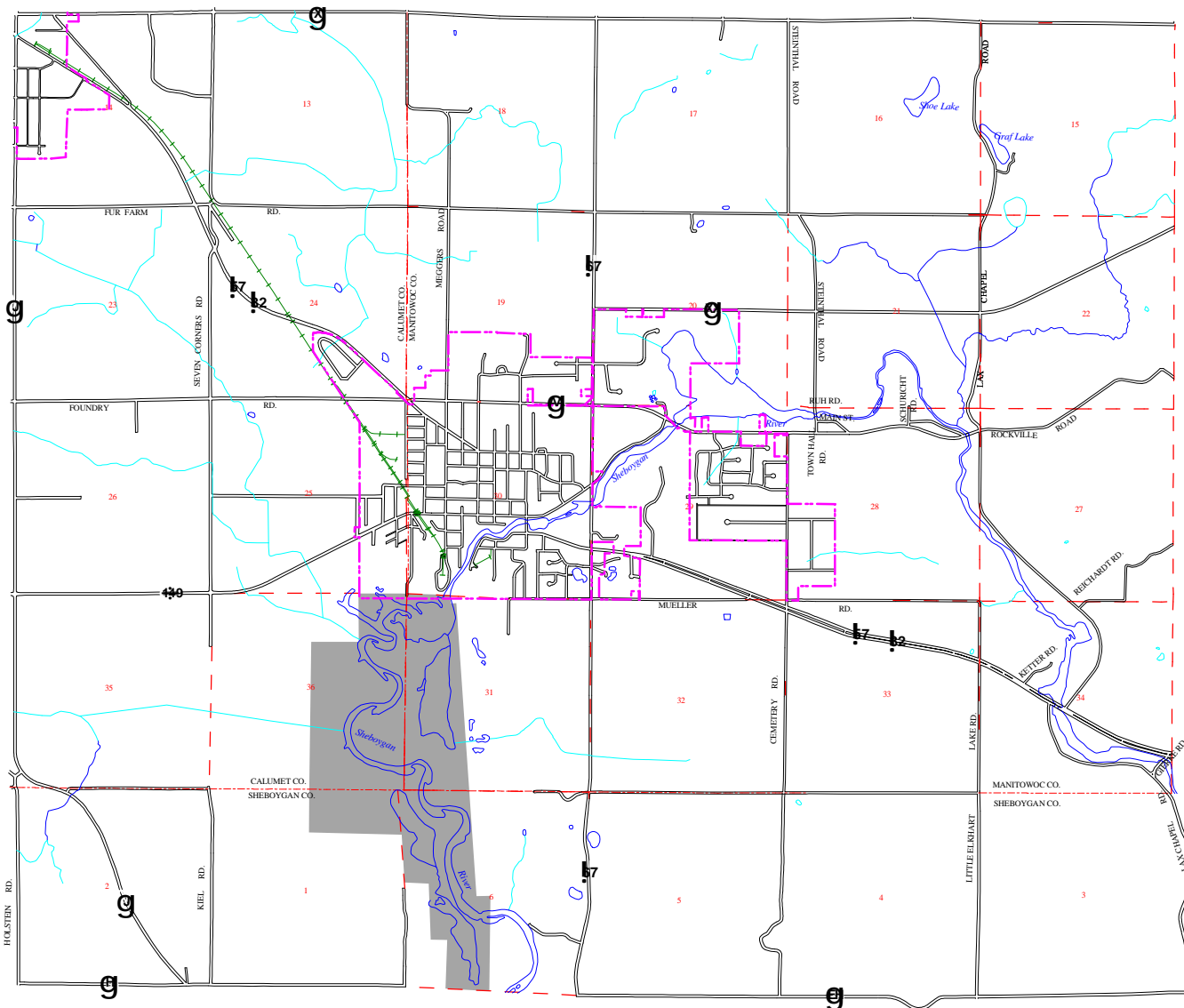
City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

 Kiel Marsh Wildlife Area

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number




Source: WDNR, 1999; Bay-Lake Regional Planning Commission, 2002.












Environmental Corridors

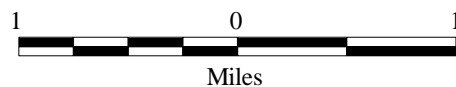
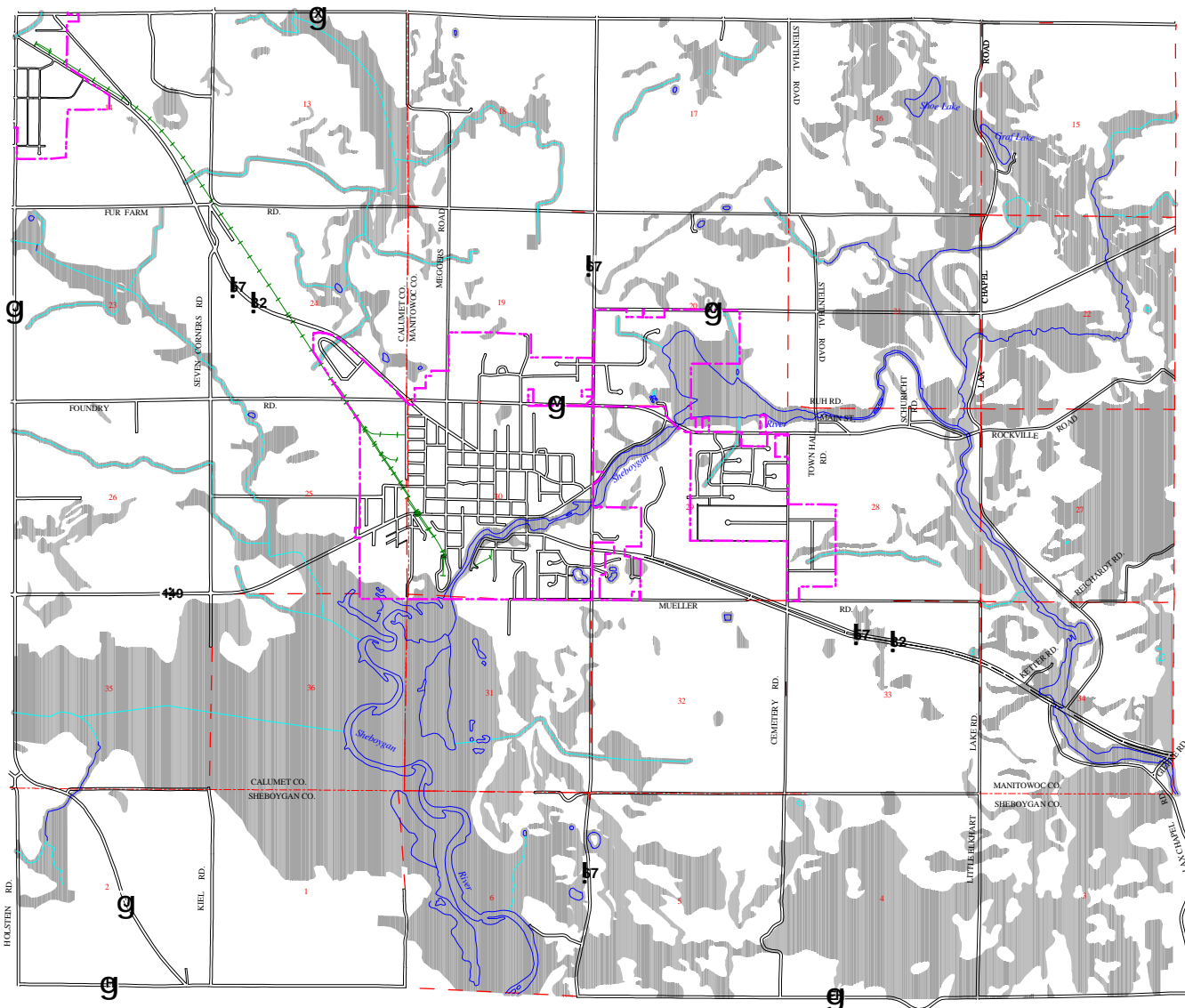
City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

-  Environmental Corridors
- WDNR Wetlands
- 100 - Year Floodplain
- Slope Greater 12 Percent
- 75 - Foot Water Setback

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number



Source: WDNR, NRCS, FEMA FIRM;
Bay-Lake Regional Planning Commission, 2002.



Chapter 3 - HOUSING AND POPULATION

INTRODUCTION

Population change is the primary component in tracking the past growth of an area as well as predicting future population trends. Population characteristics relate directly to the city's housing, educational, community and recreational facility needs, and to its future economic development. It should be noted that over time, there are fluctuations in the local and regional economy and population that generally cannot be predicted. These fluctuations and changes may greatly influence the city's growth and characteristics. This chapter will identify population and housing trends that may affect the future of the city of Kiel.

Housing includes information about the current housing stock, structural and occupancy characteristics, as well as details on projected housing demand. This section also includes a housing strategy that provides goals, objectives, and policies for future housing development within the city.

The majority of this information is based on 2000 Census information. It serves as background data to help determine such things as; how much population growth the city can expect to accommodate over the next twenty years; the condition of the housing stock and what types of housing will be needed in the future.

SUMMARY AND IMPLICATIONS

1. The city experienced a population of 3,450 persons in 2000, an 18.6 percent increase from 1990.
2. Kiel's population was projected by the WDOA in 1993 to be 3,281 persons by 2015. The WDOA projection has been exceeded and is outdated, resulting in new projections presented later in this chapter.
3. The largest age group in 2000 was between 25 and 44 years old, which is within the age group traditionally having the highest earning power.
4. The median age for the city of Kiel in 2000 was 35.9 years.

The city's population increased significantly from 1990 to 2000 and is expected to continue increasing through the planning period. An age structure shift towards the older age groups over the next several decades may lead the city to spend more on services to accommodate an aging population. Likewise, the aging population can also mean additional business opportunities. The elderly have been shown to import income into a community, living on prior savings or investments in the form of social security, private pensions, and stocks. This aging population requires basic services such as groceries, housing, and health care, but they tend to spend their incomes locally. Well planned and financed services and programs directed towards the elderly can go a long way in keeping the buying power of the retired community within the city of Kiel.

5. Overall, the city and the surrounding communities have experienced a significant increase in the number of housing units from 1990. In addition, all areas compared have had a 49 percent increase or higher from 1970 to 2000, with the exception of Manitowoc County (36.4 percent increase).

6. The average household size for the city is expected to decline over the next 20 years from 2.4 to 2.2 persons per household.
7. At approximately 2.2 persons per household, the city can expect a housing projection between 242 to 452 additional occupied housing units needed in the next 20 years.

Throughout the planning period there will be a demand for additional housing units within the city and surrounding planning area. An increased population, a demand for larger lot sizes and a trend of smaller household sizes will increase the demand for residential developments. The city will need to adequately identify areas to accommodate this change in land use while ensuring that adequate services are provided. Additional housing does not always lead to a community making money. In most cases it can be shown that housing (though most preferred in many communities) is the most costly development based on the supporting services needed to accompany it. The city will need to monitor costs of future housing on the city's budget to control future property taxes.

8. According to the 2000 Census, it was determined that 34 percent (501 structures) of the housing within the city was built prior to 1940.
9. In 2000, 19.5 percent of renters were living in "non-affordable" housing, due to their paying more than 30 percent of their incomes towards rent. This figure is down 2 percent from 1990 when 21.7 percent of renters were living in "non-affordable" housing.
10. In 1990, there was 8.1 percent of homeowners living in "non-affordable" housing. In 2000, this figure increased to 12.0 percent of homeowners that were paying more than 30 percent of their incomes towards housing payments.
11. According to the Wisconsin Department of Commerce, the median household income for the city in 1999 was \$44,239.

The housing within the city is mostly residential single family, yet many homes are over 60 years old. In addition, several renters as well as some homeowners are considered to be living in non-affordable housing. Therefore, it is likely that some residents will need additional assistance regarding loans for housing rehabilitation as well as affordable housing. The city will need to support assistance efforts as well as look into actions that promote a mix of housing choices. Because the city has sewer service in most areas a future mix in density is possible to provide for affordable housing.

The city supports the ideals of promoting housing for all residents, providing a range in housing, working towards gaining more financial assistance for its residents for rehabilitation of housing, and rental assistance by working with county, state and federal agencies.

HOUSING STRATEGY

The overall housing strategy was formulated in part from the population characteristics as well as the inventory of natural features within the planning area. The stated *Goals, Objectives, Policies*, and *Programs* will be based on the information provided within this element of the comprehensive plan.

The following stated *Goals, Objectives, Policies*, and *Programs* are based upon the information provided within this chapter of the comprehensive plan, with special attention being made to the

detailed actions and programs available to the city (identified at the end of this chapter). The city reviewed the “local” options it has in order to obtain a balanced housing initiative to be in compliance with the Office of Land Information Services (OLIS) grant requirements - in which the city accepted money to offset the costs of preparing this plan. The preferred options the city wishes to implement are integrated into several of the statements below.

Goal:

To provide for a variety of quality housing opportunities for all segments of the city’s current and future population.

Objective 1:

To develop and enforce policies and programs to assist citizens to obtain affordable, quality housing.

Policies:

1. The city should continue to apply for grants and become involved in public programs that are available to address individual residents and city housing needs.
2. Ensure that there is adequate housing for all persons in the city, including those with low to moderate income, elderly, and residents with special needs.
3. Encourage the maintenance, preservation and rehabilitation of the existing housing stock in the city.
4. Ensure that affordable housing is available to first time homebuyers and to residents that rent housing.
5. Ensure that the city’s zoning ordinance allows for, and/or encourages, the above policies.

Programs:

1. Work with federal, state, and county agencies to assist city residents in achieving home loans.
2. Work with the state, county, and BLRPC to monitor the city’s population characteristics to stay informed of changing demographics/characteristics within the city.

Objective 2:

Encourage new housing development in areas where it is needed and can be done in an environmentally conscious and cost effective way.

Policies:

1. To provide housing with adequate municipal services.
2. Direct new development to appropriate locations to minimize the visual impact on the viewsheds from public right-of-ways.

3. Carefully regulate development that has the potential to adversely affect the assessed value or livability of neighboring residential properties.
4. The construction of new homes should be regulated by adequate building codes and ordinances.
5. Encourage the development of single family homes, and adequate availability of multi-family apartments and elderly housing.
6. Future residential developments should be grouped based on density in order to minimize potential impacts.
7. Continue to expand residential development in a contiguous manner.
8. Planned residential developments should maintain the city's existing ratio of single family, multi-family, and apartment developments in order to maintain Kiel's "small town" character.
9. Explore development ideas that encourage responsible use of land and minimize potential negative impacts on natural or unique areas.
10. Utilize the zoning ordinance to protect residential uses from incompatible non-residential uses.

Program:

1. Establish a group or committee to investigate the use of regulations, and establish a set of standards/criteria in order to best develop regulations regarding the future use of development practices (i.e. conservation subdivisions, etc.). When appropriate, work with the surrounding counties and BLRPC to develop a set of ordinances for the city, designed to further these developmental practices.

POPULATION CHARACTERISTICS

Historical Population Levels

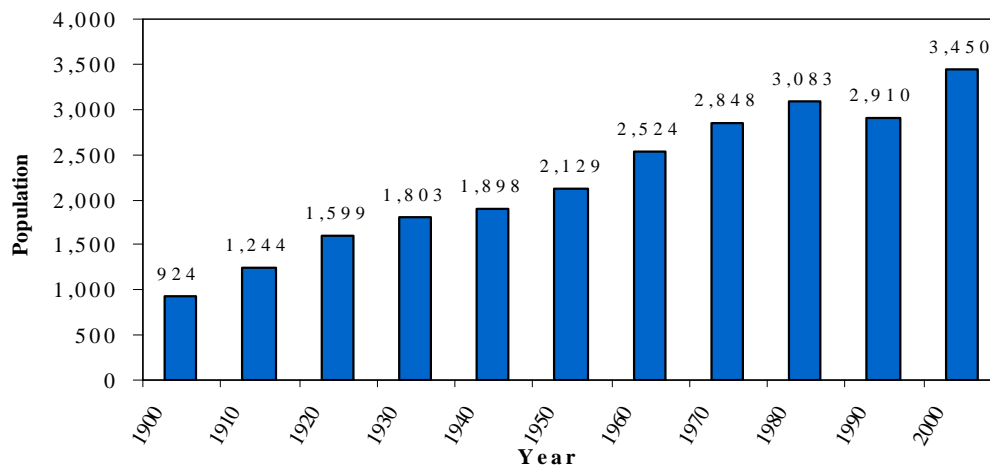
Figure 3.1 displays the moderate increases in population that the city of Kiel has experienced in the past century. The only decline in population over the past 100 years was between 1980 and 1990. According to the 2000 Census figure (3,450 persons), the city of Kiel population is at its highest ever after an increase of 19 percent from 1990. By comparison, the city of New Holstein had an increasing population until 1980, but has been declining in the last 20 years, with a current population of 3,301 persons. See Table 3.1 for population trends in the surrounding communities, plus Manitowoc and Calumet counties.

Table 3.1: Historical Population Levels, 1900-2000, City of Kiel & Selected Areas

Year	City of Kiel	City of New Holstein	Town of New Holstein	Town of Schleswig	Manitowoc County	Calumet County
1900	924	NA	NA	1,385	42,261	17,078
1910	1,244	839	NA	1,388	44,978	16,701
1920	1,599	NA	NA	1,129	51,644	17,228
1930	1,803	1,274	1,113	1,179	58,674	16,848
1940	1,898	1,502	1,156	1,170	61,617	17,618
1950	2,129	1,831	1,159	1,231	67,159	18,840
1960	2,524	2,401	1,229	1,220	75,215	22,268
1970	2,848	3,012	1,513	1,542	82,294	27,604
1980	3,083	3,412	1,527	1,633	82,918	30,867
1990	2,910	3,342	1,406	1,641	80,421	34,291
2000	3,450	3,301	1,457	1,900	82,887	40,631

Source: U.S. Bureau of the Census, General Population Characteristics 1840-1970, Bay-Lake Regional Planning Commission, December 1975; Census 2000; and Bay-Lake Regional Planning Commission, 2001.

Figure 3.1: Historic Population Levels, 1900-2000, City of Kiel



Source: U.S. Bureau of the Census, General Population Characteristics 1840-1970, Bay-Lake Regional Planning Commission, December 1975; Census 2000; and Bay-Lake Regional Planning Commission, 2001.

Population Trends

The city experienced a net gain in population of 367 persons over the twenty-year period from 1980 to 2000, resulting in a population of 3,450 persons. However, from 1980 to 1990, the city of Kiel decreased by 173 persons or 5.6 percent, and then increased by 540 individuals from 1990 to 2000, a 18.6 percent increase, the largest gain ever since 1900. (Table 3.1).

In 1993, the Wisconsin Department of Administration's (WDOA) Demographic Services Center prepared baseline population projections to the year 2015 for the communities and counties of the state, utilizing a projection formula that calculates the annual population change over three varying time spans. From this formula, the WDOA predicted a decline in population resulting in 3,281 persons for the city of Kiel in 2015, which is a decrease of 169 persons over a 15 year timeframe. However, the 2000 Census population (3,450 persons) actually exceeded what was projected and estimated as the 2000 population by WDOA. Due to the discrepancies between the WDOA projections and 2000 Census, an alternative projection methodology will be necessary to

determine a year 2020 population for the city. The new population projections created by Bay-Lake Regional Planning can be found later within this chapter.

Table 3.2: Population Trends, 1970-2015, City of Kiel & Selected Areas

Year	Geographic Location							
	City of Kiel	City of New Holstein	Town of New Holstein	Town of Schleswig	Manitowoc County	Calumet County	Bay-Lake Region	State of Wisconsin
Actual Population								
1970	2,848	3,012	1,513	1,542	82,294	27,604	440,926	4,417,731
1980	3,083	3,412	1,527	1,633	82,918	30,867	476,134	4,705,767
1990	2,910	3,342	1,406	1,641	80,421	34,291	498,824	4,891,769
2000	3,450	3,301	1,457	1,900	82,887	40,631	554,565	5,363,675
WDOA Population Projections								
2005	3,186	3,235	1,305	1,669	84,211	37,114	539,948	5,409,536
2010	3,235	3,214	1,280	1,668	84,625	37,795	546,261	5,512,313
2015	3,281	3,173	1,242	1,660	84,770	38,459	550,833	5,603,528
Number Change								
1970-1980	235	400	14	91	624	3,263	35,208	288,036
1980-1990	-173	-70	-121	8	-2,497	3,424	22,690	186,002
1990-2000	540	-41	51	259	2,466	6,340	55,741	471,906
Percent Change								
1970-1980	8.3	13.3	0.9	5.9	0.8	11.8	8.0	6.5
1980-1990	-5.6	-2.1	-7.9	0.5	-3.0	11.1	4.8	4.0
1990-2000	18.6	-1.2	3.6	15.8	3.1	18.5	11.2	9.6

Source: U.S. Bureau of the Census, Census of Population and Housing, 1970-2000; Wisconsin Department of Administration, Official Population Estimates and Projections, for years cited; and Bay-Lake Regional Planning Commission, 2001.

Seasonal Population

The estimated seasonal population was found by multiplying the number of seasonal housing units by the average number of persons per household (Table 3.3). In 2000, the city of Kiel had 6 seasonal housing units, creating an estimated seasonal population of 15 persons, less than 1 percent of the city's population.

Table 3.3: Estimated Seasonal Population, 2000, City of Kiel & Selected Areas

	Geographic Location					
	City of Kiel	City of New Holstein	Town of New Holstein	Town of Schleswig	Manitowoc County	Calumet County
Population	3,450	3,301	1,457	1,900	80,421	40,631
Persons Per Household	2.42	2.36	2.7	2.73	2.62	2.7
Total Housing Units	1,498	1,394	558	871	31,843	15,758
Total Seasonal Housing Units*	6	3	3	156	557	287
Percent of Housing Units Seasonal	0.4	0.2	0.5	17.9	1.7	1.8
Estimated Seasonal Population**	15	7	8	426	1,459	775
Percent Population Seasonal	0.4	0.2	0.6	22.4	1.8	1.9

*Seasonal housing includes seasonal, recreational, or occasional use units, does not include other vacant

**Estimated Seasonal Population = Seasonal Housing Units x Persons Per Household

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing; and Bay-Lake Regional Planning Commission, 2001.

Revised Population Projections

Since the WDOA projections do not go beyond the year 2015 to include the 20-year planning period, the Commission has prepared alternative population projections to determine an approximate growth rate for the city of Kiel.

The projections were found by using a ratio methodology, termed share-of-the-county, to derive county projections to the city level. The limitations of population projections should be recognized. Population projections are not predictions, rather they extend past growth trends into the future and their reliability depends on the continuation of these past growth trends. Smaller communities are also subject to more error because even minor changes in the community can result in significant changes in population projection estimates.

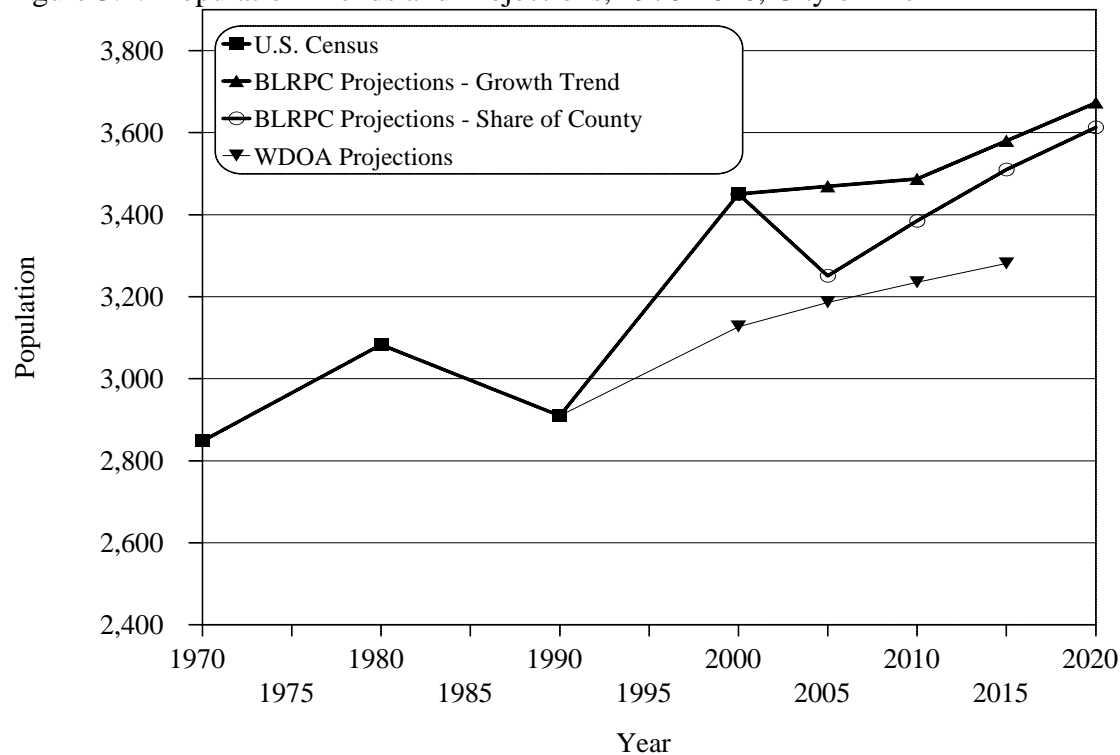
According to the Bay-Lake Regional Planning Commission's (BLRPC) share-of-the-county projections, the projected year 2005 population for the city of Kiel is 3,251 persons. The projected 2010 population is 3,385 persons, projected year 2015 is 3,510 persons, and the projected year 2020 population is 3,613 persons. Therefore, the city of Kiel's 2000 population will increase by 163 people, or 4.7 percent in the next 20 years. The BLRPC share-of-the-county projection creates the "Low Growth" scenario for the city. It should be noted that these projections are based on past trends, in which the population of the counties and city were at times declining. Small changes in the community or the region in the future may cause significant changes to these projections.

A "High Growth" projection was developed by using the census figures from 1970 to 2000 and creating a growth trend series to the year 2020. This method identified a projected year 2005 population of 3,469 persons, a projected year 2010 population of 3,487 persons, a estimated 2015 population of 3,580 persons, and a projected year 2020 population of 3,673 persons. According to this "High Growth" projection, the city of Kiel's 2000 population will increase by 223 people, or 6.5 percent by the year 2020.

Figure 3.2 displays the actual U.S. Census counts, WDOA projections, and BLRPC projections - Share of County ("Low Growth") and Growth Trend series ("High Growth").

Since the projections are based primarily on past and current population trends; they should be considered only as one of many tools used to help anticipate and predict future needs within the city. Population levels are subject to the city's geophysical conditions, environmental concerns, comprehensive land use plans, zoning restrictions, taxation, annexation, and other political policies that influence business and personal location decisions.

Figure 3.2: Population Trends and Projections, 1970-2020, City of Kiel



Source: U.S. Bureau of the Census, 1970-2000 Census of Population and Housing; Wisconsin Department of Administration, Official Municipal Population Projections, 1995-2015; Wisconsin Department of Administration, Official Population Estimates, 1991-2000; and Bay-Lake Regional Planning Commission, 2001.

Population by Age and Sex

From 1970 to 2000, the city's population consisted of slightly more females than males. According to the 2000 Census, there were 4 percent more females (1,799) than males (1,651) in the city of Kiel (Table 3.4). The city's age of population breakdown has slightly fluctuated over the last couple decades (Table 3.4 and Figure 3.3). In 1970, 46.5 percent of the city's population was under the age of 25 years. According to the 1980 Census, this age group decreased to 41.7 percent, and by 1990 it decreased to 35.6. However, according to the 2000 Census, 34.2 percent of the population was under the age of 25, indicating very little change from 1990. Additionally, the percent of elderly (persons over 55 years old) increased from 22.0 percent in 1970 to 24.6 percent in 1980, to 26.6 percent in 1990, and then decreased to 23.6 percent in 2000. Overall, the city's population had been aging from 1970 to 1990, but few differences occurred between 1990 and 2000, with little change in the percent of individuals under the age of 25, along with a 3.0 percent decrease in the number of elderly persons in the city.

Decade Population Pyramids

Figure 3.3 represents the distribution of the age and sex of the population in the city of Kiel for 1980, 1990 and 2000. The pyramids show how the workforce population and elderly population increase from 1980 to 2000. Also, from 1980 to 2000 the number of females has been consistently higher than the number of males in the city Kiel.

Table 3.4: Male and Female Distribution by Age and Sex, 1980-2000, City of Kiel

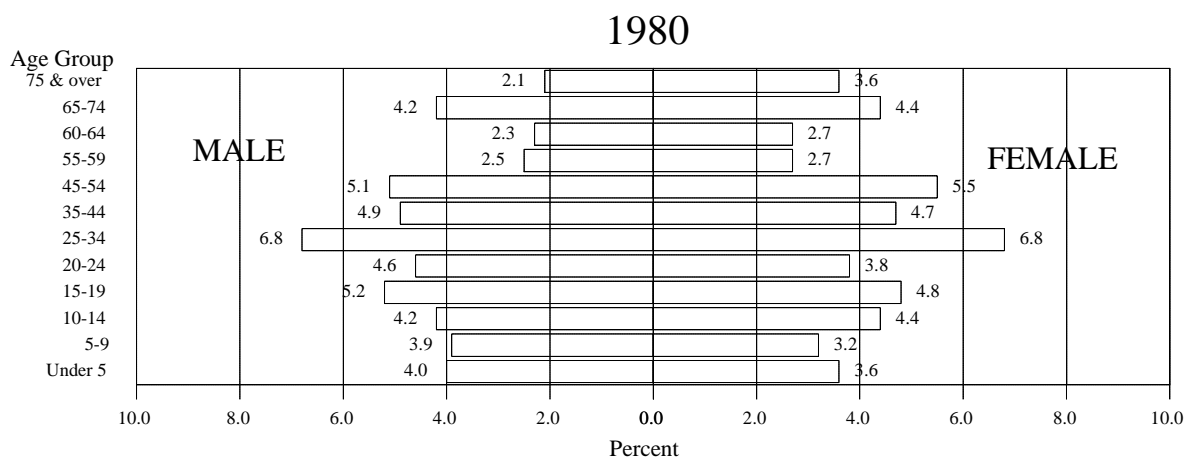
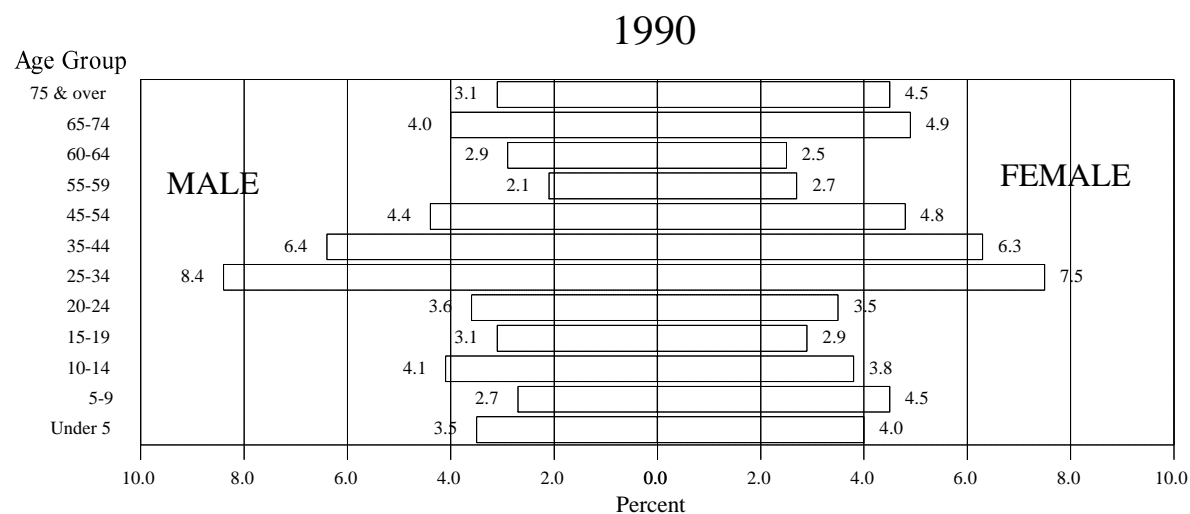
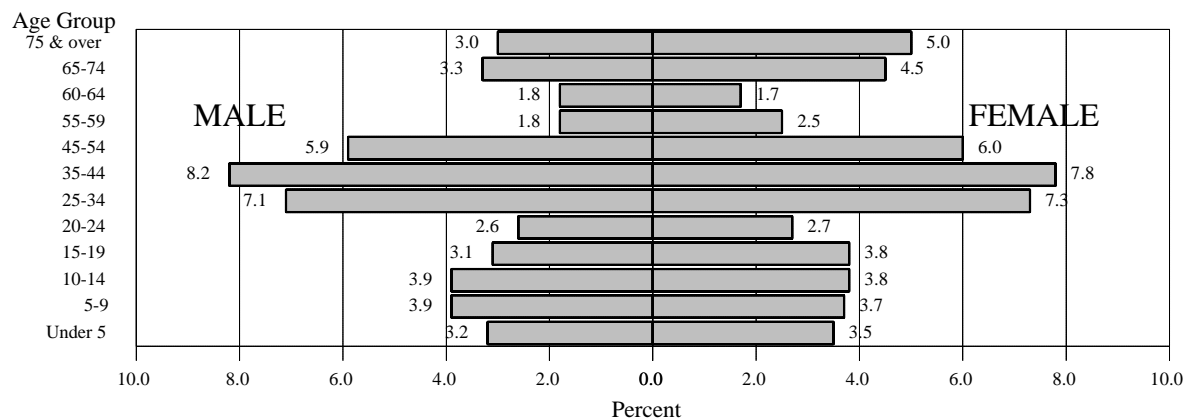
1980								
Age	Male			Female			Total	
	Count	Percent		Count	Percent		Count	Percent
		Male	Total		Female	Total		
75 & over	65	4.2	2.1	110	7.1	3.6	175	5.7
65-74	131	8.5	4.2	135	8.7	4.4	266	8.6
60-64	72	4.7	2.3	84	5.4	2.7	156	5.1
55-59	78	5.1	2.5	82	5.3	2.7	160	5.2
45-54	157	10.2	5.1	170	11.0	5.5	327	10.6
35-44	151	9.8	4.9	144	9.3	4.7	295	9.6
25-34	210	13.7	6.8	209	13.5	6.8	419	13.6
20-24	141	9.2	4.6	117	7.6	3.8	258	8.4
15-19	160	10.4	5.2	148	9.6	4.8	308	10.0
10-14	128	8.3	4.2	136	8.8	4.4	264	8.6
5-9	120	7.8	3.9	100	6.5	3.2	220	7.1
under 5	124	8.1	4.0	111	7.2	3.6	235	7.6
TOTAL	1,537	100.0	49.9	1,546	100.0	50.1	3,083	100.0

1990								
Age	Male			Female			Total	
	Count	Percent		Count	Percent		Count	Percent
		Male	Total		Female	Total		
75 & over	90	6.4	3.1	130	8.6	4.5	220	7.6
65-74	115	8.2	4.0	142	9.4	4.9	257	8.8
60-64	84	6.0	2.9	72	4.8	2.5	156	5.4
55-59	61	4.4	2.1	80	5.3	2.7	141	4.8
45-54	127	9.1	4.4	141	9.4	4.8	268	9.2
35-44	185	13.2	6.4	184	12.2	6.3	369	12.7
25-34	245	17.5	8.4	218	14.5	7.5	463	15.9
20-24	104	7.4	3.6	101	6.7	3.5	205	7.0
15-19	91	6.5	3.1	84	5.6	2.9	175	6.0
10-14	118	8.4	4.1	111	7.4	3.8	229	7.9
5-9	80	5.7	2.7	130	8.6	4.5	210	7.2
under 5	102	7.3	3.5	115	7.6	4.0	217	7.5
TOTAL	1,402	100.0	48.2	1,508	100.0	51.8	2,910	100.0

2000								
Age	Male			Female			Total	
	Count	Percent		Count	Percent		Count	Percent
		Male	Total		Female	Total		
75 & over	104	6.3	3.0	174	9.7	5.0	278	8.1
65-74	114	6.9	3.3	154	8.6	4.5	268	7.8
60-64	63	3.8	1.8	58	3.2	1.7	121	3.5
55-59	61	3.7	1.8	87	4.8	2.5	148	4.3
45-54	204	12.4	5.9	206	11.5	6.0	410	11.9
35-44	282	17.1	8.2	268	14.9	7.8	550	15.9
25-34	244	14.8	7.1	252	14.0	7.3	496	14.4
20-24	90	5.5	2.6	92	5.1	2.7	182	5.3
15-19	107	6.5	3.1	131	7.3	3.8	238	6.9
10-14	136	8.2	3.9	130	7.2	3.8	266	7.7
5-9	134	8.1	3.9	126	7.0	3.7	260	7.5
under 5	112	6.8	3.2	121	6.7	3.5	233	6.8
TOTAL	1,651	100.0	47.9	1,799	100.0	52.1	3,450	100.0

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Series 100, Table 18; and 1990 Census of Population and Housing, Series 100, Table 18; and 2000 Census of Population and Housing, SF-1; and Bay-Lake Regional Planning Commission, 2002.

Figure 3.3: Population Pyramids, 1980-2000, City of Kiel
2000



Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Series 100, Table 18; and 1990 Census of Population and Housing, Series 100, Table 18; and 2000 Census of Population and Housing, SF-1; and Bay-Lake Regional Planning Commission, 2002.

School Age, Working Age and Retirement Age Groups

The population of the city of Kiel is divided into four age groups: the school age group (5-17), the working age group (16+), the voting age group (18+), and those of retirement age (65+). The working age group accounts for 76.6 percent of the city's total population (Table 3.5). When considering an average retirement age of 65 years and subtracting that group from the working age group, the figure drops to 60.8 percent. In 2000, 19.6 percent of the total population was school age. This figure compares with 19.7 percent for Manitowoc County, 21.6 percent for Calumet County and 19.1 percent for the State.

Table 3.5: Population by Age Groups and Sex, 2000, City of Kiel & Selected Areas

Age Groups	City of Kiel				Manitowoc Co.	Calumet Co.	Wisconsin
	Total	Male	Female	Percent	Percent	Percent	Percent
School Age							
5-11	360	184	176	10.4	10.0	11.4	10.1
12-14	166	86	80	4.8	4.8	5.1	4.5
15-17	151	65	86	4.4	4.9	5.1	4.5
Working and Voting Age							
16+	2,642	1,245	1,397	76.6	77.8	74.7	77.5
16-64	2,096	1,027	1,069	60.8	62.1	64.0	64.4
18+	2,540	1,204	1,336	73.6	74.5	71.4	74.5
18-64	1,994	986	1,008	57.8	58.9	60.6	61.4
Retirement Age							
65+	546	218	328	15.8	15.7	10.8	13.1
Total Population	3,450	1,651	1,799				

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing SF-1; and Bay-Lake Regional Planning Commission, 2002.

The city's population distribution among the age groups is very similar to Manitowoc and Calumet counties as well as the state. However, the city and the county has a higher percentage (16 percent) of retirement age people than do Calumet County or the State. It is expected that the percentage of elderly will increase through the planning period and beyond. This will result in a greater demand for elderly housing, care facilities, and other services for the elderly including transportation and facilities to accommodate retirees.

Median Age

The median age for all areas has been increasing for the period 1970 to 2000. During the period from 1990 to 2000, the city of Kiel and all communities compared had increases in their median age (Table 3.6). Over the course of the past several decades, the city's median age has risen from 29.0 (Manitowoc County portion) and 23.3 (Calumet County portion) in 1970, to 35.9 years (entire city) in 2000.

Table 3.6: Median Age, 1970-2000, City of Kiel & Selected Areas

Geographic Area	1970	1980	1990	2000
City of Kiel (Manitowoc)	29.0	32.1	35.6	35.9
City of Kiel (Calumet)	23.3	23.2	28.6	35.9
City of New Holstein	26.9	31.0	36.7	41.0
Town of New Holstein	19.6	25.2	32.1	38.5
Town of Schleswig	24.5	28.2	33.9	38.8
Manitowoc County	27.8	30.2	34.6	38.3
Calumet County	23.2	27.2	31.3	35.2
Bay-Lake Region	29.6	30.7	34.6	38.6
State of Wisconsin	27.2	29.4	32.9	36.0

Source: U.S. Bureau of the Census, Census of Population, *General Population Characteristics*, Wisconsin, 1970 Tables 33,35, 1980 Census, Table 14, 1990 Census, Table 1; 2000 Census; and Bay-Lake Regional Planning Commission, 2001.

HOUSING INVENTORY

Total Housing Unit Levels by Decade

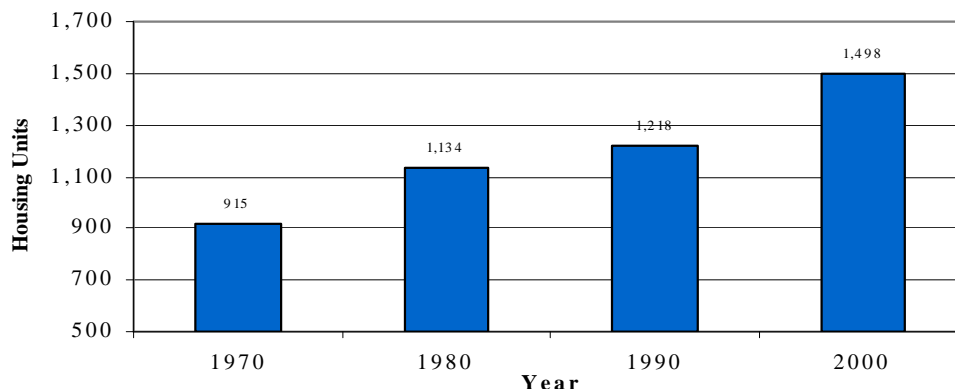
The total number of housing units in the city of Kiel in 2000 was 1,498 units (Table 3.7 and Figure 3.4). This was an increase of 583 housing units since 1970, or a 63.7 percent increase. Kiel has experienced increases in its total number of housing units from 1970 to 2000. From 1990 to 2000, the city of Kiel experienced the second largest increase in housing units in the last three decades, with an increase of 280 housing units (23 percent). These units are not necessarily all new housing units, the increase also incorporates those units that existed on lands that the city annexed within the last 10 years.

Table 3.7: Total Housing Units, 1970-2000, City of Kiel & Selected Areas

Area	Year				Percent Change			
	1970	1980	1990	2000	1970-80	1980-90	1990-2000	1970-2000
City of Kiel	915	1,134	1,218	1,498	23.9	7.4	23.0	63.7
City of New Holstein	875	1,121	1,239	1,394	28.1	10.5	12.5	59.3
Town of New Holstein	358	447	466	558	24.9	4.3	19.7	55.9
Town of Schleswig	584	709	779	871	21.4	9.9	11.8	49.1
Manitowoc County	25,411	30,140	31,843	34,651	18.6	5.7	8.8	36.4
Calumet County	7,630	10,428	12,465	15,758	36.7	19.5	26.4	106.5
Bay-Lake Region	148,035	194,960	222,116	248,916	31.7	13.9	12.1	68.1
Wisconsin	1,472,466	1,863,897	2,055,774	2,321,144	26.6	10.3	12.9	57.6

Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF1A; 2000 Census of Population and Housing; and Bay-Lake Regional Planning Commission, 2001.

Figure 3.4: Historic Housing Unit Levels, 1970-2000, City of Kiel



Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF 1A; State of Wisconsin Demographic Services Center, Annual Housing Unit Surveys, July 18, 2000; Table DP-1, Profile of General Demographics: 2000; and Bay-Lake Regional Planning Commission, 2001.

Historic and Projected Household Size

According to Wisconsin Department of Administration projections for the city of Kiel and Calumet and Manitowoc Counties, household size is projected to decrease throughout the planning period. The number of persons per household in the city of Kiel will consistently decrease during the planning period from 2.4 to 2.2 (Table 3.8). The number of persons per household in Manitowoc and Calumet counties will also decrease during the planning period, from 2.6 to 2.3, and from 2.9 to 2.4, respectively (Table 3.9).

Table 3.8: Persons per Household Projections, 1990-2020, City of Kiel & Selected Areas

Geographic Area	Planning Year					
	1990	2000	2005	2010	2015	2020
City of Kiel	3.1	2.4	2.4	2.3	2.3	2.2
Manitowoc County	2.6	2.5	2.5	2.4	2.4	2.3
Calumet County	2.9	2.7	2.7	2.6	2.5	2.4

Source: WDOA, Wisconsin Household Projections by Household Type, 1990-2015, December 1993; and Bay-Lake Regional Planning Commission, 2001.

Table 3.9: Household Projections by Household Type, 1990-2015, Manitowoc & Calumet Counties

Characteristics	Planning Year									
	1990		2000		2005		2010		2015	
	Manitowoc	Calumet	Manitowoc	Calumet	Manitowoc	Calumet	Manitowoc	Calumet	Manitowoc	Calumet
Population	80,421	34,291	83,680	36,523	84,211	37,114	84,625	37,795	84,770	38,459
Persons Per Household	2.62	2.89	2.54	2.74	2.48	2.65	2.43	2.57	2.38	2.51
Households	30,112	11,772	30,114	13,184	30,115	13,849	30,116	14,546	30,117	15,144
Family Households (families)	20,757	9,269	22,338	10,398	23,022	10,897	23,653	11,420	24,064	11,842
Married-couple Family	18,653	8,163	20,232	9,165	20,915	9,627	21,545	10,115	21,955	10,503
Female Householder	2,104	786	2,106	875	2,107	897	2,108	916	2,109	938
Nonfamily Households	8,549	2,503	8,940	2,786	9,154	2,952	9,395	3,126	9,681	3,302
Householder Living Alone	7,495	2,093	7,875	2,375	8,072	2,514	8,320	2,674	8,637	2,858
Age 65 and over	3,814	1,002	4,018	1,178	4,028	1,235	4,158	2,066	4,489	1,480

Source: Wisconsin Department of Administration, Household Projections by Household Type 1990-2015, December 1993; and Official Municipal Population Projections, 1990-2015; and Bay-Lake Regional Planning Commission.

Projected Occupied Housing Units & Total Housing Units

In formulating a “best guess” for the future residential needs of the community, three methods were used in order to determine the most likely housing projection to 2020. The following are three methods that were used to estimate the future housing unit demand within the city. The year 2000 “occupied housing” count of 1,425 units was used as a base figure as was the 2000 count for “total housing” units of 1,498.

Method One:

Using the census “occupied” housing counts from 1970 to 2000, a “*growth trend*” was created to the year 2020. This created a housing unit need projection that indicated that by 2020 the city of Kiel would have 1,877 occupied housing units, or an increase of **452** occupied housing units from the 2000 Census (Figure 3.5).

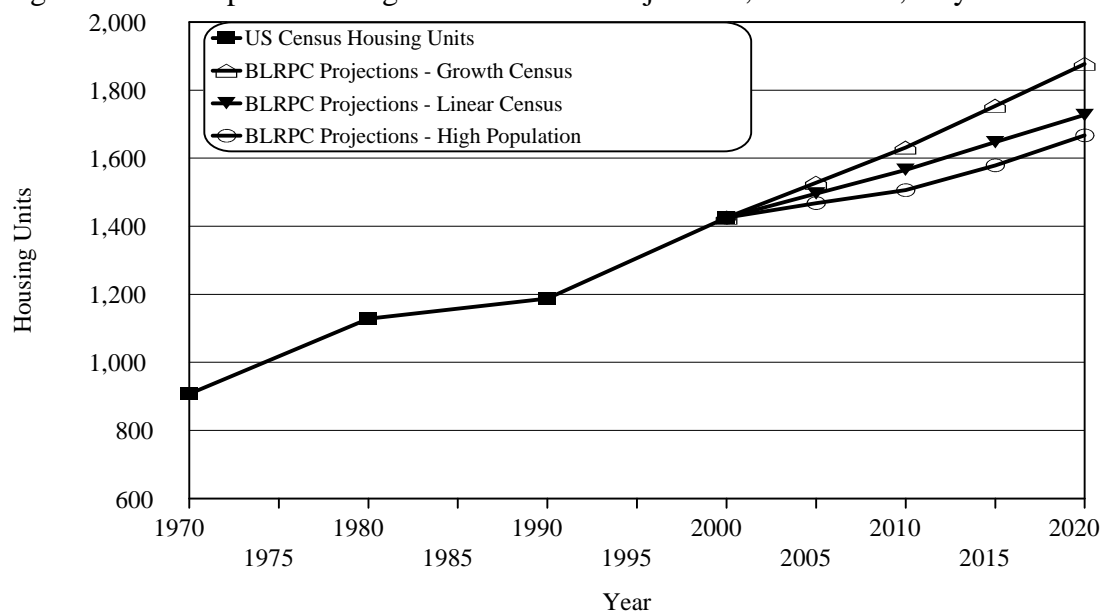
Method Two:

A “*linear trend*” to the year 2020 was also created utilizing the census “occupied” housing counts from 1970 to 2000. This created a housing unit need projection, which indicated that by 2020 the city of Kiel would have 1,727 total occupied housing units, or an increase of **302** occupied housing units.

Method Three:

By using the “High” population projection to 2020, and the projected Persons Per Household number to 2020, one can predict another range in the number of housing units needed by 2020. The High population projection, which shows a gain of 223 persons from 2000 to 2020, would equal an increase in housing demand of **242** units (or 1,667 occupied housing units) for permanent residents.

Figure 3.5: Occupied Housing Unit Trends & Projections, 1970-2020, City of Kiel



Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF 1A; State of Wisconsin Demographic Services Center, Annual Housing Unit Surveys, July 18, 2000; and Bay-Lake Regional Planning Commission, 2001.

Housing Projection Selection

The housing demand would best be reflective of a range from between 242 new housing units and 452 new housing units. The low end of 242 will best accommodate the projected population, yet the high of 452 will best reflect the recent activity that has occurred within the city over the last ten years. However, the linear projection of 302 units will be used for the city's planning purposes.

Housing Types - Units in Structure

In 2000, the majority of housing types in the city of Kiel and all other areas compared, were one unit, detached structures (Table 3.10). Two unit dwellings is the second greatest housing type for the city and other areas compared with the exception of the towns of Schleswig and New Holstein where mobile homes was the second highest type of housing. The city of Kiel had a larger percentage of 2-unit housing (15.4 percent) than any area compared in 2000.

Table 3.10: Units in Structure, 2000, City of Kiel & Selected Areas*

Units	City of Kiel		City of New Holstein		Town of New Holstein		Town of Schleswig		Manitowoc County		Calumet County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1 unit, detached	934	62.9	1010	71.7	434	78.1	748	85.6	24,890	71.8	11,988	76.1
1 unit, attached	55	3.7	50	3.5	8	1.4	11	1.3	683	2.0	479	3.0
2 units	229	15.4	128	9.1	20	3.6	19	2.2	3,831	11.1	998	6.3
3 or 4 units	90	6.1	60	4.3	6	1.1	4	0.5	1,083	3.1	243	1.5
5 to 9 units	43	2.9	74	5.3	8	1.4	7	0.8	830	2.4	631	4.0
10 to 19 units	23	1.5	61	4.3	0	0.0	0	0.0	684	2.0	540	3.4
20 or more units	39	2.6	24	1.7	0	0.0	0	0.0	1,259	3.6	197	1.3
Mobile home	72	4.8	2	0.1	80	14.4	85	9.7	1,383	4.0	680	4.3
Boat, RV, van, etc.	0	0.0	0	0.0	0	0.0	0	0.0	8	0.0	2	0.0
Total	1,485	100.0	1409	100.0	556	100.0	874	100.0	34,651	100.0	15,758	100.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-4; and Bay-Lake Regional Planning Commission, 2002.

* Data is based on a sample.

Housing Occupancy and Tenure

The city of Kiel had approximately 6 units, out of a total of 1,498 housing units that are used for seasonal, recreational or occasional use. The city of Kiel also had 67 other vacant housing units in 2000. The other areas compared had a low percentage of seasonal housing as well, with the exception of the town of Schleswig where 17.9 percent of the housing is listed as seasonal.

Only 4.9 percent of the total housing units in Kiel were vacant in 2000 (Table 3.11). The remaining units were occupied by owners (70.0 percent) and renters (25.2 percent). For the surrounding communities and Manitowoc and Calumet counties, the majority of housing units were owner occupied. The cities of Kiel and New Holstein both had the greatest percentage of its total housing units as renter occupied than any area compared (25.2 percent), except for the state that had 28.4 percent.

Table 3.11: Housing Occupancy and Tenure, 2000, City of Kiel & Selected Areas

Units	City of Kiel		City of New Holstein		Town of New Holstein		Town of Schleswig		Manitowoc County		Calumet County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Occupied	1,425	95.1	1,329	95.3	539	96.6	697	80.0	32,721	94.4	14,910	94.6
Owner	1,048	70.0	978	70.2	491	88.0	628	72.1	24,856	71.7	11,994	76.1
Renter	377	25.2	351	25.2	48	8.6	69	7.9	7,865	22.7	2,916	18.5
Vacant	73	4.9	65	4.7	19	3.4	174	20.0	1,930	5.6	848	5.4
Seasonal, Recreational, Occasional Use	6	0.4	3	0.2	3	0.5	156	17.9	518	1.5	287	1.8
Other	67	4.5	62	4.4	16	2.9	18	2.1	1,412	4.1	561	3.6
Total Units	1,498	100.0	1,394	100.0	558	100.0	871	100.0	34,651	100.0	15,758	100.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-4; and Bay-Lake Regional Planning Commission, 2002.

Age of Housing

As of 2000, the majority of housing units (33.7 percent) in the city of Kiel were built in 1939 or earlier. The same is true for all areas compared (Table 3.12). However, a large number of homes in the city of Kiel were also built between 1970 and 1979. In addition, according to the 2000 Census the city of Kiel experienced a growth of 280 housing units since 1990.

Table 3.12: Housing Units by Year Structure Built, 2000, City of Kiel & Selected Areas*

Year Structure Built	City of Kiel		City of New Holstein		Town of New Holstein		Town of Schleswig		Manitowoc County		Calumet County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1999 to March 2000	56	3.8	17	1.2	16	2.9	19	2.2	548	1.6	765	4.9
1995 to 1998	135	9.1	99	7.0	62	11.2	89	10.2	2,090	6.0	1,730	11.0
1990 to 1994	134	9.0	61	4.3	34	6.1	70	8.0	1,985	5.7	1,513	9.6
1980 to 1989	79	5.3	117	8.3	61	11.0	73	8.4	2,588	7.5	2,229	14.1
1970 to 1979	259	17.4	260	18.5	107	19.2	95	10.9	5,053	14.6	2,705	17.2
1960 to 1969	77	5.2	224	15.9	37	6.7	116	13.3	3,516	10.1	1,751	11.1
1940 to 1959	244	16.4	245	17.4	51	9.2	104	11.9	7,291	21.0	1,661	10.5
1939 or earlier	501	33.7	386	27.4	188	33.8	308	35.2	11,580	33.4	3,404	21.6
Total	1,485	100.0	1,409	100.0	556	100.0	874	100.0	34,651	100.0	15,758	100.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-4; and Bay-Lake Regional Planning Commission, 2002.

* Data is based on a sample.

Condition of Housing Stock

Determining the number of substandard housing units in the city of Kiel will serve as an indication of the condition of the overall housing stock. Those units that are determined to be substandard should not be considered as part of the overall housing supply. The definition of substandard can vary from community to community; it can also change over time. Often determining a structure as substandard can be based solely on the age of the structure, however many older housing units have been remodeled or renovated and should not be considered substandard. In 2000, there were 501 structures (33.7 percent of the total housing units) built prior to 1940, many of which may not be substandard. According to the 2000 census, two housing units in the city lacked plumbing facilities and all had complete kitchen facilities. Units without complete kitchen or plumbing facilities are typically considered substandard and removed from being considered as part of the overall housing stock. Thus, two housing units within the city of Kiel should not be counted as part of the housing stock.

Household Relationship

Table 3.13 displays the varying household types and relationships that were found in the city of Kiel and selected areas in 2000. All of the persons, but two, residing in Kiel, lived in households. The remaining two individuals were living in non-institutionalized group quarters. The trends

found for the city of Kiel, regarding household type and relationship, are very similar to those found in the other areas that were selected for comparison.

Table 3.13: Household Type and Relationship, 2000, City of Kiel & Selected Areas

Relationship	City of Kiel		City of New Holstein		Town of New Holstein		Town of Schleswig		Manitowoc County		Calumet County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
In Households	3,448	99.9	3,132	94.9	1,457	100.0	1,900	100.0	81,449	98.3	40,271	99.1
Householder	1,425	41.3	1,329	40.3	539	37.0	697	36.7	32,721	39.5	14,910	36.7
Spouse	800	23.2	735	22.3	392	26.9	506	26.6	18,683	22.5	9,689	23.8
Child	1,070	31.0	888	26.9	464	31.8	617	32.5	25,122	30.3	13,666	33.6
Other Relative	45	1.3	47	1.4	22	1.5	27	1.4	1,749	2.1	642	1.6
Non Relative	108	3.1	133	4.0	40	2.7	53	2.8	3,174	3.8	1,364	3.4
In Group Quarters	2	0.1	169	5.1	0	0.0	0	0.0	1,438	1.7	360	0.9
Institutionalized	0	0.0	164	5.0	0	0.0	0	0.0	874	1.1	306	0.8
Noninstitutionalized	2	0.1	5	0.2	0	0.0	0	0.0	564	0.7	54	0.1
Total Persons	3,450	100.0	3,301	100.0	1,457	100.0	1,900	100.0	82,887	100.0	40,631	100.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-4; and Bay-Lake Regional Planning Commission, 2002.

Housing Values

In 2000, the majority of housing units in the city of Kiel were valued between \$50,000 and \$99,999 (Table 3.14). The median value of specified owner-occupied housing units in the city of Kiel was \$95,700; this lies between the median values for Manitowoc and Calumet counties, which are \$90,900 and \$109,300 respectively.

Table 3.14: Values of Specified Owner-Occupied Housing Units, 2000, City of Kiel & Selected Areas

Value	City of Kiel		City of New Holstein		Town of New Holstein		Town of Schleswig		Manitowoc County		Calumet County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than \$50,000	32	3.6	40	4.3	6	2.4	5	1.3	1,434	7.3	245	2.5
\$50,000 to \$99,999	471	53.5	625	66.6	79	31.2	123	32.0	10,440	52.9	3,855	39.2
\$100,000 to \$149,999	278	31.6	204	21.7	89	35.2	111	28.9	5,040	25.5	3,603	36.6
\$150,000 to \$199,999	72	8.2	57	6.1	55	21.7	81	21.1	1,765	8.9	1,356	13.8
\$200,000 to \$299,999	17	1.9	13	1.4	24	9.5	55	14.3	811	4.1	590	6.0
\$300,000 to \$499,999	11	1.2	0	0.0	0	0.0	6	1.6	200	1.0	149	1.5
\$500,000 to \$999,999	0	0.0	0	0.0	0	0.0	1	0.3	41	0.2	41	0.4
\$1,000,000 or more	0	0.0	0	0.0	0	0.0	2	0.5	22	0.1	7	0.1
Total Units	881	100.0	939	100.0	253	100.0	384	100.0	19,753	100.0	9,846	100.0
Median Value	\$95,700		\$85,700		\$117,900		\$130,100		\$90,900		\$109,300	

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-4; and Bay-Lake Regional Planning Commission, 2002.

Housing Costs - Rents and Mortgage

Providing affordable housing that meets the needs of future Kiel residents is an important element of planning. Housing influences the economy, transportation, infrastructure, natural features, and various other aspects of a comprehensive plan. According to the U.S. Department of Housing and Urban Development (HUD), housing affordability is defined as paying no more than 30 percent of household income for housing. According to the 2000 census the median household income for the city of Kiel was \$44,239 in 1999. Therefore, assuming individuals made the median household income in 1999, the monthly amount a household can afford for housing is approximately \$1,106.

Rent and Income Comparison

According to the 2000 census, the median gross rent for renter-occupied housing units was \$449 for the city of Kiel in 1999. Seventy one out of 363 renters (19.5 percent) paid 30 percent or more of their income in rent in Kiel. This 20 percent is considered as living in non-affordable housing.

Owner Costs and Income Comparison

The 2000 census indicates that 106 out of 881, or 12 percent, of owners paid 30 percent or more for monthly owner costs and are considered to be living in non-affordable housing. For owner-occupied housing units with a mortgage in 1999, the median monthly owner cost was \$875 for the city of Kiel. For owner-occupied units without a mortgage, the median monthly cost was \$286 for the city.

Subsidized and Special Needs Housing

Within the Manitowoc and Calumet County areas exist a variety of agencies that help find and develop housing for persons with various physical and mental disabilities or other special needs. The Lakeshore CAP (920-682-3737) has information regarding several agencies such as: WHEDA (920-406-0797), Housing Authority (920-834-3003), Housing Management Services (920-834-5150), and Farmers' Home Administration (920-834-7066). Partners (920-459-2780) located in Sheboygan can also assist individuals with special needs.

Within the city it is expected that assistance with home improvement, rent, and home loans are the greatest needs for residents.

Housing Development Environment

Within the city exists a number of services for residential uses. Future housing will develop within well-defined residential neighborhoods within and adjacent to existing services utilizing existing transportation corridors as well as newly constructed neighborhood streets.

The city has many acres of developable lands to accommodate future populations. The lands vary in their aesthetic qualities based upon location to natural features. Housing regulations allow for a mix in use and density.

ANALYSIS AND DEVELOPMENT OF COMMUNITY POLICIES AND PROGRAMS

Although there are currently no programs, policies, or assistance programs specifically regarding housing in the city there are some programs available at the county, state, and also federal level in which city residents would be eligible.

Housing Programs

A number of federal and state housing programs are available to help local communities promote the development of housing for individuals with lower incomes and certain special needs. Some communities may also want to explore developing their own programs. Below are agencies established to provide assistance to a wide variety of communities.

***Note: Not each program may not be available to the city, nor is each recommended. The programs are described in order to educate residents on specific agencies and their programs, and to be an inclusive information source during planning discussions.*

Federal programs and revenue sources

The **Department of Housing and Urban Development (HUD)** is the federal agency with primary responsibility for housing programs and community development. It provides subsidized housing through low-income public housing and the Section 8 program that provides subsidies

for rent in private apartments to low-income households. Both of these programs operate principally through local public housing authorities. To be eligible for these programs and others, a community may want to explore establishing a public housing authority under section 66.40 of the Wisconsin Statutes.

HUD also provides money to communities for a variety of housing purposes. Part of this money is distributed to entitlement jurisdictions (cities of over 50,000 population and designated urban counties) and other communities through grants to states who distribute the money to non-entitlement communities. In Wisconsin, the state agency that serves as the conduit for these funds is the Division of Housing & Intergovernmental Relations (DHIR) within the Department of Administration. It awards these funds through a competitive request-for-proposals process. Funding from other HUD programs is distributed through national competitions.

For information about programs that might be available for specific local initiatives, contact the Wisconsin HUD office that is located in Milwaukee. The general phone number is (414) 297-3214. You can also visit the office's web site at www.hud.gov/local/mil/.

Rural Development - United States Department of Agriculture (USDA-RD) provides a variety of housing and community development programs for rural areas. Its programs are generally available in areas with populations of 10,000 or less. It provides support for rental housing development, direct and guaranteed mortgage loans for homebuyers, and support for self-help and cooperative housing development.

USDA-RD has district offices serving most parts of Wisconsin. To find out about programs that might benefit your community, look in the phone book in the federal government listings under "Agriculture, Department of" or "Rural Development." You can also call the state office that is located in Stevens Point at (715) 345-7600, or explore the web site of the national office at www.rurdev.usda.gov/agency/rhs/rhs.html. Bay-Lake Regional Planning Commission is also available to assist you in gathering information.

State Programs and Revenue Sources

Department of Administration, Division of Housing & Intergovernmental Relations (DHIR) is one of two state agencies that administers housing programs. It administers several programs that are funded by the state and many more that are funded by HUD. State programs funded by general-purpose revenue cannot be used to invest directly in housing development. Instead these funds are used to help organizations acquire the capacity to develop housing, or to provide various types of financial assistance to homebuyers or renters through grants to local governments or non-profit agencies.

Information about current programs administered by DHIR can be obtained by telephoning (608) 266-0288.

Wisconsin Housing and Economic Development Authority (WHEDA) is a quasi-governmental agency that finances housing development through the sale of bonds. It receives no direct state-tax support. It provides mortgage financing for first-time homebuyers and financing for multifamily housing as well. Specific programs evolve and change with the needs of the housing market.

WHEDA also manages several federal-housing programs. One program, the Low Income Housing Tax Credit Program, encourages housing development by providing private investors with income tax credits when they invest in low income housing development. Tax credits are allocated to housing projects on a competitive basis.

Information about WHEDA programs can be obtained by telephoning (800) 334-6873 or by visiting its web site at www.wheda.com.

The Lakeshore Community Action Program (Lakeshore CAP, Inc.) also has assistance programs available to residents in Manitowoc County, Door County, Kewaunee County and Sheboygan County.

Local Programs and Revenue Sources

Housing trust fund. A housing trust fund is a pool of money available for housing projects for middle- or lower-income households. The fund is used to fill financial gaps to make projects feasible. Trust funds may be replenished yearly or they may be designed to be perpetual and self-sustaining. Revolving funds are sustained by the payments of loan recipients that are then used to supply additional loans. Sources of revenue to begin or replenish housing trust funds include eschewed or abandoned funds, sale of public land, general obligation bonds, general appropriations, endowments and grants, and surplus reserve funds.

Housing trust funds are particularly well-suited to meet the large and long-term capital investment needs of projects. Unlike funds that rely on the vagaries of state or local annual appropriations, a housing trust fund is a permanent dedication of a specified amount for housing. Trust fund money can be used in a number of ways. It may assist in home purchase, down payment assistance, security deposit assistance, housing construction, rehabilitation, maintenance and operation, technical assistance for housing organizations, homeless shelters, debt or equity financing, and second mortgages. The City of Stevens Point, in central Wisconsin, is one example of a community that has established a housing trust fund. For information on how this fund was established and how it is used, contact the Housing Authority of the City of Stevens Point at (715) 371-3444.

Housing linkage programs. Voluntary housing linkage programs encourage developers of office, commercial, retail, or institutional development to construct or make financial contributions towards affordable housing. The underlying rationale is that new, non-residential development creates a need for housing by attracting employees to an area. Therefore, the developers should contribute towards satisfying this need. Linkage programs usually apply to new construction but they may also apply to expansion of existing space. The programs are popular with developers when they either reduce costs or add value to the project. Examples of incentives are density bonuses, reduced setbacks, and reduced parking requirements.

These programs benefit businesses, the developer, and the community. Developers benefit from the incentives while communities benefit from more affordable housing. Businesses benefit from a well-housed and accessible labor force. Office/housing linkage programs will be most useful in communities experiencing high growth rates where developers are more willing to take advantage of incentives and where linkage programs can reduce the pressure for housing.

Tax increment financing (TIF). TIF is a tool available to cities and villages in Wisconsin under section 66.46 of the Wisconsin Statutes for redeveloping blighted areas. TIF can be used to cover

costs of public works or improvements including costs for demolition, land assembly, public improvements, and new buildings. Under TIF, new private development creates higher property values, thus creating a greater tax base (the tax increment). This increment, or a portion of the increment, is set aside for reinvestment in the area. Tax increment financing could be used to assist in the building or rehabilitation of affordable housing for middle- and lower-income households.

Private programs

Non-profit housing development corporations. A non-profit corporation is an organization that may qualify for tax-deductible donations, foundation grants, and public funds. To be eligible, the organization must apply for and receive non-profit status from the IRS. Non-profits build and maintain housing in many areas of Wisconsin. Their projects help communities improve their range of housing opportunities.

Non-profits are eligible for state and federal financial resources, making them an important vehicle for publicly-desired housing. They often work in collaboration with local governments, civic organizations, citizens groups, and for-profit developers. This improves communication and coordination in the community and creates an atmosphere for future projects. Municipalities too small to have their own housing staff or programs may contract with non-profits to provide services such as housing management and grant writing. They may also be able to pool resources with the non-profit agencies in area communities. Non-profits can develop technical expertise and skills with regard to finance, construction, rehabilitation, and project management.

Wisconsin is unique in that it has a program to specifically assist nonprofit housing organizations. The program is called the Local Housing Organization Grant (LHOG) Program. It provides grants to nonprofits to increase their capacity. To find out about LHOG, or if there is a non-profit housing developer serving your area, contact the Department of Administration, Division of Housing and Intergovernmental Relations at (608) 266-0288.

Housing Plan

Below is a detailed discussion of how the community can achieve their desired housing for all of their residents utilizing information provided by the UW-Extension along with state programs. The three housing requirements as defined by s66.1001(2)(b) are detailed below - along with options/actions presented to meet these state requirements. An overall recommended community strategy is formulated at the beginning of this chapter and states specific policies and programs the city will follow to meet these requirements.

Requirement 1. Promoting the development of housing that provides a range of housing choices to meet the needs of persons of all income levels and of all age groups and persons with special needs.

An increasing number of people cannot find housing in their community that is suitable for their stage of life -- from young wage earners to couples with grown children. Local communities and their governments need to pursue strategies that encourage the development of a range of housing choices to meet the needs of people with different income levels and with various needs. People with special needs typically include the elderly, physically and mentally disabled persons, and may include other classifications such as farm workers and migrant laborers. As the general

population of Wisconsin ages, affordability, security, accessibility, proximity to services, transportation, food, and medical facilities will all become very important.

Specific local actions

Local governments affect the type and cost of housing available in their community through their regulations and policies. While most government regulations are implemented in order to serve specific community health, safety, and welfare needs they may have unintended adverse impacts on affordability. A review of local regulations may reveal areas where changes can be made to decrease the impact on affordability without compromising the protection of public health, safety, and welfare.

Some specific strategies to promote a range of housing choices to meet a variety of needs include the following:

Zoning and subdivision regulations for smaller lot size

One technique for insuring a range of housing is to provide a range of densities and lot sizes. Traditional zoning ordinances may only allow a limited variety of lot sizes throughout a community for single-family residential development.

Land costs can be 25 percent or more of the total cost for a home. One way to reduce land costs is to reduce lot size. First, lot prices are less expensive for smaller parcels. Second, land development costs are less because they may be spread over a larger number of units. Third, less infrastructure is needed because development on smaller lots requires fewer miles of roads, sidewalks, gutters, and shorter utility runs. In a competitive market, reduced land development costs are passed on to consumers.

Smaller lot sizes, which seek to increase overall density within the community, can also be linked to other community planning objectives. For example, higher density development can (1) preserve farmland, open space, and environmentally sensitive areas by reducing the overall amount of land needed for housing; (2) improve the viability of mass transit, provide opportunities for residents to live near their jobs, and thereby help reduce vehicle miles traveled; (3) use existing infrastructure more efficiently than less compact development, thus reducing service costs and saving tax dollars.

Increasing density may meet with opposition from existing area residents. To address these concerns attention must be given to site design characteristics. For example, design elements such as the layout of streets, lots, mixing of lot and house sizes, variation in building setbacks and elevations, variation in exterior designs, and quality landscaping to provide privacy. The development must be attractive if it is to be accepted by the larger community.

A word of caution: Concentrating the very lowest income households together in high densities has proven to have a negative effect upon the community, the residents, and the condition of the housing. A broader mix and range of housing choices throughout a community is, therefore, important.

Standards in zoning and subdivision ordinances

Many communities have zoning and/or subdivision ordinances that contain building requirements that may unnecessarily increase the cost of housing thereby limiting the range of

housing choices available in the community. These include requirements setting forth minimum floor area size. By removing minimum floor area sizes, communities can increase the range of housing opportunities.

Many local subdivision regulations also include standards for how subdivisions are designed (e.g., road widths, sidewalks, tree plantings, setback, materials, land dedication, sidewalks or paths, location of the structure on the site, garages). Communities should review their subdivision ordinances to identify provisions that constrain housing. Old ordinances in particular may be in need of revision to meet current needs. Current neighborhood design emphasizes social, economic, and environmental aspects and endeavors to create neighborhoods that are more energy efficient and that have a greater range of housing options.

The following are some suggestions for reviewing subdivision regulations:

Setbacks - Large setbacks increase housing costs. They originated as a means of fire protection. Subdivision regulations should establish maximum front yard setbacks, either in addition to or instead of minimum setbacks. Side yard setbacks may also need to be decreased.

Streets - Narrower streets can reduce development costs.

Lot layout - Traditional platting design has been to site large, one-sized lots without regard to local climate, topography, or hydrology. Current practice emphasizes variety in lot size, shape, and use to increase housing options within the development.

Lot design and vegetation - Using breezes and topography and trying to capture winter sun and block summer sun can save residents money on fuel costs.

References/Additional Resources

Removing Regulatory Barriers to Affordable Housing in Wisconsin: A Report by the Governor's Task Force on Regulatory Barriers to Affordable Housing (1994).

Affordable Housing Techniques: A Primer for Local Government Officials by the Municipal Research and Services Center of Washington (1992).

Changing Development Standards for Affordable Housing by Welford Sanders and David Mosena (American Planning Association, PAS Report # 371, 1982).

Planning for Affordable Housing by the Vermont Department of Housing and Community Affairs (1990).

A Citizen's Guide to Conserving Land and Creating Affordable Housing by the Burlington Community Land Trust and the Vermont Land Trust (1990).

Smart Growth: Creating Communities for People by Allison Semandel and Mike Kinde (Citizens for a Better Environment, 1999).

Model Code Provisions - Urban Streets & Subdivisions Washington State Department of Community, Trade and Economic Development (1998).

Innovative zoning and subdivision techniques

Innovative development techniques, such as *mixed-use development*, *zero lot lines*, and *cluster development*, can also encourage a broader range of housing choices.

Mixed-use development allows different land uses, such as commercial and residential, and allows several different housing densities within a single development. Mixed-use developments can range in size from single buildings with apartments located over retail uses, to large-scale projects that include office and commercial space along with housing.

With mixed uses, commercial uses may make housing development economically feasible when it otherwise would not be. Higher density housing in commercial zones may be more politically acceptable than increasing densities in established single-family areas. Sensitive design and site planning is critical with mixed-use developments.

Mixed-use developments can be regulated in various ways. Some communities allow residential uses in certain identified commercial zones. Other communities consider housing in commercial areas as conditional uses. Other communities allow mixed uses within a planned development district (also commonly referred to as planned unit development or PUD) or in special mixed-use districts.

Zero-lot-line. Conventional zoning requires that the home be set back from every lot line. However, for small lots the "yards" created on each side of the house are very small, and usually useless. Zero-lot-line ordinances place the house on one of the side-lot lines and/or on the rear or front-lot line. By placing a house on the lot lines, the amount of useable space on the other sides is doubled.

Some communities permit houses to be sited on a common lot line so that they resemble duplexes. Other communities require that they be sited on alternate lot lines, to give the appearance of housing in a conventional development. The advantage of zero lot line is that it offers the lower costs associated with high-density development while still maintaining the privacy and appearance of traditional single-family detached housing.

Cluster development allows housing units to be grouped within a residential development on lots smaller than those normally allowed. Clustering can help reduce housing costs because of decreased lot sizes and because of decreased development costs. But, cluster development may increase site planning, design, and engineering costs. It can create common open space and protect environmentally sensitive land. It is a technique that has been used in developing urban and rural areas. Cluster developments are regulated in a number of ways. Zoning ordinances can specify zones in which cluster developments are permitted and/or allowed by special permit. Subdivision regulations can outline development standards for clustering. Cluster development may also occur as part of a planned development district.

References/Additional Resources

Southeastern Wisconsin Regional Planning Commission, *Rural Cluster Development Guide* (Planning Guide No. 7, 1996).

East Central Wisconsin Regional Planning Commission, *Rural Development Guide for East Central Wisconsin Governments and Landowners* (1999).

Randall Arendt, *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks* (Island Press, 1996).

Density bonuses

A *density bonus* allows a developer to build more units in a project than would otherwise be permitted. Bonuses may be offered in exchange for preservation of open space or other things valued by the community. Density bonuses increase the value of the overall project and may therefore make certain projects economically feasible when they otherwise would not be. Density bonuses offer a positive alternative to mandatory programs that may be resisted by developers. Developers may decide for themselves whether participation will be cost effective.

The community will need to decide the amount of increased density given in exchange for the desired development features. Because the market ultimately determines the success of density bonus programs, program designers will need a thorough understanding of the local and regional real estate market. For example, if current zoning already allows enough density to satisfy market demand, developers will have no interest in a density bonus. Density bonus programs may be implemented through zoning or subdivision ordinances, or both.

Inclusionary zoning

Inclusionary zoning requires that a certain number of units in a new development be set aside as affordable. Inclusionary programs may apply to both rental and owner-occupied units and may be mandatory or voluntary. Some communities have found that mandatory programs impose costs on developers that are too heavy and actually impede new construction of both affordable and market-rate units by making them economically unfeasible. If requirements are imposed, they should be modest enough to ensure developers an adequate return on their investment. Voluntary programs are preferable to mandatory programs if developers will use the incentives.

Voluntary programs provide incentives to allow developers to determine for themselves whether participation will be cost effective. Incentives may be density bonuses, waiving development fees, and financial assistance through federal, state, and local programs.

References/Additional Resources

Affordable Housing Techniques: A Primer for Local Government Officials by the Municipal Research and Services Center of Washington (1992).

Planning for Affordable Housing by the Vermont Department of Housing and Community Affairs (1990).

Affordable Housing: Proactive and Reactive Planning Strategies by S. Mark White (American Planning Association, PAS Report #441, 1992).

Accessory or "granny" apartments

An *accessory or "granny" apartment* is a living unit separate from the primary residential unit. It includes separate kitchen, sleeping, and bathroom facilities. Accessory apartments may be attached to the primary dwelling or detached. Attached accessory units typically involve some space in the existing home, such as an attic, garage, or basement family room. Detached units are sometimes also referred to as "accessory cottages." They may be guest or servant quarters, converted sheds, or garages.

Accessory apartments benefit elderly persons with limited resources living in large single-family homes with under-used space; households with an older relative who is still able to live

substantially independent, but requires some degree of assistance; and young adults who want to live independently while still being near to their parents.

Accessory units may already exist in the community without ordinances. Communities may want to adopt regulations to address the size of units, their concentration, their exterior appearance, and parking requirements. In some communities accessory units can only be used for a frail elderly person or caretaker and the kitchen must be removed when this permitted use ends.

References/Additional Resources

Accessory Apartments: Using Surplus Space in Single-family Houses by Patrick H. Hare, Susan Conner, Dwight Merriam (American Planning Association, PAS Report #365, 1981).

Streamlined permitting processes

The land-use permitting process affects the cost of housing. Delays in the review of proposed housing developments can add to development costs. A more efficient land-use review process can also result in a more cost-effective way to administer land-use regulations.

The following are ideas for streamlining the land use permitting process. Because each of these reform measures is designed to accomplish different objectives, they are best used in combinations:

Self-assessment - Begin by taking stock of the permitting process. For example, how long does a typical development review take from start to finish? Are there places where the system bogs down? Are there ways to eliminate or consolidate some of the steps in the approval process?

Centralized, one-stop permit desk - This saves applicants from needlessly backtracking to different offices and departments. Include interdepartmental review to help coordinate the numerous departments that may be involved in the development process.

Checklists and flow charts - Consider publishing guidebooks that outline the local permit process.

Zoning and subdivision ordinances should describe the application process from start to finish - Ordinance language should be simple and direct and the sections and standards that relate to one another should be cross-referenced. Doing so benefits applicants and those who administer and enforce the ordinance.

Pre-application conferences - Formal or informal meetings with community staff to present concept or sketch plans, address requirements, and save money by clarifying expectations before the expensive technical and engineering work begins.

Concurrent review - Concurrent review allows different steps in an application to proceed at the same time, (like a petition for a zoning change and review of a subdivision plat) thus reducing the overall time needed.

Staff discretion on administrative matters - Minor subdivision approvals and issues involving mostly technical and minor changes to submittals can be handled by planning staff. Plan commission time should not be wasted on such matters.

Fast-tracking - Development projects, that are desirable because of type or location, can be encouraged by exempting them from certain permit requirements.

Encourage innovation - Innovative techniques may be encouraged by an expedited permit process and by allowing them as conditional uses or as overlays to existing zoning districts.

References/Additional Resources

Streamlining the Development Approval Process by Debra Bassert (Land Development, Winter 1999, pp. 14-19).

Streamlining Land Use Regulations: A Guidebook for Local Governments by John Vranicar, Welford Sanders, and David Mosena (American Planning Association, 1982).

Affordable Housing: Proactive and Reactive Planning Strategies by S. Mark White (American Planning Association, PAS Report #441, 1992).

Impact fees

Impact fees are fees imposed on development to mitigate the capital costs of new public facilities necessitated by the development. Public facilities include infrastructure for transportation, water, stormwater, parks, solid waste, and fire and police. However, impact fees cannot be used for school facilities. Under section 66.0617(7) of the Wisconsin Statutes, impact fee ordinances must provide for an exception from, or a reduction in the amount of, impact fees on developments that provide low-cost housing.

Requirement 2. Promoting the availability of land for the development or redevelopment of low-income and moderate-income housing

Communities must promote the availability of undeveloped or underused land as one way to meet the low- and moderate-income housing needs identified in the housing element of s66.1001. Several options are available to communities. For example, communities should insure an adequate supply of land is planned and zoned for multifamily housing and for development at higher densities to meet forecasted demand.

Promoting the availability of land for low- and moderate-income housing also can be integrated with other planning issues. For example, urban communities may try to identify areas near transit lines or where new transit might be feasible because of higher density and mixed-use development.

Additional strategies for promoting the availability of land for the development or redevelopment of low- and moderate-income housing include the following:

Specific local actions:

Community land trust

Community land trusts protect housing by keeping land from the speculative market. They typically work by owning the land, and selling or leasing the buildings. Buyers or lessors agree to a limited appreciation should they decide to later sell or lease to another. The model works to preserve both existing residential units and new units built on the land. Also, it can be used to preserve affordable space for such things as community centers, health care facilities, small

businesses, or day care centers. Community land trusts are similar to conservation land trusts that protect natural resources and open space.

Community land trusts provide the following benefits:

Lower land costs - Because land trusts remove land costs from the purchase price of a property, housing units can be sold or rented for less;

Permanent affordability - Removing land costs and limiting the amount of appreciation means that land trust housing will always be more affordable than market-rate housing for as long as the trust exists (which may be indefinitely);

Retention of investment - Grants, loans and other investments in a land trust are effectively recycled year after year through rents or sale prices, instead of requiring continuous financial support;

Community stability - Community land trusts are non-profit organizations controlled by local personalities. They are committed to stabilizing local housing costs for the long term and preserving a community's social fabric;

Speed - Land trusts can more quickly purchase properties that become available than can government.

The Madison Area Community Land Trust has been active since 1990 working with the City of Madison. For more information about the Madison Area Community Land Trust call (608) 255-6442.

References/Additional Resources

Institute for Community Economics, 57 School Street, Springfield, MA 01105-1331. 413-746-8660.

A Citizen's Guide to Conserving Land and Creating Affordable Housing by the Burlington Community Land Trust and the Vermont Land Trust (1990).

Use of public or donated land for housing

Development of housing on publicly owned land, or land donated for affordable housing, can substantially increase the financial feasibility of many housing projects. Communities can also seek to encourage the donation of land for affordable housing.

Lands acquired by the community through tax forfeiture may be appropriate for affordable housing. Local governments and nonprofits may also engage in a program to acquire land and hold it until the community is ready to develop housing. Funding to acquire land may be available from federal and state programs.

Infrastructure improvements reserved for affordable housing

Giving priority for sewer and water extension to projects that include housing units affordable to middle- and lower-income households can increase the likelihood that such housing will be built. The priority may be formalized in an ordinance or informally as a plan policy.

Infill development

Infill refers to development on vacant or under-used land within built-up urban areas. Infill can range from construction of single-family housing on one or two adjacent lots; to development of entire city blocks containing both residential and commercial uses.

Infill development has several advantages. Infill areas are already served by public facilities, including roads, sewer and water, police, fire, utilities, schools, and transit. Infill opportunities may sometimes be located on higher-cost urban land. If this is the case, then multi-family housing and/or mixed-use projects that have lower per-unit development costs may be most appropriate. Density bonuses or faster permitting may also add to an infill project's economic feasibility.

Communities may encourage infill development by preparing an inventory of potential infill sites and distributing it to developers; adopting flexible regulations that allow development of irregular or substandard infill lots; allowing mixed uses for infill developments, which may enhance the economic feasibility of projects; assisting in the consolidation of infill lots into larger, more easily developed sites; and acquiring abandoned property and demolishing structures beyond rehabilitation.

To minimize neighbor concerns infill units should be designed to fit in with the massing and density of the existing neighborhood as much as possible. For example, if the neighborhood is all two- story houses with steep pitched roofs the infill units would probably be more acceptable if they had two stories with steeply pitched roofs. The Wisconsin Housing and Economic Development Authority has had a special financing program to support the development of infill housing. They used this program in several cities where they successfully added new structures to existing neighborhoods using modular homes.

Adaptive reuse

Adaptive reuse involves the conversion of surplus and/or outmoded buildings to economically viable new uses such as housing. Examples of outmoded buildings include old schools, hospitals, warehouses, and factories. It is one method for introducing housing into non-residential areas. Projects that involve historically or architecturally significant buildings may qualify for preservation tax credits.

Communities can facilitate adaptive reuse by developing flexible ordinances to facilitate adaptive reuse, by arranging for possible property transfers of publicly-owned buildings, and by providing assistance in obtaining sources of funding such as loans, grants, and rent subsidies.

Manufactured Housing

Manufactured housing can be an important source of low and moderate cost housing in a community. Communities may want to encourage manufactured housing as a means of expanding the range of housing opportunities. Manufactured housing is less expensive to build than site-built housing because of lower production costs. The term *manufactured housing* describes housing that is constructed in a factory and delivered to the site as a finished product. While these homes are often referred to as "mobile homes", fewer than 5 percent of manufactured homes are moved, once placed on a site.

Local communities often try to prohibit the siting of manufactured housing due to concerns about the effect on the tax base since manufactured housing is often taxed as personal property. However, a study by the University of Wisconsin-Extension suggests that manufactured home communities may actually have a positive impact on local taxes. There also may be concerns about the effect on adjacent property values and the visual quality of manufactured homes. A University of Michigan study, however, concluded that manufactured home parks have little or no impact on adjacent residential property values.

Communities may want to review their zoning ordinances to be sure that their regulations do not unduly restrict the use of manufactured homes. For additional information regarding manufactured housing and integrating them into single-family neighborhoods, contact the Wisconsin Manufactured Housing Association at (800) 236-4663.

The Foundation for rural housing located in Madison has developed a program with the Wisconsin Manufactured Housing Association and the Department of Corrections to obtain donated manufactured homes, rehabilitate them with prison labor and make them available for low income housing. For information contact the Foundation at (608) 238-3448.

References/Additional Resources

Manufactured Housing: Regulation, Design Innovations, and Development Options by Welford Sanders (American Planning Association, PAS Report #478, 1998).

Manufactured Housing Impacts on Adjacent Property Values by Kate Warner and Jeff Scheuer (University of Michigan, 1993).

Municipal Revenue Impact of Tax Exempt Mobile Homes: A Methodology for Extension Agents by Richard Stauber (University of Wisconsin-Extension, 1995).

Product Report: 'Manufactured Housing' available from the American Association of Retired Persons website at www.aarp.org/manhov1.html.

Manufactured Housing and Standards: Fact Sheet for Purchasers of Manufactured Homes (1999) available from the U.S. Department of Housing and Urban Development website at hud.gov/fha/sfh/mhs/mhssht3.html.

Regulating Manufactured Housing by Welford Sanders (American Planning Association, PAS Report # 398, 1986).

Requirement 3. Maintaining or rehabilitating existing housing stock

It is important that the communities housing plan consider conservation of the communities existing housing stock. The existing stock often is the primary source of affordable housing. In many communities the existing housing is aging and may need investment to maintain its utility. Communities and local governments should develop strategies that prevent neglect and encourage reinvestment in the existing housing stock.

Specific local actions:

Building code

The State of Wisconsin has a uniform dwelling code that must be followed for the construction and inspection of all one- and two-family dwellings in the state. Local communities in the state

have certain responsibilities for enforcement of the code. The uniform dwelling code is administered by the Wisconsin Department of Commerce and is found in the Administrative Rules for the Department of Commerce (COM 20 - COM 25).

Historic building code

The standard state building codes may make rehabilitation of certain older homes prohibitively expensive or impractical. Communities in Wisconsin that have adopted historic preservation ordinances certified by the State Historical Society of Wisconsin can use the Wisconsin Historic Building Code for locally designated historic buildings. The Historic Building Code, administered by the Wisconsin Department of Commerce, permits a flexible and cost-effective approach to rehabilitating historic buildings. The code is found in the Administrative Rules for the Department of Commerce (COM 70). Information is also available from the Division of Historic Preservation at the State Historical Society of Wisconsin at (608) 264-6500.

Housing code

All communities in Wisconsin can enact housing codes under their general authority to protect public health, safety, and welfare. Housing codes provide standards for how a dwelling unit is to be used and maintained over time.

It is important for communities to review housing code enforcement efforts to determine if they need to be increased or modified to make them more effective. Communities can intensify housing code enforcement programs to help maintain housing and upgrade deteriorating housing stock. In some communities, code enforcement capacity is so limited that routine inspections are scheduled only once in ten years. Communities could consider focusing enforcement efforts on select neighborhoods, publicizing code provisions, and complaint procedures.

Community paint/fix up events

Local governments should target home maintenance/rehabilitation programs at the neighborhood level because the visibility can help create peer pressure to motivate others to fix up their homes. One strategy is to organize painting/fix-up events in partnership with local professional and civic groups to encourage volunteers to help with exterior maintenance of target residences.

Rehabilitation loans and grants

Code enforcement can be supplemented with financial and technical assistance to homeowners and tenants. Communities may establish loan or grant programs to assist owner occupants with repairs. Such programs are commonly funded by federal Community Development Block Grant dollars. The programs often focus on specific census tracts or neighborhoods where the concentration of deferred maintenance is highest. In addition to keeping housing units functioning, maintenance and rehabilitation are also worthwhile because they build pride among residents, stimulate others to repair their homes, encourage long-term investment and maintenance, and reduce potential neighborhood problems.

Occupant education and cooperation

Many repairs are simple enough that most homeowners can help if given some guidance. Educational programs to train homeowners and renters can help ensure that the homes are rehabilitated and maintained in good condition. These educational programs help property owners better understand the responsibilities of home ownership.

Chapter 4 - ECONOMIC DEVELOPMENT

INTRODUCTION

Throughout the planning process, many factors contribute to economic development opportunities and needs within a community. For this reason, labor force characteristics and economic base indicators were analyzed at the local, county, regional and state level to determine trends, opportunities and needs for the city of Kiel.

SUMMARY AND IMPLICATIONS

1. Federal, state, county, and local programs exist to promote opportunities within the city.
2. The majority of employed persons in Kiel work in production, transportation, and material moving, or in management and professional occupations. The industry group that employed the most people in the city of Kiel was the manufacturing industry.
3. For the period 1990-2001, the civilian labor force in Manitowoc County increased by ten percent. It also increased by 21 percent in Calumet County. After September 2001 the unemployment rate in both counties increased to their highest levels since the early to mid 1990's.
4. The city of Kiel had a median household income of \$44,239 in 1999, resulting in a 46.3 percent increase from 1989. This income level is greater than Manitowoc County's median household income (\$43,286), but lower than Calumet County's (\$52,569).
5. The city is in a good position for business development given its many positive attributes including:
 - an abundance of area for future growth,
 - availability of utilities (public sewer, water, etc.)
 - access to state and county highways,
 - having a "small town" atmosphere and an abundance of natural features.

The city of Kiel is a unique community within northeast Wisconsin. Along with its progressive attitude and mixture of business, the city also has active citizens that are very involved with community activities and play an important role in the city's overall development. The city also has excellent educational facilities, and contains various historic and environmental attributes that add to the city's attractiveness. Within this comprehensive plan the city of Kiel has identified areas for well planned and defined commercial and industrial developments.

Knowing where and how much of a type of business the city wants is going to be the key to the city's long range planning regarding its vision. Therefore, the City Plan Commission and the City Council will need to closely monitor commercial and industrial growth in neighboring communities, its impacts on existing infrastructure and determine the needed regulations to minimize any negative impacts they may have. A cost benefit analysis should be conducted in order to determine all aspects of future development of these types throughout the planning period.

The plan will direct development to designated commercial and industrial areas in the future, in order to steer incompatible uses away from the city's defined residential areas (See General Plan Design Map). This will help to enhance other land uses by minimizing and controlling likely nuisances.

ECONOMIC DEVELOPMENT STRATEGY

The following *Goals, Objectives, Policies, and Programs* will help guide the city in developing areas within its borders for economic growth. The following statements are both broad and specific and reflect the views of city residents and area businesses for how development should occur within the city.

Goal 1:

Provide an atmosphere for business expansion and development.

Objective:

1. Develop and maintain a diverse industrial base for the city that provides employment opportunities for residents, that is consistent with the "small town" atmosphere of the city, and are environmentally sound.
2. Continue to revitalize the downtown area (i.e. Fremont Street) to improve the city's overall appearance and attractiveness to residents, shoppers, and employers.
3. Encourage the creation and retention of employment opportunities, particularly those benefiting the unemployed, underemployed, and low-to-moderate income persons.
4. Improve the aesthetics of commercial and industrial properties along the entrance ways into the city.
5. Increase the flow of non-local dollars into the city by visitors.

Policies:

1. Locate commercial development dependent on automobile traffic and easy access, such as gas stations, restaurants, etc. along STH 57/32 and STH 67 in order to provide commercial service to local and through traffic.
2. Promote small retail, general purpose shopping, professional services and similar businesses in the downtown area that will maintain the city's core business area.
3. Promote downtown as pedestrian friendly and safe by ensuring areas are clean and well-lit and offer pedestrian amenities, such as benches, that encourage foot traffic.
4. Promote and market resources and activities available to travelers to capture additional dollars for the area.
5. Support existing businesses to retain them and encourage their growth.
6. Inform potential businesses of land use regulations and zoning restrictions.
7. Explore east/west highway options for better traffic flow.

8. Improve street maintenance to provide for adequate travel conditions.
9. Improve the architectural characteristics of the buildings downtown.
10. Upgrade or remove existing structures that are deteriorating in the downtown area.
11. Encourage infill of vacant structures in downtown Kiel.
12. Maintain Kiel's scenic green areas
13. Improve signage that attracts visitors and guides them to area attractions and public services.

Programs:

1. Continue to monitor the capacity of existing infrastructure, roads, electricity, public safety services, etc, to accommodate new development and weigh the costs to potential benefits.
2. Work with businesses to apply for grants and loans to establish or expand a business.
3. Prepare a community profile for industrial and business recruitment and provide the profile to various state and local agencies, and to industrial and business prospects.
4. Develop a marketing brochure promoting available lands to develop and advertising Kiel's unique resources related to ethnic heritage, civic events and the Sheboygan River.
5. Consider applying to the Main Street Program to provide assistance in revitalizing the downtown area.
6. Develop a theme or identity that attracts businesses and distinguishes Kiel from other communities.
7. The downtown development committee should continue to work to improve downtown through the use of landscaping, special sitting areas, signage, special lighting, welcome area and other beautification measures.
8. Establish an Architectural Review Board to review building design standards.
9. Develop an ordinance to control blight within the city (i.e. property maintenance codes).
10. Apply for CDBG Public Facilities and/or CDBG Public Facilities for Economic Development (PF-ED) grants, or establish/encourage a Downtown Business Association to improve the economic viability of Kiel.
11. Work with developers and local residents to approve established compatible hours of operation, signage, lighting, parking, and landscaping to meet the city's desire for well planned growth and "small town" setting.
12. Promote Kiel's proposed commercial and industrial properties through the use of marketing tools and the services of the Kiel Area Association of Commerce.

Goal 2:

Improve the quality of life to maintain and expand Kiel's present workforce.

Objective:

1. Improve existing housing and public services within the city.
2. Expand residential developments to retain and increase the local tax base.

Policies:

1. Increase personal income to maintain and expand workforce and possibly increase local tax base
2. Assist schools in preparing students for local career opportunities.
3. Encourage expansion and marketing of the Kiel's recreational offerings.
4. Encourage developments which are aimed towards housing the growing elderly population and the younger "first time" home buyers.
5. Develop facilities which could be aimed towards the elderly.
6. Encourage vocational, technical, and college education, employment counseling, and support services such as day care and after school child care programs.

Programs:

1. Develop a marketing brochure illustrating Kiel's picturesque environment, along with its recreational offerings and community events.
2. Encourage local educational institutions to include specialized training programs and apprenticeship programs that would benefit local industry.
3. Develop a plan to establish facilities (childcare, dining, medical, etc.) that would attract potential workers to work and live in Kiel.

Additional strategies regarding economic development for the community can be found in Appendix C of this document.

ECONOMIC PROGRAMS

This section contains a brief explanation of the agencies that could potentially help the city and its businesses with loans and grants.

Local

The city of Kiel currently has a Tax Incremental Finance District in place. This type of program is designed to facilitate revenue into infrastructure as an incentive for development. The city also has a revolving loan fund, which was established for the purpose of assisting business owners with structural improvements. In addition, information on development in the city and surrounding area is provided through the Kiel Area Association of Commerce.

County

Several agencies within Manitowoc and Calumet counties exist to support, train or fund businesses. They include the UW-Extension service for both Manitowoc and Calumet counties (informational and training), and the Manitowoc County Revolving Loan Fund (RLF) where low interest loans are provided for businesses.

In addition, Manitowoc and Calumet counties have been designated as a Technology Zone by the Department of Commerce. This program is further described in the Regional portion below.

Regional

Manitowoc and Calumet counties are part of the Northeast Wisconsin Regional Economic Partnership (NEWREP) *Technology Zone* program. The program provides income tax incentives for high-tech development in the region. The zone is designed to enhance the region's attractiveness to high-tech businesses and workers, build on the success of the biotechnology and manufacturing companies in the region, attract auxiliary companies and help existing companies increase productivity. Eligible businesses will be certified for tax credits based on their ability to create high-wage jobs (any jobs created must pay a minimum of \$10.30 per hour), and investment and support the development of high-tech industries in the region. Contact the Department of Commerce for more information on the Technology Zone program.

The Bay-Lake Regional Planning Commission and East Central Regional Planning Commission annually create a Comprehensive Economic Development Strategy (CEDS) report that evaluates local and regional population and economic activity. Economic development trends, opportunities and needs are identified within the CEDS report. All communities that are served by the Commissions, including the city of Kiel, are invited to identify future projects for economic development that the community would like to undertake. Those projects are included within the CEDS and may become eligible for federal funding through the Economic Development Administration (EDA) Public Works grant program.

Wisconsin Public Service Corporation offers economic development assistance to communities and businesses in a number of ways, including the development of business plans, acquisition of loans and educational forums.

State

The Wisconsin Department of Commerce has several grant programs that would be available to the city of Kiel. The federally funded Community Development Block Grant (CDBG) program can be used for housing, economic development and public facility improvements. The program is designed to assist economically distressed smaller communities with improvements to such things as utilities and streets, fire stations, community centers, and housing rehabilitation, as well as many other improvements needed by a community. Specifically, the CDBG-Public Facilities for Economic Development (PFED) program is designed to assist communities with expanding or upgrading their infrastructure to accommodate businesses that have made a firm commitment to create jobs and invest in the community. The CDBG-Economic Development (ED) program assists businesses that will invest private funds and create jobs as they expand or relocate in Wisconsin. Funds are awarded to a community, which then loans the funds to a business. The community may retain the repaid loan to capitalize a local revolving loan fund.

Federal

Some examples of federal programs that could assist the city of Kiel in economic development include:

USDA Wisconsin Rural Development Programs

- **Rural Business Opportunity Grants Program**

Rural Business Opportunity Grant Funds provide for technical assistance, training, and planning activities that improve economic conditions in rural areas of 10,000 people or less. A maximum of \$1.5 million per grant is authorized.

- **Rural Economic Development Loans and Grants**

Zero interest loans may be made to any Rural Utilities Service (RUS) to promote economic development and/or job creation projects including, but not limited to: project feasibility studies, start-up costs, incubator projects, and other reasonable expenses. Grants can be provided to rural communities through RUS borrowers to be used for revolving loan funds for community facilities and infrastructure and for assistance in conjunction with rural economic development loans.

- **Rural Business Enterprise Grants Program (RBEG)**

The Rural Business-Cooperative Service makes grants available under the RBEG Program to public bodies, private nonprofit corporations, and Federally-recognized Native American Tribal groups to finance and facilitate development of small and emerging private business enterprises located in areas outside the boundary of a city or unincorporated areas of 50,000 or more and its immediately adjacent urbanized or urbanizing area. The small or emerging business to be assisted must have less than 50 new employees, less than \$1 million in gross annual revenues, have or will utilize technological innovations and commercialization of new products and/or processes to be eligible for assistance. Funds can be used for a variety of things including, but not limited to: construction of buildings and plants, equipment, access streets and roads, parking areas, utility and service extensions, and a variety of other costs.

US Department of Commerce, Economic Development Administration Programs

- **Public Works and Economic Development Program**

The Public Works Program empowers distressed communities in economic decline to revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term, private sector jobs and investment.

LABOR FORCE CHARACTERISTICS

The labor force is comprised of employed persons and those seeking employment, and excludes persons in the armed forces and those under age 16. Variations in the number of persons in the labor force are the result of many factors. Shifts in the age and sex characteristics of the population, changes in the number of residents aged 16 and over, the proportion of this group (16 and over) working or seeking employment, and seasonal elements are all factors affecting the size of the labor force.

Place of Work

The ability to retain valuable human resources within a county or a city is an indicator of the overall health of the economy in the county and its respective municipalities. In 1990, 48.8 percent of workers who were 16 years and older in the Manitowoc portion of the city worked in Manitowoc County, and 37.4 percent of the city workers 16 years and older in the Calumet portion of the city worked in Calumet County (Table 4.1). When looking at Manitowoc and Calumet counties, 84 percent of Manitowoc county residents worked within the county, whereas 47 percent of workers residing in Calumet county worked within Calumet.

Table Chapter 4 .1: Place of Work, 1990 City of Kiel & Selected Areas

Place of Work	City of Kiel (Manitowoc)	City of Kiel (Calumet)	City of New Holstein	Town of New Holstein	Town of Schleswig	Manitowoc County	Calumet County
Worked in state of residence	1,255	195	1,596	761	869	37,713	17,206
Worked in county of residence	613	73	1,074	494	399	31,673	8,146
Worked outside county of residence	642	122	522	267	470	6,040	9,060
Worked outside state of residence	0	0	0	2	5	136	64

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF 3A, Table P045; and Bay-Lake Regional Planning Commission, 2002.

In 1994, 1,898 persons commuted into Manitowoc County (Table 4.2). However, 6,176 commuted out of the county, primarily traveling to Sheboygan County. This creates a net loss of employees for the county of 4,278 persons.

Table Chapter 4 .2: Commuting Patterns, 1994, Manitowoc County

Area	Commute Into	Commute From	Net Commute
Brown Co.	1,106	497	-609
Calumet Co.	1,370	507	-863
Kewaunee Co.	275	268	-7
Sheboygan Co.	2,395	538	-1,857
Elsewhere	1,030	88	-942
Total	6,176	1,898	-4,278
Work w/in Marinette Co.	31,673		

Source: Wisconsin Department of Workforce Development, Bureau of Workforce Information, *Wisconsin's Commuting Patterns*, 1994; and Bay-Lake Regional Planning Commission, 2002.

In 1994, 3,842 persons commuted into Calumet County (Table 4.3). However, 8,581 commuted out of the county, primarily traveling to Outagamie County. This creates a net loss of employees for the county of 4,739 persons.

Table Chapter 4 .3: Commuting Patterns, 1994, Calumet County

Area	Commute Into	Commute From	Net Commute
Outagamie Co.	4,691	817	-3,874
Brown Co.	316	348	32
Winnebago Co.	2,622	375	-2,247
Fond du Lac Co.	204	570	366
Manitowoc Co.	194	1,370	1,176
Sheboygan Co.	554	362	-192
Total	8,581	3,842	-4,739
Work w/in Calumet Co.	8,689		

Source: Wisconsin Department of Workforce Development, Bureau of Workforce Information, *Wisconsin's Commuting Patterns*, 1994; and Bay-Lake Regional Planning Commission, 2002.

Occupation

In 2000, the majority of employed persons in the city of Kiel were either production, transportation, and material moving (32.4 percent); in management, professional and related occupation (24.3 percent); or they were in sales and office (22.6 percent) (Table 4.4). In addition, there was greater than 12 percent employment in the service occupations. Kiel's employment statistics are similar to those found in Manitowoc and Calumet counties.

Table Chapter 4 .4: Employed Persons by Occupation, 2000, City of Kiel and Manitowoc & Calumet Co.

Occupation	City of Kiel		Manitowoc County		Calumet County	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Management, professional, and related	448	24.3	10,448	24.3	231	26.0
Service	224	12.2	5,793	13.5	101	11.4
Sales and office	416	22.6	8,880	20.7	160	18.0
Farming, fishing, and forestry	37	2.0	820	1.9	20	2.3
Construction, extraction, and maintenance	121	6.6	4,264	9.9	96	10.8
Production, transportation, and material moving	596	32.4	12,748	29.7	279	31.5
Total	1,842	100.0	42,953	100.0	887	100.0

Source: U.S. Bureau of the Census, 2000 Census, DP-3; and Bay-Lake Regional Planning Commission, 2002.

Industry

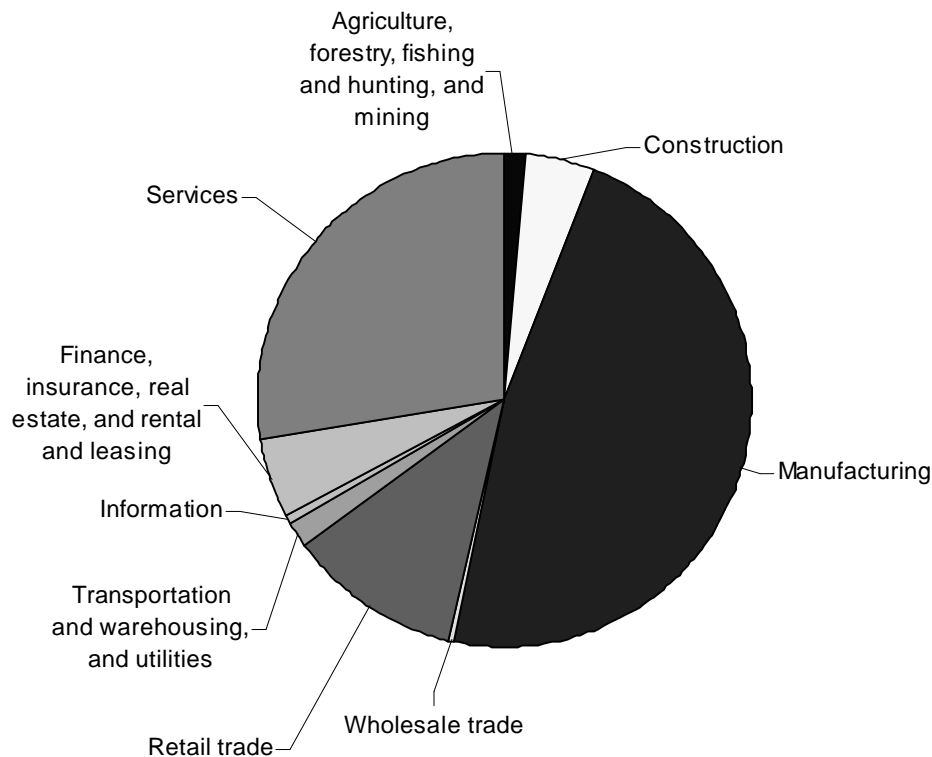
Table 4.5 displays the number and percent of employed persons by industry group in the city of Kiel, and Manitowoc and Calumet counties for 2000. The greatest percentage of employment for the city of Kiel was in the manufacturing industry with 46.7 percent. The second greatest employment group for the city of Kiel was in the education, health and social services with 13.5 percent. Kiel's employment breakdown is very similar to the percentages found in for Manitowoc and Calumet counties. In addition, Figure 4.1 represents the percent employment by major industry group for the city of Kiel in the year 2000. Table 4.6 also lists the top employers found within the city of Kiel in 2002.

Table Chapter 4 .5: Employed Persons by Industry Group, 2000, City of Kiel and Manitowoc & Calumet Co.

Industry	City of Kiel		Manitowoc County		Calumet County	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Agriculture, forestry, fishing and hunting, and mining	26	1.4	1,814	4.2	84	9.5
Construction	78	4.2	2,566	6.0	54	6.1
Manufacturing	861	46.7	15,123	35.2	348	39.2
Wholesale trade	4	0.2	1,052	2.4	16	1.8
Retail trade	204	11.1	4,287	10.0	90	10.1
Transportation and warehousing, and utilities	31	1.7	1,910	4.4	38	4.3
Information	11	0.6	618	1.4	6	0.7
Finance, insurance, real estate, and rental and leasing	95	5.2	1,392	3.2	18	2.0
Professional, scientific, mngmnt, admin, and waste mngmnt serv	107	5.8	1,642	3.8	15	1.7
Educational, health and social services	249	13.5	7,209	16.8	122	13.8
Arts, entertainment, recreation, accommodation and food serv	92	5.0	2,714	6.3	58	6.5
Other services (except public administration)	47	2.6	1,594	3.7	29	3.3
Public administration	37	2.0	1,032	2.4	9	1.0
Total	1,842	100.0	42,953	100.0	887	100.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-3; and Bay-Lake Regional Planning Commission, 2002.

Figure Chapter 4 .1: Percent Employment by Industry Group, 2000, City of Kiel



Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-3; and Bay-Lake Regional Planning Commission, 2002.

Table Chapter 4 .6: City of Kiel's Largest Employers in 2002.

Company	Product or Service	Size
Sargento Cheese	Specialty Cheese Packaging	320
Kiel School District	Education	190
Stoelting Inc.	Cheese, Dairy, soft-serve equipment	155
Land O' Lakes Dairy Foods	Produce Packaged Cheese	150
Household Utilities (HUI)	Hi-tech Metal Fabricators	110
K&M Piggly Wiggly	Grocery Store	90
H.G. Weber & Co., Inc.	Paper Handling	89
Amerequip Corporation	Farm & Lawn Equipment Parts	87
A.A. Laun Furniture	Wood Furniture	73

Source: Kiel Area Association of Commerce; and Bay-Lake Regional Planning Commission, 2002.

Unemployment Rate

The civilian labor force for Manitowoc County has experienced both slight increases and decreases since 1990 (Table 4.7). The unemployment rate reached its lowest points in 1998 and 2000 with 3.5 percent of the labor force unemployed (Figure 4.2). For the period 1990 to 2001, the civilian labor force increased 10 percent and the number of employed increased 9.4 percent. The number of unemployed decreased 23.4 percent from 1990 to 2000 and increased in 2001 with 5.7 percent of the labor force unemployed. That is the highest rate since 1992.

The civilian labor force for Calumet County has experienced significant increases and decreases since 1990 (Table 4.8). The unemployment rate reached its lowest point in 1999, with 2.3 percent

(Figure 4.3). For the period 1990 to 2001, the civilian labor force increased by 21.3 percent and the number of employed increased 25 percent. The number of unemployed decreased by 55 percent from 1990 to 2000, but increased in 2001 with 3.9 percent of the labor force unemployed. The 2001 rate is the highest it has been in Calumet county since 1995.

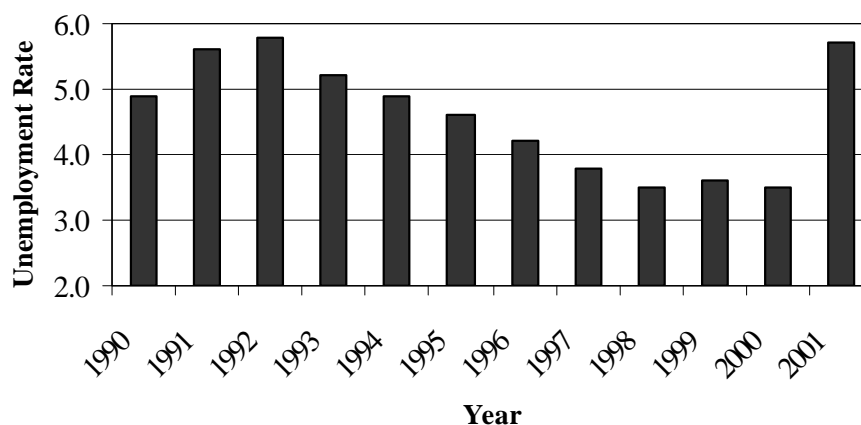
Since September 2001, the state of Wisconsin and Manitowoc and Calumet counties unemployment rates increased with the largest sector affected being within manufacturing. It is anticipated that the unemployment rate will stabilize, resulting in some negative impacts on the city's residents within the early timeframe of this plan. Stability in the world events will play a key role in the regions recovery.

Table Chapter 4 .7: Average Civilian Labor Force Estimates, 1990-2001, Manitowoc County

Year	Civilian Labor Force	Unemployed	% Civilian Labor Force	Employed
1990	41,407	2,036	4.9	39,371
1991	41,700	2,335	5.6	39,365
1992	41,437	2,389	5.8	39,048
1993	41,525	2,160	5.2	39,365
1994	44,404	2,161	4.9	42,243
1995	44,840	2,083	4.6	42,757
1996	44,656	1,884	4.2	42,772
1997	44,694	1,691	3.8	43,003
1998	45,563	1,590	3.5	43,973
1999	43,594	1,555	3.6	42,039
2000	44,364	1,559	3.5	42,805
2001	45,674	2,616	5.7	43,058

Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimates, for years cited; and Bay-Lake Regional Planning Commission, 2002.

Figure Chapter 4 .2: Unemployment Rate, 1990-2001, Manitowoc County



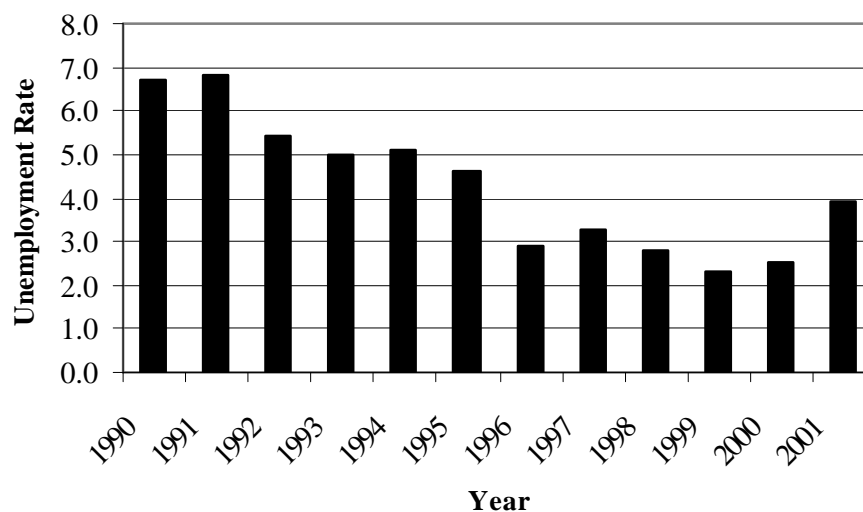
Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimates, 1990-2000; and Bay-Lake Regional Planning Commission, 2002.

Table Chapter 4 .8: Average Civilian Labor Force Estimates, 1990-2001, Calumet County

Year	Civilian Labor Force	Unemployed	% Civilian Labor Force	Employed
1990	21,358	1,430	6.7	19,928
1991	21,508	1,458	6.8	20,050
1992	22,244	1,211	5.4	21,033
1993	22,882	1,154	5.0	21,728
1994	23,780	1,204	5.1	22,576
1995	24,268	1,105	4.6	23,163
1996	24,794	712	2.9	24,082
1997	25,081	826	3.3	24,255
1998	25,104	691	2.8	24,413
1999	24,681	558	2.3	24,123
2000	25,330	642	2.5	24,688
2001	25,899	1,000	3.9	24,899

Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimates, for years cited; and Bay-Lake Regional Planning Commission, 2002.

Figure Chapter 4 .3: Unemployment Rate, 1990-2001, Calumet County



Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimates, 1990-2000; and Bay-Lake Regional Planning Commission, 2002.

Employment Forecast

In 1996, the Wisconsin Department of Workforce Development created projections for industries, occupations, and the labor force called the *Northeast Wisconsin Projections: 1992-2005*. These projections are for all of Northeast Wisconsin, including Manitowoc County. This document's projections did not anticipate a national recession or the United States at war. According to the Department of Workforce Development, in 2005, the manufacturing industry is projected to continue to be the industry with the largest share of employment - and it was the most affected by the national recession. Although manufacturing jobs were anticipated to

continue to increase overall, the rate has declined as businesses become more “streamlined/down sized” in the efforts to produce more goods while lowering unit production costs as well as in their efforts to react to the national recession. Occupations in manufacturing are still however expected to move away from the general labor positions of the past to more semi-skilled and skilled operator and technician jobs. This is due primarily to production processes that are more efficient with newer available technologies and the need to become more competitive in a tighter market.

Service industry employers are still anticipated to add needed jobs to the region’s labor market. The largest divisions within this industry group will be business and health services with a similar growth in professional or technical jobs. With the aging of the population, the demand for such services will continue to increase. The overall health of the Northeast Wisconsin economy is projected to remain healthy with some anticipated fluctuations within the occupation and industry sectors.

Local Employment Forecast

In 1990, employment data was available for each business within the city of Kiel and the number of employees each employer had. This data is now suppressed to ensure confidentiality of individual employers. Additionally, U.S. Census information only provides the employment status of residents of the city, not the employment numbers of businesses within the city. The Kiel Area Association of Commerce and City of Kiel staff provided the majority of the local employment data for this plan.

In determining the economic health of the city, it is important to review the number of jobs available within the city. Although precise data is not readily available some general assumptions can be made with a high degree of confidence. It is reasonable to say, that the city should develop both a marketing strategy to attract business and industry, and a retention program for high quality jobs that currently exist. By maintaining its job diversity and increasing the number of high paying manufacturing jobs, the employment forecast for the city should improve throughout the planning period.

Median Household Income

In 1989, the median household income was \$30,245 for the city of Kiel in Manitowoc County; and \$29,922 for the city of Kiel in Calumet County (Table 4.9). The median household income for the State as a whole was \$29,442 in 1989. By 1999, the median household income for the entire city of Kiel increased up to \$47,152. This rise in the median household income represented a 46.3 percent increase for the city in Manitowoc County; and a 47.8 percent increase for the portion of Kiel in Calumet County.

Table Chapter 4 .9: Median Household Income, 1989 and 1999, City of Kiel & Selected Areas

Area	1989	1999
City of Kiel (Manitowoc)*	\$30,245	\$44,239
City of Kiel (Calumet)*	29,922	44,239
City of New Holstein	32,277	43,180
Town of New Holstein	36,563	58,050
Town of Schleswig	33,810	52,841
Manitowoc County	27,467	43,286
Calumet County	34,050	52,569
State of Wisconsin	\$29,442	\$43,791

* 1989 data includes city portions by county, 1999 data includes citywide information.

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF 3A, Table P080A; U.S. Bureau of the Census, 2000 Census of Population and Housing, DP-3; and Bay-Lake Regional Planning Commission, 2002.

Personal Income

The per return income for residents in the city of Kiel has increased 15.8 percent for the period 1997 to 2000 (Table 4.10). This increase is greater than all other areas compared for the same period, except for the town of New Holstein and Calumet County as a whole. The 2000 personal income for the city of Kiel was lower than all areas compared, with the exception of the city of New Holstein. Per return income is based on income tax returns filed in the year cited to the Wisconsin Department of Revenue.

Table Chapter 4 .10: Municipal Per Return Income, 1997-2000, City of Kiel & Selected Areas

Area	1997	1998	1999	2000	Percent Change 1997-2000
City of Kiel	30,667	31,998	34,562	35,509	15.8
City of New Holstein	29,267	31,047	32,040	33,744	15.3
Town of New Holstein	32,361	36,013	36,623	38,855	20.1
Town of Schleswig	34,682	36,322	43,769	42,047	21.2
Manitowoc County	31,695	33,886	35,683	36,397	14.8
Calumet County	36,064	40,010	41,154	43,504	20.6
Wisconsin	34,716	36,996	38,930	40,570	16.9

Source: Wisconsin Municipal Per Return Income Report, for years cited, Wisconsin Department of Revenue, Division of Research and Analysis; and Bay-Lake Regional Planning Commission, 2002.

ECONOMIC BASE ANALYSIS

Economic Sectors and Divisions

To understand the future employment trend in the city of Kiel, an understanding of the local and county economy is required as detailed in the following Location Quotient Analysis. The Economic Base Analysis technique divides the economy into basic and non-basic sectors. The basic sector is made up of local businesses that are dependent on external factors. Manufacturing and local resource-oriented firms (like logging or mining) are usually considered to be basic sector firms because their fortunes depend largely upon non-local factors, and they usually export their goods. The non-basic sector, in contrast, is composed of those firms that depend largely upon local business conditions. Economic Base Theory asserts that the means of strengthening and growing the local economy is to develop and enhance the basic sector.

There are nine basic economic divisions that are used for Economic Base Analysis. There are four goods-producing sectors: agriculture, forestry, and fishing; mining; construction; and manufacturing. There are five service-producing sectors: transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services.

Location Quotient Analysis

The Location Quotient Analysis technique compares Manitowoc County and Calumet County to the United States. This allows for identifying specialization in the Manitowoc County or Calumet County economy (Table 4.11 and Table 4.12). If the location quotient (LQ) is less than 1.0, all employment is considered non-basic, therefore that industry is not meeting local demand for a given good or service. An LQ equal to 1.0 suggests that the local employment is exactly sufficient to meet the local demand for a given good or service, employment is still considered non-basic. An LQ greater than 1.0 suggests that local employment produces more goods and services than the local economy can use, therefore these goods and services are exported to non-local areas, which makes them basic sector employment.

Table Chapter 4 .11: Employment by Industry Group, 1988-1998, Manitowoc County and United States, Location Quotient Analysis

Item	1988 Employment	Percent of Total	1998 Employment	Percent of Total	Percent Change 1988-1998	1988 Location Quotient	1998 Location Quotient
Total full and part-time employment	39,790	100.0	46,631	100.0	17.2		
Farm employment	2,613	6.6	2,062	4.4	-21.1	2.7	2.3
Nonfarm employment	37,177	93.4	44,569	95.6	19.9	1.0	1.0
Private employment	33,036	83.0	39,974	85.7	21.0	1.0	1.0
Ag. Services, forestry, fishing, & other	377	0.9	485	1.0	28.6	0.9	0.8
Mining	129	0.3	130	0.3	0.8	0.4	0.5
Construction	1,455	3.7	2,232	4.8	53.4	0.7	0.9
Manufacturing	11,899	29.9	14,480	31.1	21.7	2.0	2.5
Transportation and public utilities	1,278	3.2	2,038	4.4	59.5	0.7	0.9
Wholesale trade	1,285	3.2	1,386	3.0	7.9	0.7	0.6
Retail trade	6,739	16.9	7,169	15.4	6.4	1.0	0.9
Finance, insurance, and real estate	1,421	3.6	1,812	3.9	27.5	0.5	0.5
Services	8,453	21.2	10,242	22.0	21.2	0.8	0.7
Government and government enterprises	4,141	10.4	4,595	9.9	11.0	0.7	0.7
Federal, civilian	192	0.5	187	0.4	-2.6	0.2	0.2
Military	418	1.1	306	0.7	-26.8	0.5	0.5
State and local	3,531	8.9	4,102	8.8	16.2	0.8	0.8
State	248	0.6	230	0.5	-7.3	0.2	0.2
Local	3,283	8.3	3,872	8.3	17.9	1.1	1.1

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, REIS 1969-98; and Bay-Lake Regional Planning Commission, 2002.

Table Chapter 4 .12: Employment by Industry Group, 1988-1998, Calumet County and United States, Location Quotient Analysis

Item	1988 Employment	Percent of Total	1998 Employment	Percent of Total	Percent Change 1988-1998	1988 Location Quotient	1998 Location Quotient
Total full and part-time employment	15,117	38.0	16,720	35.9	10.6		
Farm employment	1,643	4.1	1,048	2.2	-36.2	1.7	1.2
Nonfarm employment	13,474	33.9	15,672	33.6	16.3	0.3	0.3
Private employment	12,245	30.8	14,221	30.5	16.1	0.4	0.4
Ag. Services, forestry, fishing, & other	126	0.3	(D)	--	--	0.3	--
Mining	37	0.1	(D)	--	--	0.1	--
Construction	508	1.3	508	1.1	0.0	0.2	0.2
Manufacturing	6,105	15.3	6,105	13.1	0.0	1.0	1.1
Transportation and public utilities	282	0.7	282	0.6	0.0	0.2	0.1
Wholesale trade	574	1.4	574	1.2	0.0	0.3	0.3
Retail trade	2,044	5.1	2,044	4.4	0.0	0.3	0.3
Finance, insurance, and real estate	474	1.2	474	1.0	0.0	0.2	0.1
Services	2,095	5.3	2,095	4.5	0.0	0.2	0.1
Government and government enterprises	1,229	3.1	1,229	2.6	0.0	0.2	0.2
Federal, civilian	68	0.2	68	0.1	0.0	0.1	0.1
Military	174	0.4	174	0.4	0.0	0.2	0.3
State and local	987	2.5	987	2.1	0.0	0.2	0.2
State	13	0.0	13	0.0	0.0	0.0	0.0
Local	974	2.4	974	2.1	0.0	0.3	0.3

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, REIS 1969-98; and Bay-Lake Regional Planning Commission, 2002.

Threshold Analysis

Export Base (Basic Employment)

There are three areas within the 1998 Manitowoc County economy that can be considered basic employment areas: farm employment, manufacturing, and local government (Table 4.11). There are two areas in the 1998 Calumet County economy that can be considered basic employment areas: farm employment, and manufacturing (Table 4.12). These areas produce more goods and services than the local economies can use.

When Location Quotients increase over time, this suggests that the economy is getting closer to reaching and exceeding local demand. Having basic employment also suggests that if a downturn in the local economy occurs, these sectors will not be strongly affected because their dependent more on non-local economies. Having strong basic sector employment and industry will strengthen the local economy. However, when Location Quotients decrease over time, this suggests that the economy is no longer meeting local demand. For example, retail trade in Manitowoc County went from 1.0 in 1988 to 0.9 in 1998 (Table 4.11).

Non-Basic Employment

Under private employment in Manitowoc County, there are nine areas that can be considered non-basic: agriculture services, forestry, fishing, and other; mining; construction; transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; services; and

government and government enterprises. These nine industries are not meeting local demand for a given good or service. For example, the wholesale trade industry LQ actually decreased since 1988, however the Manitowoc County economy could support more of this industry (Table 4.11).

In Calumet County, the non-farm employment, as well as the private employment under it, can be considered non-basic (Table 4.12). More specifically, there are seven areas under the private employment that can be considered non-basic: construction; transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; services; and government and government enterprises. These industries are not meeting local demand for a given good or service.

STRENGTHS AND WEAKNESSES ANALYSIS

This element of the plan looks at economic factors within the city and its planning area. These factors may greatly influence the future economic climate over the next two decades and thus are important for the city to identify as part of this plan in order to understand exactly the city's continued economic viability and future draw for new businesses. This portion of the economic element gives a perspective from a business point of view and reflects concerns, issues, questions current and future business owners would ask about a community in formulating a plan, or before expanding their business. Within these categories are assumptions and statements based on information available on the community, as well as information derived from the local Plan Commission.

Physical Capabilities

Utilities

Strengths:

The city provides water to its residents with three municipal wells that meet or exceed minimum standards of state and federal agencies. Public sanitary sewer and storm sewer are also provided. All citizens of the city are provided with electricity by the Kiel Utilities, and natural gas is provided by Wisconsin Public Service. The utilities are considered adequate for future developments.

Weaknesses:

Presently, there are no identified weaknesses for utilities

Telecommunications

Strengths:

Cable and fiber optics are available within the city for telecommunications. Telephone service (local and long distance) is provided.

Weaknesses:

The local calling area is considered too small. The city's internet and cable access may need improvement in the future.

Transportation

Strengths:

Within an hour the city has access to the cities of Milwaukee, Green Bay, Manitowoc, Sheboygan, Fond du Lac and Appleton. The city contains many wide-open streets and has access to State Highways 57/32, 67 and 149, which are pathways for highway exposure. The city also has access to rail service and air service is available in the city's of Green Bay, Milwaukee, Manitowoc or Sheboygan.

Weaknesses:

There is limited parking in several downtown locations and portions of the local street network need to be maintained. The city is not located adjacent to an interchange, and is located approximately 12 minutes for Interstate Highway 43. There is also poor access to the west from the city. There is also some uncertainty on the long-term rail access to the city.

Local Labor Force Characteristics

Strengths:

Low unemployment rates within Manitowoc(3.6 percent) and Calumet (2.3 percent) counties and the state. The number of employed persons for the counties also grew over the last ten years (Manitowoc 7 percent, Calumet 21 percent). The labor pool in the area is skilled and contains a strong work ethic.

Weaknesses:

Being a small community it can be difficult to have an adequate labor force in good economic times. The workforce in the area is older. There is a lack of retention of hometown people (ie. college students). There is a shortage of industrial skilled workers (electricians, welders, etc.). In addition, labor shortages may occur due to low numbers in the age group of 16-24 year olds. Lack of industry and other facilities in the area makes Kiel less attractive to young workers. Unemployment rates have also increased since September 2001.

Industrial/Commercial Site Availability

Strengths:

There is plenty of room available for industrial/commercial growth. The city has identified future areas for both industrial and commercial sites/expansion. Each of the areas provides for highway access, ease of access and good visibility. STH 57 provides a more than adequate transportation route for these growth areas. The basic services (water, sewer, etc.) are also available at these sites.

Weaknesses:

It can be difficult to draw in businesses due to Kiel's location and small size. Kiel also lacks an interstate highway nearby (I-43 is approximately 16 miles away) and has poor highway access west of the city.

Programmatic Capabilities

Existing Business Base Analysis

The city has approximately 94 acres dedicated to industrial and commercial uses, or approximately six percent of its developed lands. Business within the city include wholesaling, manufacturing, restaurants, taverns, retail stores, etc. The Kiel Area Association of Commerce provides support on the present and future business growth and appearance within the city.

Available Government Services

The city has an adopted Comprehensive Plan, as well as an adopted Subdivision Ordinance, Zoning Ordinance, Floodplain Ordinance and Shoreland-Wetland Ordinance. County Zoning Ordinances (Manitowoc and Calumet) are in effect within the adjacent planning area. Police, fire and ambulance services are provided by the city. Postal services are provided within the city. Solid waste service is provided by Superior Services. There is curbside pickup of recyclable once every other week. Government assistance comes from the City Council, Plan Commission, City Administrator, Bay-Lake Regional Planning Commission and various other planning agencies who assist the city on writing grant applications and monitoring these grants (park acquisitions/improvements, community developments, housing improvements, etc).

Specific Inhibitors To Economic Development

The I-43 interchange is located a considerable distance from the city thus has low visibility for those businesses wanting visibility to through/transient traffic. The east-west highway flow is considered less than adequate. There is a lack of adequate parking in several areas of the downtown area. The downtown areas seem to be decaying and need to be revitalized to attract businesses. Location in relation to larger cities, along with these larger cities ability to offer more incentives than Kiel.

Training Programs

Strengths:

The city has access to training from Lake Shore Technical College, UW-Manitowoc, Silver Lake College, UW-Green Bay, St. Norbert College, the UW-Extension Courses (providing education and training seminars and courses), Northeast Technical College, Lakeland College, Fox Valley Technical College, etc.

Weaknesses:

Many of the formal training sites are either under 30 minutes or more than an hour (by automobile) away.

Financial Capabilities

Incentives For Development

The city of Kiel has an established Tax Incremental Finance (TIF) District and a Revolving Loan Fund.

Banking Capability And Capacity

The city and its residents have access to numerous lending firms throughout the surrounding area, state and nation. With today's linking of lending agencies via telecommunication's networks and other "high speed" services a borrower can have a lender in distant locations to include other nations.

A common problem is the "template" approach to many lending agencies. Borrowers fitting a standard criteria are quickly approved for loans, while those deviating or not meeting the well defined criteria are often denied a loan. The local lender does not have the flexibility they once held years ago, especially since many lenders no longer personally "know" their borrower due to the availability of high speed telecommunications.

Quality of Life

Housing Prices

According to the Realtors Association, the average home being sold in Kiel in 2001 was approximately \$69,000. For additional information on housing prices, contact any local realtor.

Aesthetics

The city is surrounded by a rural countryside with the Sheboygan River meandering through the city. The city has an abundance of parks and various recreational facilities. Local festivities include Kiel German Days, Kiel Parade, Ice Sculpturing Contest, Summer concert series, etc. The residents of the city are very active and provide for positive community support. Overall, the city of Kiel is considered a family oriented community that has a "small town" feel.

Environment

Within the city and its planning area exists areas of woodlands, farm fields, the Sheboygan River, several small ponds and creeks, and acres of wetlands. The waters are open to fishing, while the lands are open to hunting and hiking. The city and the surrounding counties have ordinances and plans protecting and enhancing the environment. The city has a low crime rate and is considered a safe and secure place to live.

Education And Health Care

The city is within the Kiel Area School District. Zielanis Elementary, Kiel Middle School and Kiel High School are located within city. In addition, the city is located within quick commuting distance to other quality educational facilities. Health care is provided by clinics located in the city, or by hospital facilities in nearby Plymouth, Chilton, Sheboygan, Manitowoc and Fond du Lac. Dental facilities also exist within the city of Kiel.

SITES FOR BUSINESS AND INDUSTRIAL DEVELOPMENT

Existing Site Inventory and Analysis

The city's commercial lands total 54 acres consisting of retail stores, doctors, restaurants, bars, car dealerships, banks, etc.. The city has a well-defined commercial core due to its location along the transportation corridors of STH 57/32 and STH 67. Development along these corridors is somewhat dense and well defined. Several of the structures along these corridors are beginning to

show signs of aging and need upgrading. Also, several of the downtown structures are vacant and are deteriorating. Efforts should be made to vacate and/or upgrade several of the structures and revitalize the downtown area in order to make it thrive. The city should also address improving upon the architectural characteristics of the downtown areas making the commercial centers more recognizable.

The city also has well defined industrial areas that total approximately 40 acres of land, consisting primarily of businesses which are associated with the fabrication and wholesaling of products (i.e. Amerequip, Land O' Lakes Dairy Foods, Sargento Foods, etc.). The city has identified several areas for industrial development and contains the appropriate infrastructure available to accommodate future industries. The city will review industrial uses on a case by case basis, ensuring that the city as a whole will not be negatively affected by the future use.

Evaluation of Environmentally Contaminated Sites For:

Recently the DNR and EPA have been urging the clean up of contaminated commercial or industrial sites so they may be utilized for more productive uses. According to the WDNR list of Leaking Underground Storage Tanks (LUST) sites, the city of Kiel currently has 20 of these sites. The city also has 9 sites that are designated as part of the WDNR Environmental Repair Program (ERP). These sites are areas other than LUST's that have contaminated soil and/or groundwater. In addition, there are 34 areas throughout the city in which spills have occurred that have potentially contaminated the soil. Refer to the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the WDNR website, or contact the WDNR for a detailed list of these contaminated sites.

Designation of Business and Industrial Development

Commercial Uses:

The comprehensive plan has identified, for the city, that throughout the planning period the city will continue to work towards establishing well defined commercial areas/corridors to better enhance the city's look, to minimize conflicts between differing uses, and to maximize service efficiency. Fremont Street and STH 67 are the primary areas identified for infill and expansion along their corridors for future commercial businesses. Future commercial establishments should be directed to these identified areas, however alternative sites are available. Locations shall have good visibility and access, and may require additional buffering and landscaping to meet the city's desired vision. In addition, architectural requirements are an option for new and upgraded structures in order to revitalize the city's downtown .

Industrial Uses:

The city of Kiel has several well-defined areas for industrial activities accommodating existing businesses and any future industries. Future industries that locate near the city's entranceways should be landscaped with a buffer to add to the aesthetic quality of the site and not negatively impact a community "Doorway". Also, it is important that if industries are to locate within the city, that a detailed landscape plan, signage plan, street access plan and lighting plan be completed that would fit the character of the city and not negatively impact adjacent properties or the city as a whole.

Acreage Projections

The city has designated acreage associated with highway/community business needs as well as the needs for industrial development. For more information see the General Plan Design in the Land Use element (Chapter 8) of this plan that has specified locations within the city along with approximate acreage totals.

COMMUNITY FINANCES

A community must be concerned about its ability to generate sufficient public revenues to provide the types and levels of services demanded by its citizens. Tables 4.13, 4.14 and 4.15 provide a history of the taxes levied in the city of Kiel. The full value increased 42.9 percent for the period 1995 to 2000 for the city of Kiel in Manitowoc County. The total property tax also increased 25.3 percent for the same period. The full value for the city of Kiel in Calumet County increased 21.4 percent during the same period, which is an increase from the 1999 full value of 15,420,900. Also, the total property tax for Kiel in Calumet County decreased by less than 1.0 percent during the same period.

Table Chapter 4 .13: Comparative Tax Appropriations, 1995-2000, City of Kiel (Manitowoc County)

Year Levied	Full Value	Percent Assm't Level	Total Property Tax	State Tax Credit	Full Value Rate		Taxing Jurisdiction Share				
					Gross	Effective	School	Vocational	County	Local	Other
1995	96,917,900	98.73	2,333,741	125,106	0.02407	0.02278	1,145,718	129,934	408,405	231,896	417,788
1996	104,799,400	93.41	2,016,140	180,729	0.01923	0.01751	805,857	135,449	414,113	250,271	410,450
1997	112,501,300	90.96	2,159,280	169,978	0.01919	0.01768	812,087	141,243	442,977	296,405	466,569
1998	123,402,600	85.36	2,388,691	158,800	0.01935	0.01807	850,384	156,799	539,907	307,825	533,777
1999	131,485,800	82.62	2,815,132	146,969	0.02141	0.02029	1,055,718	163,457	567,833	339,488	688,635
2000	138,457,900	82.11	2,924,059	156,505	0.02111	0.01998	1,079,084	179,389	613,536	369,731	682,319

Source: Wisconsin Department of Revenue, *City, Village and City Taxes*, for years cited; and Bay-Lake Regional Planning Commission, 2002.

Table Chapter 4 .14: Comparative Tax Appropriations, 1995-2000, City of Kiel (Calumet County)

Year Levied	Full Value	Percent Assm't Level	Total Property Tax	State Tax Credit	Full Value Rate		Taxing Jurisdiction Share				
					Gross	Effective	School	Vocational	County	Local	Other
1995	12,930,600	103.30	316,021	20,758	0.02443	0.02283	184,645	20,940	70,478	37,372	2,586
1996	13,754,600	98.60	266,986	29,867	0.01941	0.01723	131,422	22,089	69,927	40,797	2,751
1997	13,882,100	96.27	264,474	28,244	0.01905	0.01701	126,496	22,001	67,650	45,551	2,776
1998	15,755,600	85.33	290,368	25,430	0.01842	0.01681	138,373	25,514	73,241	50,089	3,151
1999	15,420,900	81.23	312,874	23,596	0.02028	0.01875	162,381	25,142	69,424	52,843	3,084
2000	15,700,400	80.59	314,111	24,600	0.02000	0.01843	158,094	26,282	72,895	53,699	3,140

Source: Wisconsin Department of Revenue, *City, Village and City Taxes*, for years cited; and Bay-Lake Regional Planning Commission, 2002.

The ability to finance community projects is measured by general obligation debt capacity. According to the Wisconsin Constitution there are limits on how much a municipality may borrow. They are limited to an amount equal to five percent of the equalized value, or full value, of the unit of government. The city's existing debt as of December 31, 2000, was \$5,240,611, with a debt margin of \$2,467,304.

Table Chapter 4 .15: Public Indebtedness, 1998-2000, City of Kiel

Year	Full Value	Debt Limit*	Existing Debt	Debt Margin
1998	139,158,200	6,957,910	2,387,977	4,569,933
1999	146,906,700	7,345,335	2,498,294	4,847,041
2000	154,158,300	7,707,915	5,240,611	2,467,304

*Debt Limit equals five percent of the full value.

Source: Wisconsin Department of Revenue, Bureau of Local Finance Assistance, Equalized Value and Debt Limit Value, for years cited; and Bay-Lake Regional Planning Commission, 2002.

Chapter 5 - TRANSPORTATION

INTRODUCTION

This section of the Comprehensive Plan presents the communities transportation goals, objectives, and policies and compares local plans to transportation plans developed at the state, regional and county level. This chapter also inventories existing transportation facilities that serve the City of Kiel in Manitowoc County and addresses the future transportation needs and concerns of the community. The inventory includes descriptions of the various modal elements of the city's transportation system. Those elements include transit systems (where applicable), elderly and disabled transportation system, intercity bus, bicycle transportation, pedestrian transportation, waterborne, rail, air service, trucking, and, most importantly, a detailed description of the city's street system. The detailed description of the highway and street system (Map 5.1) includes the functional classification of streets within the city, traffic counts, traffic flow capacity, vehicle crashes, access controls, and an evaluation of the current internal traffic circulation system. This chapter also includes an inventory and analysis of applicable transportation plans, including county functional and jurisdictional studies, transportation corridor plans, rural transportation plans, state and local airport plans, state railroad plans, state, regional and local bicycle plans, state and local pedestrian plans, state and local transit plans, as well as any other special transportation plans that are applicable to the city. At the conclusion of the chapter, specific transportation system recommendations are presented and include design standards, recommended improvements, capacity additions to existing facilities, new street alignments, highway expansion projects, and improvements to other transportation modes.

SUMMARY AND IMPLICATIONS

Through its comprehensive planning program the city of Kiel seeks to establish a safe and efficient transportation system for motor vehicles, pedestrians, and bicycles that is compatible with the city's adopted 20 Year Comprehensive Plan.

The transportation facility inventory conducted for the city of Kiel has established that the city currently has jurisdiction over and responsibility for approximately 23-miles of local streets. The city's jurisdictional responsibility relative to its local street system includes maintenance, repair and reconstruction of the streets as needed. The primary funding source for maintaining, rehabilitating and reconstructing the local street system in the city of Kiel is the state's disbursement of general transportation aids. The state provides a payment to the city for costs associated with such activities as road and street reconstruction, filling potholes, snow removal, and marking pavement. In addition, the city's local transportation system is complimented by STH 57/32, STH 67 and STH 149, and the county trunk highway system, which provide access to the major urban areas located within Manitowoc and Calumet counties, the region and the state.

The has developed an extensive system of trails and routes that serve bicyclist and pedestrians, alike.

The transportation facility inventory conducted for this plan also determined that the city has readily available and efficient access to multi-modal transportation services and facilities including; transportation services for the city's elderly and disabled residents (provided by

Manitowoc County); private intercity bus service (Greyhound connections in the cities of Green Bay, Manitowoc and Sheboygan); local air service (Door County's Cherryland Airport); and, regional private and public passenger-air service Manitowoc County Airport, Austin Straubel Airport at Green Bay, Sheboygan County Airport, and General Mitchell Field in Milwaukee.

TRANSPORTATION STRATEGY

Transportation System Development Goals, Objectives, Policies and Programs Transportation in its many forms is the link that connects the city's land uses into a cohesive pattern. The following transportation objectives have been adopted to represent and define the importance of transportation in achieving the goals of the *City of Kiel 20 Year Comprehensive Plan*.

Goal:

To establish a safe and efficient transportation system for motor vehicles, pedestrians, and bicycles that is compatible with the city's adopted 20 Year Comprehensive Plan.

Objectives:

1. To develop a transportation system that provides for all transportation modes.
2. To develop transportation system that is harmonious with surrounding land uses.
3. To provide for convenient and efficient vehicular movement near all commercial, industrial, and public facility locations.
4. Provide for adequate traffic controls (i.e. turning lanes, frontage streets) near businesses located along the STH 32/57 and STH 67 corridors.
5. To provide and maintain aesthetically pleasing transportation corridors.
6. Provide a safe system of bicycle paths and designated bicycle routes throughout the city.
7. To provide safe and convenient pedestrian traffic movement.
8. To plan for and designate future street rights-of-way within the city.
9. Develop an integrated multi-modal transportation system which, through its location, capacity, and design, will effectively serve the existing city land use development pattern and promote implementation of the city land use and transportation plan, meeting the anticipated transportation demand generated by existing and planned land uses.
10. Develop a balanced transportation system which will provide the appropriate types of transportation needed by all residents, regardless of income, physical ability or age, businesses, and industries at a level of service which will permit ready adaptation to changes in transportation demand and technology including travel needs and transportation management.
11. Develop a transportation system which reduces accident exposure and provides for increased travel safety.

12. Develop a transportation system which is economical and efficient, satisfying other objectives at the lowest possible environmental, social and financial public cost.
13. Develop a transportation system which minimizes adverse effects upon the property tax base and the natural and cultural resource base.
14. Develop a transportation system which preserves a high aesthetic quality and possesses a positive visual relation to the land.
15. Develop a transportation system that facilitates energy conservation while minimizing associated pollution effects.
16. Develop a transportation system that identifies and preserves multi-use utility and transportation corridors.

Policies:

1. The proper use of land for, and adjacent to, transportation facilities should be pursued in accordance with the city's land use development objectives. The disruption of future development should be minimized by utilizing transportation corridor preservation techniques.
2. The total amount of land used for transportation facilities should be minimized.
3. The dislocation of households, businesses, industries, and public and institutional buildings as caused by the reconstruction of existing or the construction of new transportation facilities and terminals should be minimized.
4. The destruction of, or negative impacts to, historic buildings and of historic, scenic, scientific, archaeological, and cultural sites as caused by the reconstruction of existing or the construction of planned transportation facilities and terminals should be minimized.
5. Transportation facility construction plans should be developed using sound geometric, structural, erosion control and landscape design standards which consider the aesthetic quality of the transportation facilities and the areas through which they pass.
6. Transportation facilities should be located to minimize impacts on visually pleasing buildings, structures, and natural-al features; and to enhance vistas to such features.
7. The location of transportation facilities in or through environmental corridors and natural areas should be avoided.
8. The loss of wetlands and environmental corridor land to transportation facility construction should be avoided.
9. Adverse impacts on significant natural habitat, with special attention to endangered species should be avoided.
10. Use of the natural resource base in the development of transportation facilities should be minimized.

11. Abandoned rail and/or utility right-of-way corridors should be preserved for future transportation facilities such as bicycle, pedestrian, transit, future rail service and/or arterial streets where such need is shown in the county land use plan.
12. Full use of all existing transportation facilities should be encouraged through low- and non-capital intensive techniques cooperatively fostered by government, business, and industry, prior to any capital-intensive or disruptive construction of new facilities.
13. The amount of transportation system operating and capital investment costs should be minimized.
14. The direct benefits derived from transportation system improvements should exceed the direct costs of such improvements using life-cycle costing methods.
15. The transportation system should provide access and service with choices of modes throughout the city in a way designed to reduce overall average travel times to destinations within the city and county.
16. Bicyclists and pedestrians should be accorded a comfortable margin of safety on all streets and highways by ensuring compliance with American Association of State Highway and Transportation Officials (AASHTO) and Manual of Uniform Traffic Control Devices (MUTCD) guidelines and standards.
17. Bicycle lanes or wide curb lanes should be constructed on arterial streets and highways.
18. Bicycle paths should be constructed to serve corridors not served by streets and highways. The most common uses are along rivers, lake shores, canals, utility rights-of-way, and within college campuses.
19. Bicycle routing should direct bicyclists to suitable highways and streets without significantly compromising directness. Established bicycle suitability models should be used.

Transportation Programs

Work with the Wisconsin Department of Transportation, and the Bay-Lake Regional Planning Commission to develop and maintain a long-range maintenance and improvement program for city streets.

Work with the Wisconsin Department of Transportation to provide an ongoing assessment of city street safety and efficiency.

Work with the Wisconsin Department of Transportation to ensure safe and efficient access to STH 32/57, STH 67 and major collector streets.

FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

The following section identifies the agencies as well as programs established and administered by those agencies to provide financial and technical support for the operation, maintenance and planning of the city's transportation system.

Wisconsin Department of Transportation

General Transportation Aid (GTA)

City street improvements, construction and maintenance is funded, in part, through the state's disbursement of general transportation aids. The state provides a payment to each county and municipality in the state that pays a portion of local governments' costs for such activities as road and street reconstruction, filling potholes, snow removal, grading shoulders, marking pavement, and repair of curb and gutters. The statutory 'rate per mile' is \$1,755 for 2002. Beginning in 2000, each municipality was required to establish and administer a separate segregated account from which moneys may be used only for purposes related to local highways and must deposit into that account all state or federal money for local highway purposes.

Local Mileage Certification

Each local government that increased or decreased the mileage of its roads and streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local road miles are required to file a certified plat or a certified statement that no mileage statements have occurred. Local road certification also includes the requirement to report major street rehabilitation and improvements, new construction and reconstruction of existing streets. Asphalt overlays of 1-inch or more are considered major improvements to the road. The city does not have to report crack filling or sealcoating projects.

Local Roads Improvement Program (LRIP)

This program provides funding to local units of government for the costs associated with improving seriously deteriorating county highways, town roads, and municipal streets in cities and villages under the authority of the local unit of government. Projects are required to have a minimal design life of 10 years. This is a biennial program and all funds are distributed the first year. Applications are submitted through the county highway commissioners by November 15 of the odd numbered years.

There are three entitlement components for funding road improvements: 1) County Highway Improvement component (CHIP); 2) Town Road Improvement component (TRIP); and 3) cities and villages under Municipal Street Improvement component (MSIP).

In addition LRIP funds three statewide discretionary programs; CHIP-D County Highway Discretionary Improvement Program; 2) Trip-D Town road Discretionary Improvement Program; and 3) MISP-D Municipal Street Discretionary Improvement Program for cities and villages.

All LRIP projects are locally let, with up to 50 percent of the costs reimbursed by WisDOT upon completion, and the remainder matched by the local unit of government. Eligible projects include but are not limited to design and feasibility studies, bridge replacement or rehabilitation, reconstruction, and resurfacing. Ineligible projects include, but are not limited to: new roads, seal coats, ditch repair, and/or curb and gutter construction.

Local Bridge Program

This program includes two separate programs 1) a statewide local bridge entitlement program and 2) a high cost local bridge program (High cost bridges are those that cost more than \$5 million and exceed 475 feet in length.)

This program funds 80 percent of project costs to replace and rehabilitate structures on the Federal Bridge Register, in excess of 20 feet. Bridges with sufficiency ratings less than 50 are eligible for replacement and those with sufficiency ratings less than 80 are eligible for rehabilitation.

Counties set priorities for funding within their area, with projects funded on a statewide basis.

Local bridge projects are solicited by local WisDOT transportation Office (District 3) staff in winter of the odd numbered years, with program approval in summer of the odd numbered years. The program has a three-year cycle.

Flood Damage Aids

This program provides local governments with financial assistance for replacing or improving roads or roadway structures that have had major damages caused by flooding.

County Forest Aid Program

This program provides assistance to counties that have eligible roads located within county forests. It is intended to defray the costs for the improvement and maintenance of public roads within a county forest.

Rural and Small Urban Area Public Transportation Assistance Program - Section 5311

Allocations to the State are set at the federal level. Funds may be used for operating assistance, and capital assistance. Eligible public transportation services include public transportation service operating or designed to operate in non-urbanized areas (a non-urbanized area is one that has a population of 50,000 or less).

Specialized Transportation Assistance Program for Counties - Section 85.21

Allocations under this formula program are based upon the proportion of the state's elderly and disabled population located in each county, subject to two minimums: no county can receive less than a ½ percent of the total annual appropriation; and no county can receive an allocation smaller than they received in 1992. A local match of 20 percent is required.

Eligible expenditures include:

- directly provided transportation service for the elderly and disabled;
- purchase of transportation service from any public or private organization;
- a user-subsidy for the elderly or disabled passenger for their use of the transportation service;
- volunteer driver escort reimbursement;
- performing or purchasing planning or management studies on transportation;
- coordinating transportation services;
- performing or purchasing in-service training relating to transportation services; and/or
- purchasing capital equipment (buses, vans etc.) for transportation services.

The following provides a brief description of competitive (transportation related) grant programs that are federally and state funded:

Local Transportation Enhancement Program (TE)

Administered by WisDOT the TE program provides funding to local governments and state agencies for projects that enhance a transportation project. There are 12 eligible project categories;

- providing facilities for bicycles and pedestrians;
- providing safety and educational activities for pedestrians and bicyclists;
- acquiring scenic easements and scenic or historic sites;
- sponsoring scenic or historic highway programs; including the provision of tourist and welcome centers;
- landscaping and other scenic beautification;
- preserving historic sites;
- rehabilitating and operating historic transportation buildings and structures;
- preserving abandoned railway corridors;
- controlling and removing outdoor advertising;
- conducting archaeological planning and research;
- mitigating water pollution due to highway runoff or reducing vehicle caused wildlife mortality; and
- establishing transportation museums.

Federal funds will cover up to 80 percent of the project, while the project sponsor is responsible for providing at least a 20 percent match.

Surface Transportation Program - Discretionary (STP-D)

This program encourages projects that foster alternatives to single occupancy vehicle trips. Such as rehabilitation and purchase of replacement vehicle for transit systems, facilities for pedestrians and bicycles, system-wide bicycle planning, and a wide range of transportation demand management (TDM) projects. Communities over 5,000 are eligible to apply for the funds through the competitive application process.

Transportation Demand Management Programs

Transportation Demand Management consists of policies and programs designed to reduce the number of single occupant vehicles (SOV) trips in a region, especially during peak travel periods.

There are two grant programs: TDM Grant Program; and Wisconsin Employment Transportation assistance Program (WETAP).

TDM Grant Program

The TDM Grant program provides funding to successful grant recipients to implement projects that encourage innovative solutions and alternatives to reducing SOV trips. WisDOT accepts applications annually. Eligible applicants may include local governments, chambers of commerce, and others as defined by the program. The required local match is 20 percent of the project costs.

Wisconsin Employment Transportation Assistance Program (WETAP)

As a joint program between the Wisconsin Department of Workforce Development (DWD) and WisDOT, it provides funding to help low-income people access, or retain or advance in employment with the goal of meeting the entire population's transportation needs. This program is funded with combined federal and state dollars, and requires a local match.

Application requirements include the development of regional job access plans that identify the need for transportation services and illustrate the alternatives proposed for the program. Plans should be developed between public transit providers, local units of government, transportation planners, human service agencies, low-income individuals and other interested parties

Transportation Economic Assistance (TEA Grant) Program

This program provides a 50 percent state grant to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that are necessary to help attract employers to Wisconsin, or to encourage business and industry to remain and expand in Wisconsin.

Federal Highway Administration

Transportation and Community and System Preservation Pilot Program (TCSP)

The TCSP program is an initiative that assist communities as they work to solve interrelated problems involving transportation, land development, environmental protection, public safety and economic development. It was established in the Transportation Equity Act for the 21st Century (TEA-21), the six-year surface transportation law signed into law by President Clinton on June 9, 1998.

The TCSP program is administered by the U.S. Department of Transportation's Federal Highway Administration in partnership with the Environmental Protection Agency and the Department's Federal Transit Administration, Federal Railroad Administration, and Research and Special Programs Administration. Funding for this program has been authorized through 2003.

TCSP funds are used to help achieve locally determined goals such as improving transportation efficiency; reducing the negative effects of transportation on the environment; providing better access to jobs, services and trade centers; reducing the need for costly future infrastructure; and revitalizing underdeveloped and brownfields sites. Grants also can be used to examine urban development patterns and create strategies that encourage private companies to work toward these goals in designing new developments. The grants will help communities become more livable by preserving green space, easing traffic congestion and employing smart growth strategies while promoting strong, sustainable economic growth.

Grants may be awarded to improve conditions for bicycling and walking; better and safer operation of existing roads, signals and transit systems; development of new types of transportation financing and land use alternatives; development of new programs and tools to measure success; and the creation of new planning tools and policies necessary to implement TCSP-related initiatives. Implementation activities may include community preservation activities to implement transit oriented development plans, traffic calming measures or other coordinated transportation and community and system preservation practices.

There is no local match required under this program, projects are fully funded although priority is given to those applications that demonstrate a commitment of non-Federal resources.

Comparison of Transportation Strategy to State and Regional Transportation Plans

The city of Kiel's transportation strategy as represented in its transportation goals objectives, policies and programs are consistent with state, regional and county plans and programs. State, regional and county plans and programs are inventoried and outlined at the conclusion of this chapter.

INVENTORY OF TRANSPORTATION FACILITIES

Elderly and Disabled Transportation System

Elderly and disabled transportation systems refer to those programs that provide rides through scheduled bus services, volunteer programs with private vehicles etc. Current transportation services for elderly and disabled persons living within the City of Kiel are provided through programs administered by the Manitowoc County Commission on Aging.

Medical related and nutritional related trip purposes receive priority, followed by work related and recreational and/or business related trip needs. The cost of the special transportation services is borne by state subsidy through the Wisconsin Department of Transportation's Section 85.21 (*Special Transportation for the Elderly and Disabled Transportation*) grant program, county funds (20 percent of the state grant), donations and fares collected from passengers.

Intercity Bus

In the past, nearly every small community in the state was connected by an intercity bus service which traditionally served the elderly, those who could not drive, students, and those individuals unable to afford alternative forms of transportation. Following World War II, intercity bus systems helped to fill a void for "affordable transportation" that was created by the decline of passenger rail service. Unfortunately, intercity bus service suffered the same fate as passenger rail; as intercity bus ridership decreased, the number of intercity bus routes operating within the state also declined drastically. Currently, intercity bus routes only serve the largest urban centers and those smaller urban areas that just happen to be adjacent to a route that connects two larger cities.

Bicycle Transportation System

The city has developed an extensive trail system for bicyclist and pedestrians that provides two primary trail loops and two secondary trail loops (See Map 6.5). The first trail loop connects Fire Station park to Hungiss Park extending along the north side of the Sheboygan River from Fire Station Park at STH 67 south and west to Hingiss Park, and back to STH 67 along the south side of the river. The second larger trail loop extends north from Fire Station Park along the east side of STH 67 to CTH XX, and then east to Steinthal Road. From Steinthal Road the trail extends south to Town Hall Road, and from Town Hall Road west to the west side of the Sheboygan River and then south and east adjacent to the river to STH 67 and Fire Station Park. A third trail loop extends from STH 67 at CTH AA east along Town Hall Road to the river; and then north (along the west side of the river) to the cul-de-sac at the terminus of Persnickity Way, and follows the river before looping back westward with connections to the CTH XX outer trail loop

at two locations. A fourth trail extends from Town Hall Road along Cemetery Road south to Duerwaechter Park and then west to Belitz Park. The city's trail system is also complimented by a paved multi-purpose and separated path that extends from Teckla Place, north and west to New Holstein. This trail is located within the STH 57/32 right-of way.

Rail

Historically, the Chicago, Milwaukee, St. Paul & Pacific Railroad, more commonly known as the Milwaukee Road, provided rail service to the city of Kiel, with track connecting Kiel to the city of Green Bay to the north and to the city of Milwaukee to the south. The Milwaukee Road was eventually purchased by the Soo Line which was, in turn, merged with the Wisconsin Central Ltd. (WCL). In 2001, the Wisconsin Central Ltd. was merged with the Canadian National Railway Company, Grand Trunk Corporation.

From the city of New Holstein, the rail corridor extends along the east side of STH 32/57. At the city of Kiel the tracks crosses STH 32/57 and then extends along the west side of the city, crossing St. Paul Street; STH 149, and the Sheboygan River, before continuing in a southeasterly direction through Sheboygan County and eventually to the city of Milwaukee.

In 2001, the Wisconsin Central Limited (WCL) filed a notice of abandonment and discontinuance of service for the track serving Kiel. Service was discontinued on the segment of track that extended from the city of Chilton, through the city of Kiel, to the city of Saukville. During the last two decades, other major segments of this line had been abandoned including segments from the city of Green Bay south through the city of De Pere to Greenleaf, Forest Junction and to Hilbert.

Air Service

The inventory of air transportation systems and facilities includes both public airports that service the region and also the private or semi-public airport facilities that service private commercial and recreational interest.

At the regional level, the primary commercial-passenger and air freight service for residents of the City of Kiel is provided either by Austin Straubel International Airport, located near the city of Green Bay or General Mitchell Field located south of the city of Milwaukee. At the local level, limited air service (charter, etc.,) is provided by Manitowoc County Airport, Sheboygan County Airport and New Holstein Municipal Airport.

Austin Straubel International Airport

Austin Straubel is owned and operated by Brown County. Austin Straubel International Airport is a full service regional connector that in 2002 is providing direct service flights to four major cities, including Milwaukee, Wisconsin; Chicago, Illinois; Detroit, Michigan; and Minneapolis, Minnesota. Flights are provided on six airlines with approximately 32 arrivals and departures daily.

General Mitchell International Airport

An alternative choice for passenger service for Kiel residents is General Mitchell International Airport located in the city of Milwaukee. General Mitchell International Airport is a medium-hub airport owned and operated by Milwaukee County. Mitchell's 14 airlines offer roughly 220

daily departures (plus 220 daily arrivals). Approximately 90 cities are served nonstop or direct from Mitchell International. It is the largest airport in Wisconsin.

Manitowoc County Airport

Manitowoc County owns and operates the Manitowoc County Airport, located north of the city of Manitowoc. Manitowoc County Airport, located in the city of Manitowoc, is a Transport/Corporate (T/C) airport. A T/C facility indicates that the facility can serve and accommodate corporate jets, small passenger and cargo jet aircraft used in regional service and small airplanes (piston or turboprop) used in commuter air service. The facility is owned by Manitowoc County and maintained by Magnus Aviation (FBO). The airport can be accessed by County trunk Q, off of Interstate 43 and State highway 310. The Manitowoc County Airport has two asphalt covered runways that are 3,343 feet and 5,002 feet in length. Available services include fuel, minor airframe and power plant repair, charter, rental, sales and instructional services.

Sheboygan County Memorial Airport

The Sheboygan County Memorial Airport is, like Manitowoc County Airport, classified as a Transport/Corporate (T/C) Airport. T/C class facilities can serve aircraft weighing as much as 60,000 pounds provided that approach speeds are less than 121 knots, with wingspans less than 80 feet in length. The facility is owned by Sheboygan County and maintained by Magnus Aviation (FBO) and can be accessed by CTH O, from STH 42. The primary runway is nearly 5,399 feet in length and 100 feet in width, while the crosswind runway is nearly 4,693 feet in length and 75 feet in width. Corporate charter and limited commuter service are available at this airport. Available services include fuel, major airframe and power plant repair, charter, rental, sales and instructional services.

New Holstein Municipal Airport

New Holstein Municipal Airport is located 1 mile west of New Holstein and is classified as a Basic Utility-B (BU-B) airport. A BU-B airport is designed to accommodate aircraft of less than 12,500 pounds gross weight, with approach speeds below 121 knots and wingspans of less than 49 feet, typically either single-engine or twin-engine piston. The facility is owned by the city of New Holstein and maintained by the Manager (FBO). It can be accessed by CTH H and CTH A, from STH 57/32. This airport has one asphalt runway that is 3,600 feet long and one turf runway that is 2,970 feet long. Available services include fuel, minor airframe and power plant repair, rental, and instructional services.

Private/Recreational Airports

There are also several privately owned airstrips located within Manitowoc County providing general small craft services and/or recreational flights to the public. These small, private airport facilities offer minimal services, and are generally utilized by recreational fliers. Private facilities are generally characterized by short (2,500' to 3,000') turf covered runways which can accommodate small single engine and light twin engine aircraft.

Trucking

There are no major trucking terminals located within the city of Kiel planning area.

Streets and Highways

There are several basic considerations useful in assessing the street system within a community. Those considerations include the functional classification of the existing street system, the annual average daily traffic on streets within the city, and an evaluation of the system's capability to handle present and projected future traffic volumes. In addition, vehicle crash data is useful in determining problem areas relative to street safety. This information can provide an indication of the street improvements that may be needed during the planning period.

Functional Class

The city's streets, which comprise the principal component of the transportation circulation system, may be divided into three categories or functional classes and include: 1) arterial streets, 2) collector streets; and, local streets. The three categories of streets are determined by the function that the street serves in relation to traffic patterns, land use, land access needs and traffic volumes. The street system for the City of Kiel shown in Map 5..2 has been functionally classified based on criteria identified in Table 5.1.

Table Chapter 5 .1: Functional Classification Criteria for Urban Areas

Street Classification	Primary Function of Street	Direct Land Access	Minimum Intersection Spacing	Speed Limit (mph)	Parking	Average Daily Traffic (ADTs)
Freeway and Expressway	Movement of High Traffic Volumes at High speeds	None	1 mile	45-55	Prohibited	>10,000
Primary Arterial	Intracity Traffic Movement - Minimal Land Access	Limited	1/2 mile	35-45	Prohibited	8,000 to 10,000
Secondary Arterial	Traffic Movement and Land Access	Restricted	1/4 mile	30-35	Generally Prohibited	6,000 to 8,000
Collector Street	Land Access and Traffic Movement	Regulated	300 ft.	25-30	Limited	2,000 to 6,000
Local Street	Land Access	Safety	300 ft.	25	Permitted	<2,000

Source: National Committee on Urban Transportation, 1990; Bay-Lake Regional Planning Commission, 2002.

Arterial Streets and Roads

The function of an arterial street is to move traffic over medium to long distances, often between regions as well as between major economic centers, quickly, safely and efficiently. Arterial streets are further categorized into either "major" or "minor" arterial streets based on traffic volumes. There are two arterial streets located within the City of Kiel, STH 32/57 and STH 67.

STH 32/57

STH 32/57 is a primary state highway arterial that provides access north to the city of Green Bay. South of Kiel, STH 32/57 splits, with STH 32 proceeding eastward into the city of Sheboygan where it accesses Interstate Highway 43. From the STH 32/57 split, STH 57 proceeds south to the city of Milwaukee. STH 32/57 traverses diagonally through the city providing access to the city's downtown and central business

area, as well as city hall. From the city's southeastern limits, STH 32/57 travels west crossing STH 67. From STH 67, STH 32/57 continues west on East Water Street and Fremont Street to 7th Street, and continues north on 7th Street to CTH AA and on to New Holsetin.

STH 67

STH 67 originates at STH 151 north of Kiel travels south through Kiel, crossing CTH AA and STH 57 and continues on from that point south to Elkhart Lake. At Elkhart Lake, STH 67 proceeds south and west intersecting with USH 41 near Lomira. From Lomira, STH 67 continues south though the city of Oconomowoc, through Waukasha County, and south to the state line just west of Lake Geneva.

Collector Streets

The primary function of streets classified as “collectors” is to provide general "area to area" routes for local traffic. Collector streets take traffic from the local streets (and the land based activities supported by the local streets) and provide relatively fast and efficient routes to farm markets, agricultural service centers and larger urban areas. With an overall socioeconomic trend that is characterized by the decline of small and medium agricultural concerns, and a significant increase in the number of rural single-family residential properties, collector streets generally serve the same function but with different trip purposes. Collector streets typically serve low to moderate vehicle volumes and medium trip lengths between commercial centers at moderate speeds. Collector streets serve to distribute traffic between local and arterial streets, between home and the work place, home and the place of worship, home and school and between the home and those places where business and commerce are conducted.

In the City of Kiel, Park Street or CTH AA; STH 149, Fremont Street between STH 67 and STH 32/57, CTH XX and 4th Street are classified as collectors. STH 149 provides access to the city of Fond du Lac at the southern tip of Lake Winnebago

Table Chapter 5 .2: Street Function, Total Mileage and Percent of Total Street Mileage, City of Kiel, 2001

Road Function	Miles	Percent
State Trunk Highways	3.73	15.60
County Trunk Highway	1.08	4.60
Local Streets	19.03	79.80
Total Street Mileage	23.84	100.00

Source: Wisconsin Department of Transportation, *City Plat Record*, 2000; Bay-Lake Regional Planning Commission, 2001.

Local Streets

The primary and most important function of local streets is to provide direct access to land adjacent to the street. Local streets are constructed to serve individual parcels of land and properties. They also tend to serve the ends of most trips within the urban area. All streets that are not classified as arterial or collector facilities within the city are classified as local streets

Local streets should be designed to move traffic from an individual lot (more often than not, a person's home) to collector streets that in turn serve areas of business, commerce and employment. Local streets should not be designed or located in such a manner that they would or might be utilized by through traffic. In total, there are more than 19 miles of local streets under the jurisdiction of the city, comprising approximately 80 percent of its total street mileage.

Local Mileage Certification

Each local government that increased or decreased the mileage of its streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local street miles are required to file a certified plat or a certified statement that no mileage statements have occurred. In addition, beginning in 2001, the city is required to provide WisDOT with a numeric based evaluation of the pavement condition of each segment of city street within their jurisdiction.

Traffic Counts

An analysis of past and present traffic volumes is beneficial in determining the traffic conditions in a community. Traffic volumes are usually presented as an Annual Average Daily Traffic (AADT) figure, and are calculated for a particular intersection or stretch of street. The Wisconsin Department of Transportation, as part of its traffic count program, provides highway traffic volumes from selected streets for all state communities on a rotating basis, providing those counts for a community once every three years. For the City of Kiel, traffic volumes were last counted in 1999. Counts were also taken in 1996 and 1993. The average daily traffic volumes on principal and minor arterial streets within the city for those years are shown on Map 5.2 and listed in Table 5.3. The daily traffic counts are taken for 48 hours, and are reported as a 24-hour average weekday count for a specific data collection period.

Table Chapter 5 .3: Average Annual Daily Traffic, 1993, 1996, and 1999; Number Difference Between 1996 and 1999; Percent Difference Between 1996 and 1999; City of Kiel

					Number Difference	Percent Difference
Highway or Street	Counter Location	1993	1996	1999	1996-1999	1996-1999
STH 67	south of 32/57	1,800	2,500	2,300	-200	-8.0
	south of River	na	5,200	5,700	500	9.6
	north of Fremont	6,100	7,000	7,900	900	12.9
	north of CTH AA	4,100	5,900	5,000	-900	-15.3
STH 32/57	east of STH 67					
	west bound lane	2,600	3,500	3,400	-100	-2.9
	east bound lane	2,600	2,700	3,300	600	22.2
Water Street	west of STH 67	3,600	3,100	3,700	600	19.4
1st Street	at bridge	4,400	4,000	4,400	400	10.0
4th Street	north of Fremont	1,200	1,200	1,000	-200	-16.7
	south of Park Street	1,000	910	860	-50	-5.5
	north of Park Street	900	760	740	-20	-2.6

Table Chapter 5 .4: Average Annual Daily Traffic, cont.

					Number Difference	Percent Difference
Highway or Street	Counter Location	1993	1996	1999	1996-1999	1996-1999
Freemont	east of First Street	na	2,800	3,100	300	10.7
	east of 7th Street	6,500	6,100	6,600	500	8.2
	west of 7th Street	3,800	3,800	4,200	400	10.5
7th Street	north of St. Paul Street	3,100	3,100	3,000	-100	-3.2
Park Street	west of STH 67	5,900	6,100	6,300	200	3.3
	east of Calumet Street	5,000	4,900	5,900	1000	20.4
Calumet Street	east of Park Street	3,700	3,200	3,700	500	15.6
	west of Park Street	5,500	5,700	7,200	1500	26.3

Source: Wisconsin Department of Transportation, *Wisconsin Highway Traffic Volume Data*, 1992, 1995, 1998; Bay-Lake Regional Planning Commission, 2001.

Traffic Flow Capacity

The streets that serve the state, the region and the local community are designed and engineered to accommodate a maximum level of traffic (Table 5.4). The maximum total capacity of a two-lane, two-way highway (such as STH 32/57 and STH 67) under ideal conditions is 2,000 vehicles per hour in both lanes, as determined by the Peak Hourly Traffic (PHT), regardless of traffic distribution by direction. The maximum capacity values given in Table 5.4 should be considered as the average maximum volume on various types of streets under ideal conditions.

Table Chapter 5 .5: Uninterrupted Traffic Flow Capacities Under Ideal Conditions

Highway Type	Capacity Peak Hourly Traffic
Multi-Lane and Divided Highways	2,000 vehicles per lane
Two-Lane, Two-Way Highways	2,000 vehicles both lanes
Three-Lane, Two-Way Highways	4,000 vehicles both lanes

Source: Highway Capacity Manual, Highway Research Board of the Division of Engineering and Industrial Research, 1985; Bay-Lake Regional Planning Commission, 2001.

As the comparison of the recorded average annual daily traffic, peak hourly traffic and the traffic flow capacities indicate, at present, there are no streets or street segments located within the city that have approached or appear to be approaching the streets design capacity.

Traffic Crashes

Vehicle crash reports, filed by the Police Department with the Wisconsin Department of Transportation, provide the detail of the time, location, type and severity of the crash that has occurred. These reports are often excellent indicators of problems with street alignments, construction, and geometric design of the street. The number, location and severity of accidents can often indicate problem areas (in terms of traffic safety) which may be alleviated through a variety of measures. Alterations in the street geometry, enlargement of the intersection turning

radii, and placement of more prominent signs, relocation of access drives and speed changes are just a few of the physical alterations and adjustments that can be made to make a specific intersection or area safer.

Table Chapter 5 .6: Vehicle Crashes, City of Kiel , 1999 and 2001

Year	Fatalities	Crashes Resulting in Injuries	Persons Injured	Crashes with Property Damage Only
1999	-	2	2	3
2000-	-	6	11	7
Total	-	8	13	10

Source: Wisconsin Department of Transportation, 2002; Bay-Lake Regional Planning Commission, 2002.

The crash data are further delineated by non-intersection and intersection crashes and by highway jurisdiction. In urban areas non-intersection crashes typically include, striking parked cars, collisions with vehicles striking the rear of slowing or stopped vehicles, and a crash between a vehicle travelling on the street and another vehicle entering or exiting the street at a private property access. Intersection accidents are typically characterized by angle crashes, rear-end accidents and head-on crashes within the immediate area of a particular intersection. Intersection accidents often may be indicators of a problem with the sight triangle at the intersection (visibility), location of and visibility of signs, and/or the geometric configuration of the street itself.

Table Chapter 5 .7: Intersection/Non-Intersection Crashes by Highway Jurisdiction, 1999 and 2001

Crash Location	Total Crashes	Intersection		Non-Intersection	
		Crashes	Percent	Crashes	Percent
State Highway 32/57 and 67	7	3	16.7	4	22.2
County Highways	2	2	11.1	0	-
Local Streets	9	2	11.1	7	38.9
Total	18	7	38.9	11	61.1

Source: Wisconsin Department of Transportation, 2002; Bay-Lake Regional Planning Commission, 2002.

Access Controls

Access management is a means to maintain the safe and efficient movement of traffic along arterial highways by controlling the number and location of intersecting streets and driveways. State statutes allow counties, cities and villages (through an adopted ordinance) to control access on county highways that have traffic counts in excess of 1,000 vehicles daily.

INVENTORY AND ANALYSIS OF APPLICABLE TRANSPORTATION PLANS

The following section of this chapter presents information on existing state, regional, county, and local transportation related plans that may apply to the city of Kiel.

State Highway Plan

The *Wisconsin State Highway Plan 2020* responded to key issues facing the State Trunk Highway system relative to both immediate and future needs. The Plan emphasized three areas including: pavement and bridge preservation, traffic movement, and safety. With the cooperation

of its transportation partners, WisDOT developed a 21-year strategic plan which considered the highway system's current condition, analyzed future uses, assessed financial constraints and outlined strategies to address Wisconsin's preservation, traffic movement, and safety needs.

The state plan does not identify - or anticipate - the need for future expansion (including development of highway interchanges and bypass routes) for STH 32/57 or STH 67 within the 20 year planning horizon. The plan does, however, identify methods for preserving capacity and improving safety on those segments of the system where expansion is not currently an identified option. The preservation and safety management tools identified by the State Plan, which are consistent with Kiel's Comprehensive Plan, include corridor preservation, management of highway access, and, where needed, specific geometric improvements that may include widening of lanes, straightening curves, adding turn lanes, adding travel lanes and improving intersections.

State Airport Plan

The Wisconsin State Airport System Plan 2020 (SASP 2020) provides a framework for the preservation and enhancement of the system of public-use airports adequate to meet current and future aviation needs of Wisconsin. The plan determined the number, location and type of aviation facilities required to adequately serve the state's aviation needs over a 21-year planning period, 2000 through 2020. The plan defined the State Airport System and established the current and future role of each airport in the system. Manitowoc County Airport and Sheboygan County Airport are identified as Transport/Corporate type facilities and no change in the classification or role that each will play is anticipated within the 20 year planning horizon. The city of Kiel plan recognizes the role that these airports play in the regional economy and the need to maintain as efficient a level of service as is attainable.

State Railroad Plan

The update of the *Wisconsin State Rail Plan 2020* is currently in progress. Upon completion the Wisconsin State Rail Plan (SRP 2020) will provide the policy framework for the preservation and enhancement of the Wisconsin State Rail System. This will be a long-range plan with a horizon year of 2020.

The SRP 2020 will define the rail system's role in the movement of people and goods within the context of Wisconsin's multi-modal transportation system. The plan will assess the rail system's current condition and determine a course for the future considering performance objectives, needed improvements, and alternatives to fund them.

Although the rail service to Kiel has been discontinued, the *Kiel 20 Year Comprehensive Plan* recognizes the need to maintain, as much as possible, an efficient system of rail service to the region's major urban areas including Green Bay, the city of Manitowoc and the city of Sheboygan. Consistent with the state plan, the city's plan recommends the preservation of all existing rail corridors for future transportation purposes.

State and Regional Bicycle Plans

In December of 1998, the Wisconsin State Bicycle Transportation Plan was published by the Wisconsin Department of Transportation, Division of Investment Management, Bureau of Planning. The Plan was developed by the State Bicycle Plan Advisory Committee with written and technical assistance from the Bureau of Transportation Safety.

The State Bicycle Plan has two primary goals: to increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010, and to reduce crashes involving bicyclists and motor vehicles by at least 10% by the year 2010. State Bicycle Plan objectives are structured around the 4-E's of transportation safety: engineering (and planning), education, enforcement, and encouragement. There are two Engineering and Planning Objectives: to plan and design new and improved transportation facilities to accommodate and encourage use by bicyclists, and to expand and improve a statewide network of safe and convenient routes for bicycle transportation and touring, including safe and convenient access to and through the state's urban areas. The Education Objective is to expand the range of education activities such as driver licensing and training, bicycle safety education, traffic law enforcement, and provision of public service information to provide consistent safety messages and training to all roadway users. The Enforcement Objective is to improve enforcement of laws to prevent dangerous and illegal behavior by motorists and bicyclists. The Encouragement Objective is to encourage more trips by bicycles by promoting the acceptance and usefulness of this mode.

The recommendations of the State Bicycle Plan include intercity and urban/suburban improvement actions. Bicycle provisions for wide curb lanes, bike lanes, or paved shoulders should be made within urban areas. Where suitable accommodations for bicyclists now exist, new highway improvements will be planned to continue an acceptable level of service and safety for bicyclists. The State Bicycle Plan identifies general bicycling conditions within intercity areas. The two primary variables by which roads were classified for cycling were the volume of traffic and the paved width of roadway. The State Bicycle Plan indicates that "caution is advised" for bicycle travelers utilizing higher-volume roadways, such as major county trunk highways, due to the amount of traffic and the width of the road pavement. Lower-volume roadways are designated as "suitable for bicycling" based on the light traffic volumes and roadway width. Major arterial highways are classified as "not recommended for bicycling" because of relatively high traffic volumes, moderate to high truck traffic volumes, and narrow road shoulder width. The State's Bicycle Plan only assesses conditions on state highways and county trunk highways. The plan assumes that all local town roads are suitable for bicycling, basing that assumption on the low traffic volumes currently on average town roads. Serious consideration should be given to the accommodation of bicyclists when roadway projects are planned and designed. Within the city of Kiel STH 67, STH 32/57 and STH 149 are identified as high volume roads that are "not recommended for bicyclist".

The *Bicycle Transportation Facility Plan for the Bay-Lake Region*, like the state plan, also sought to identify new and improved transportation facilities to accommodate and encourage use by bicyclists, and to develop, over time, a region-wide network of safe and convenient routes for bicycle transportation and touring, including safe and convenient access to and through the region's urban communities, including the city of Kiel. The primary focus of the plan was to identify routes connecting all communities and destination points (state and county parks etc.) and to determine what improvements were needed to make those routes safer for bicycle travel.

Neither the state or the regional plan identify existing routes or recommended bicycle improvements within the city of Kiel. Both plans, however, do recommend the development of bicycle facility plans for communities such as the city of Kiel that provide access and connections to the state and regional system.

State Pedestrian Plan

The *Wisconsin Pedestrian Policy Plan 2020* outlines statewide and local measures to increase walking and to promote pedestrian comfort and safety. The plan provides a policy framework addressing pedestrian issues and clarifies WisDOT's role in meeting pedestrians needs. It establishes actions and policies to better integrate pedestrian facilities into the transportation system over the next twenty years.

The state plan also provides recommendations to assist local officials in meeting their communities' pedestrian transportation responsibilities. The plan outlines specific design guidance for local officials found in WisDOT's Facilities Development Manual (FDM); state funding for local pedestrian projects provided primarily through the General Transportation Assistance (GTA) Program; and safety and education program funding provided by WisDOT to local agencies.

TRANSPORTATION RECOMMENDATIONS

Initiate A Pavement Management Program

Streets are rehabilitated, repaired and maintained with funds provided by the State's Local Roads Program (LRP). This program provides each local unit of government in the state with financial support derived from state taxes on gasoline and other transportation/vehicle related surcharges for local street maintenance and repair.

It is recommended that a "pavement management" system be developed and utilized by the city. The system provides a detailed inventory and description of all streets within the city, provides a detailed surface condition survey of those streets, defines the goals and objectives of the city with respect to its street maintenance and repair, and establishes a long-term maintenance schedule which would prioritize the street maintenance and repair needs.

A pavement management program is simply a Capital Improvement Program geared specifically to the city's streets. The pavement management program provides the city with a detailed, defensible document, which will assist elected and appointed officials in making informed decisions regarding street maintenance and repair.

Employ Adequate Design Standards

New highways and streets, in the optimum setting, should be designed for their projected and desired use. Design standards should be applied to all new construction and, where possible, existing streets which are to undergo major repair and reconstruction shall undergo this work according to the standards set forth in this plan and the subdivision ordinance (see Appendix D).

In examining the design of streets, the "road-scape" of these facilities also should be considered as well. The "road-scape" includes the area adjacent to the street and within the established right-of-way or the ditch that serves as a vegetative buffer between the street and the adjacent lots, a location for traffic signs and for utility lines.

Apply Traffic Considerations

Traffic considerations which the city should take into account when planning for future development may include the following:

1. Adequate vehicular and pedestrian access should be provided to all parcels of land.
2. Local street systems should be designed to minimize through traffic movement.
3. The street pattern should minimize excessive travel.
4. A simple and comprehensible system of street names and house numbering should be provided.
5. Traffic generators located within new subdivisions (such as schools, churches and parks) should be considered in the local circulation pattern.
6. The planning and construction of local residential streets should clearly indicate their function.
7. The local streets should be designed for a relatively uniform and low volume of traffic.
8. Local streets should be designed to discourage excessive speeds.
9. Minimize intersections.
10. Devote a minimal but adequate amount of space to street uses.

11. Roads are a function of land use, and therefore should not unduly hinder the development of land.
12. Pedestrian and bicycle paths should be separated from vehicle paths where possible.

Assess Special Transportation Needs

Transportation services for elderly and disabled persons are provided by the county and by private nonprofit and for profit carriers. The city should play as active a role as possible in the support, development and maintenance of special transportation services for the elderly and disabled population of the city.

Access and Corridor Study for STH 32/57 and STH 67

It is recommended that the city develop a detailed access and corridor plan for the STH 67, STH 32/57 corridors. The plan should include planned future land use development within the corridor, types and locations of access to the state highway system, and recommendations for standards to be applied for new development, such as landscape buffers, design standards for buildings, etc.

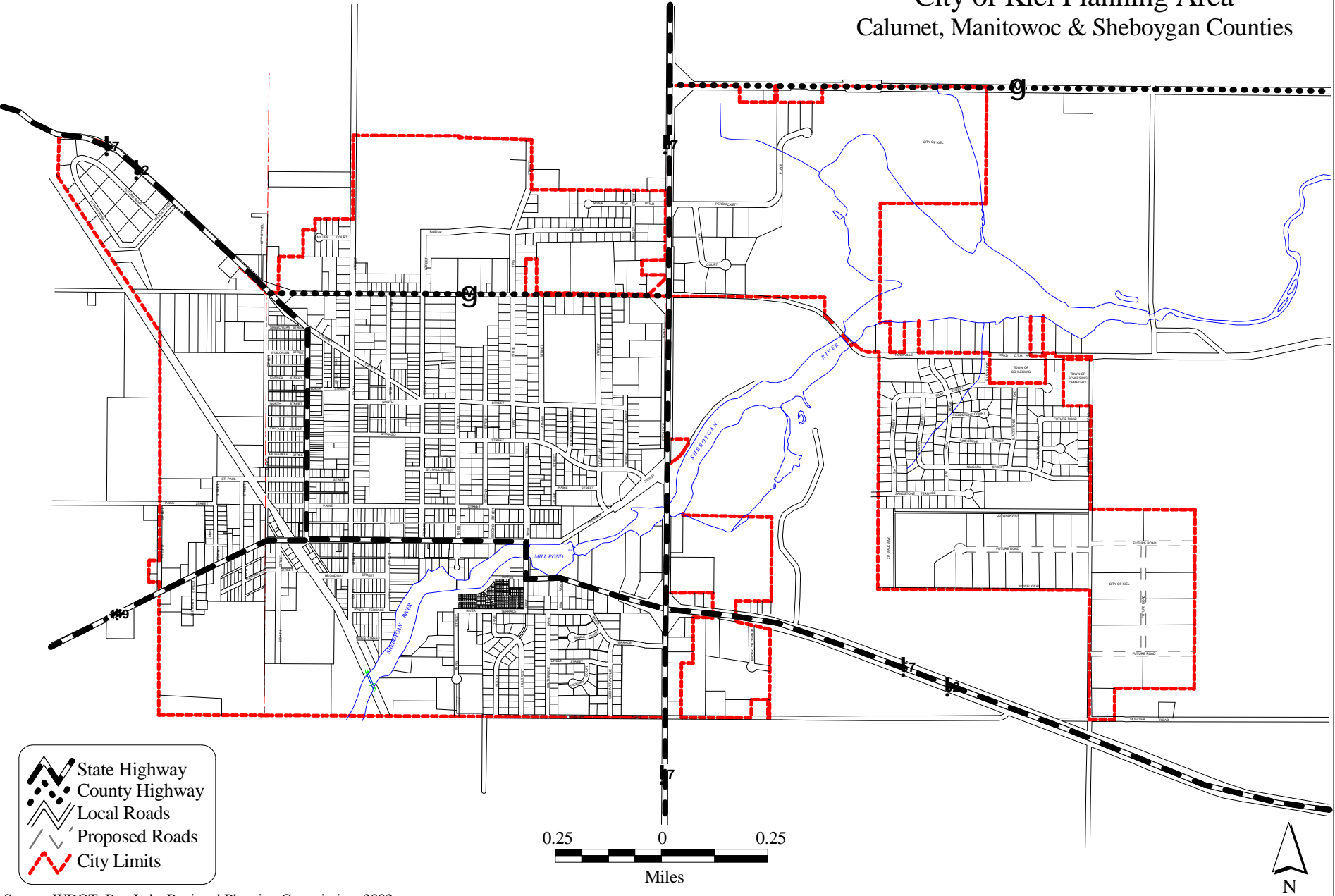
Bicycle Facility Plan

It is recommended that the city of Kiel develop a bicycle facility plan that identifies future connections to its existing facilities to the city's downtown and to the other important destination points located within the city (parks, recreational areas, and schools) and county.

Local Roads

City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

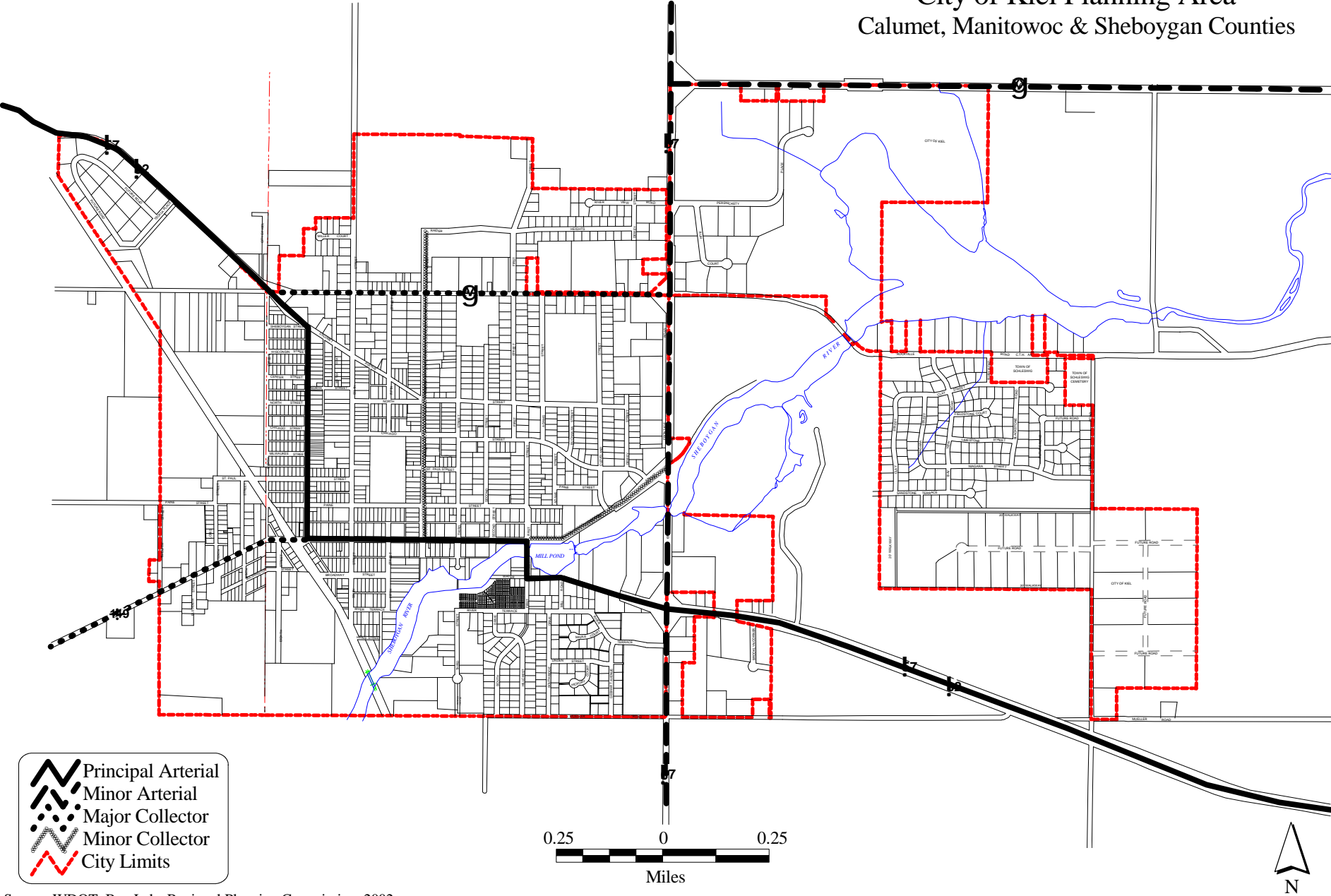


Source: WDOT; Bay-Lake Regional Planning Commission, 2002.

Functional Classifications

City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties

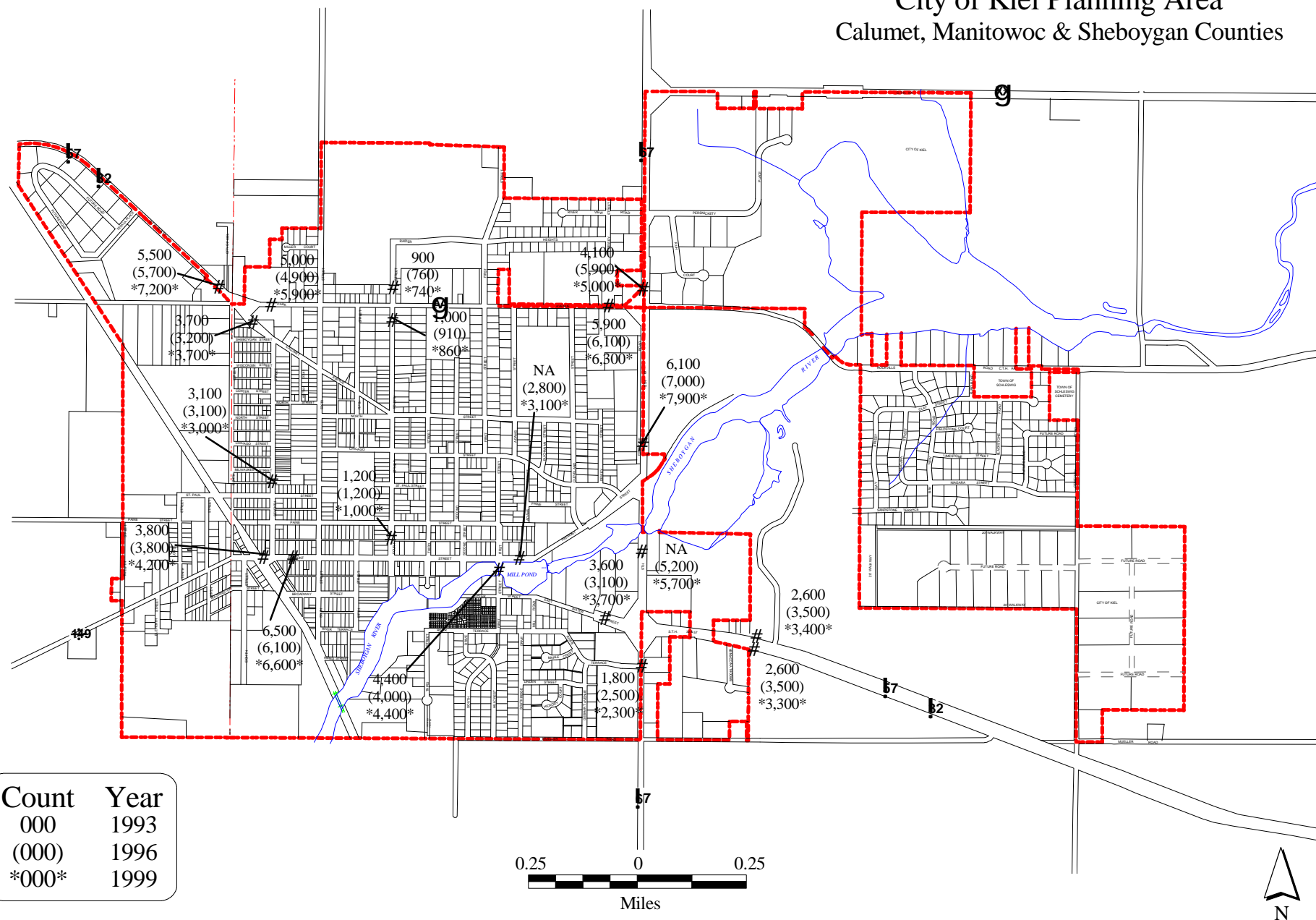


Source: WDOT; Bay-Lake Regional Planning Commission, 2002.

Average Annual Daily Traffic

City of Kiel Planning Area

Calumet, Manitowoc & Sheboygan Counties



Chapter 6 - UTILITIES AND COMMUNITY FACILITIES

INTRODUCTION

As part of the comprehensive planning program, the city of Kiel utilities and community facilities were reviewed and broadly evaluated as to their current condition and adequacy to meet the city's present and future needs. Data and information were obtained through discussions and questionnaires filled out by the City Administrator, city employees, and other representatives throughout the community. Map 6.4 illustrates the location of the various community facilities within the city of Kiel.

To maintain a high level of public services, the community must continually monitor and upgrade their existing facilities as population increases. The general recommendations contained in this section are based on general long-range planning considerations and should not be substituted for detailed architectural or engineering studies required before expending substantial community resources and undertaking specific public works projects. The levels of accuracy of the referenced materials herein is subject to change and should only be used as an initial guide/reference in establishing this plan's initial land use needs. As time goes on, the city should collect updated information regarding services as it looks to modify them. In some cases, greater detail of information on the service should be gathered.

SUMMARY AND IMPLICATIONS

Overall the city has traditionally provided its residents with a full set of services rated by city residents as being good to excellent in a community survey. However, several services such as emergency services (sheriff/police, fire, rescue, ambulance), postal, library facilities, etc. should be monitored as the population of the city changes. In addition, older facilities such as the Kiel City Hall should be continually maintained and upgraded as needed due to their age, and in order to keep their aesthetic appeal. Electric service for the city is provided by Kiel Utilities, with Natural Gas service provided by Wisconsin Public Service. The city and its planning area contain many natural amenities that are currently utilized for recreation. It is recommended that the city cooperate with Manitowoc and Calumet counties, as well as adjacent communities when the city determines to expand or develop additional recreational facilities for its residents and visitors.

As developments grow within the city, there may be a need to increase the number of services for those types of developments. Likewise, the possible growth within the city may result in additional development pressures within the community, to more isolated areas of the planning area. Either way, the city may find itself having to provide for additional services, to include expanding or upgrading its current facilities.

The city also has few services to offer its aging population. However, several surrounding communities do offer facilities for the elderly, most likely resulting in the aging population needing to someday relocate to these other communities. This prospect not only removes a valued population but also removes valued buying power of the retired community within the area.

UTILITY AND COMMUNITY FACILITY STRATEGY

Goal: Community Facilities and Public Utilities

To provide quality community services to all the residents of the city of Kiel and to provide for orderly development of the city through the planned development of public and community facilities.

Objective:

1. Develop, maintain and upgrade as needed the city's community facilities/utilities and public services for all of its residents.

Policies:

1. Continue to invest in new public works equipment to adequately and economically perform required duties.
2. Continue to encourage the concept of "mutual aid agreements" for public services being provided (i.e. waste).
3. Ensure that the city continues to receive effective and efficient law enforcement, fire and emergency/medical services.
4. Support the development of elderly and childcare services within the area.
5. Continue to maintain and upgrade the City Hall facilities as needed.
6. Ensure that citizens are provided with adequate electric, natural gas and telecommunication services.
7. Provide for the continuous availability of public utility capacity and provide those areas for identified development with adequate water, sewer and stormwater facilities.
8. Consider the possible impacts to the city's groundwater when weighing future developments.
9. Support the development of a fitness/community center within the city.
10. Explore the possibility of a Historical Museum for the city.
11. Continue to monitor resident satisfaction with the recycling program in the city.
12. Continue cooperation and communication between the Kiel Area School District, the City of Kiel and surrounding communities to maintain and upgrade facilities to collectively provide for quality educational opportunities.
13. Provision of public facilities to accommodate development will not place an unreasonable burden on the ability of the city to provide them.

Programs:

1. The city of Kiel should work with adjacent communities and districts in order to provide the best level of police, fire, rescue (EMS), educational and other provided services on an annual basis.

2. Work cooperatively with select service providers to upgrade telecommunication, cable, electrical and natural gas services when needed. Future ordinances should be considered/adopted to limit possible negative impacts (i.e. communication towers).
3. Continue to monitor plans/needs to upgrade facilities (water, sewer, etc. within the city.

Goal: Parks and Recreational Lands

Ensure all residents have safe recreational sites within the city that provides a number of activities.

Objectives:

1. Continue to have quality recreational sites within the city for all of the city's residents.

Policies:

1. Cooperate with adjacent communities to development future recreational lands within the area.
2. Continue to maintain and improve the recreational sites within the city
3. Ensure that any future trailway developments are discussed with residents as well as affected property owners.
4. Promote utilizing natural features for enhancing the city's recreational opportunities.
5. Use the city's official mapping powers to preserve any areas the city designates for future park and recreational uses.
6. Consider access for the disabled, elderly and very young when planning/designing/coordinating and constructing any new recreation projects, including parking, trails, etc.
7. Consider rental facilities for recreational activities.

Programs:

1. Work with the surrounding counties and adjacent municipalities in identifying future recreational areas.
2. The city should work with state agencies and private property owners to ensure that existing trails are properly maintained and that any user/property owner disputes are reconciled quickly, so as to continue to provide quality trail networks throughout the area.
3. The city should explore available resources and contact appropriate agencies (i.e. WDNR, BLRPC, etc) to further enhance the quality of the city's recreational systems.
4. Seek public and private donations for funding park system improvements.
5. Work to integrate historical sites into possible recreational facilities.
6. Work to improve signage identifying recreational sites.

7. Seek ways to address the preservation of the Rockville Dam and areas surrounding the dam.

BOARDS AND COMMITTEES INVENTORY

The city has an established City Council and a City Plan Commission to adopt, review, amend, and implement the comprehensive plan for the city. The City Council should refer all matters to the Plan Commission for their review, analysis, comment and input prior to making a decision. After a Plan Commission recommendation, the City Council will base its decisions in light of the information contained within the comprehensive plan to ensure consistency and compliance.

In addition to the City Council and Plan Commission, the city has the following to assist in the future planning and implementation of city goals: Public Works, Law Enforcement, Kiel Ambulance Service, Park Board, Downtown Development, Board of Appeals, Library Board, City Committee on Aging, Board of Review, Housing Authority, CATV Committee, Citizens Committee, East Shore Recycling Commission, Indian Hill Board, etc.

UTILITIES INVENTORY ANALYSIS-LOCATION, USE AND CAPACITY

Electric Service

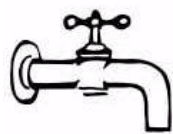


Kiel Utilities provides electrical service for use in the city as well as the Kiel's planning area. The electrical energy is purchased and transmitted from a number of different facilities in the surrounding area. Power is distributed throughout the area by four substations. The substations are located on Washington Street, Meyer Road, the corner of Ninth and St. Paul Street, and the corner of Fremont and STH 57. The voltage capacity of the present system is 30 megawatts. The approximate number of customers being served within the Kiel area includes 1,884 residents and 341 businesses. The city does not have any improvement plans for electrical service in the near future since the current system servicing the area is believed to be adequate.

Natural Gas

Natural gas is provided to the entire city of Kiel by Wisconsin Public Service (WPS). There is a district regulator located on STH 149. The capacity of the present system is 150,000 c.f.h., which is considered adequate to serve the needs of the customers in the area.

Public Water System



The city provides water service to its community from three municipal wells. The capacity of these wells is 2,000 gpm. with the city's current peak water usage at 1,000 gpm. The wells draw water from the Silurian-Dolomite aquifer. It is important the city protect its aquifer for future use. In addition, two 200,000 gallon storage towers are also in use by the city. The current system distributes water throughout the city by a series of water mains ranging in a variety sizes (Map 6.1). The future service area will correspond to those lands identified within the general plan design. Water services will be provided to these future sites upon their development. Currently, there are no future improvement plans for the present water system, and it is considered adequate for the community for the next 10 to 20 years.

Sanitary Sewer Service

Kiel's sanitary sewer system is a conventional gravity type with seven lift stations. It has an advanced treatment system that includes extended aeration Class A bio-solids system. The effluent from the system is discharged into the Sheboygan River. The current system covers the entire city and consists of collector sewers, force mains, interceptor sewers, etc. The collector and force mains are a variety of different sizes (Map 6.2). The existing system is considered adequate and the city has no plans to upgrade it in the near future.

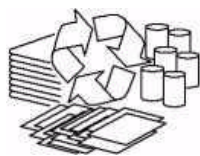
Storm Sewer System

The city is provided with a storm water sewer system. The present system of curbed streets and sewer drainage was developed by the gradual extension of the major drainage systems in the city. There haven't been any drainage problems within the city indicating that the existing system is adequate at this time. There are no plans to improve the storm sewer system in the near future, but the city will continue to monitor areas that may be more susceptible to flooding.

Sidewalks

Sidewalks exist throughout much of the city linking many of the commercial areas and community services with residential neighborhoods. Sidewalks are required in new areas of development.

Solid Waste Disposal and Recycling Facilities



The pick up of solid waste occurring once every week in the city of Kiel is provided by Superior Services which then disposes of it at the landfill in Hilbert. Presently, refuse disposal in the city is considered adequate.

The recycling program for the city of Kiel includes curb-side pickup of items once every other week. Recyclable products collected during pickup include plastic, glass, paper, aluminum, tin, etc. The recycling program is considered adequate, and the majority of respondents (77 percent) of the community survey indicated the service is good. There are no future plans to improve the city's solid waste or recycling services in the near future.

Telecommunications Facilities

Local telephone service in the city of Kiel is provided by Verizon, however other companies such as Sprint, Century Tel, and MCI provide long distance and cellular service in the area. A switch station is located on 6th Street just south of Fremont Street in the city. Special lines (Fiber Optics), provided by Charter Communications, are also available for internet access. The city does not contain any telecommunication towers, however Cellcom currently has an antenna on the radio communication tower used for the emergency services. Cable television service is provided to the city of Kiel by Charter Communications. Telephone service in the city is not considered adequate due to the small range of the local calling area. At this time there are no future improvement plans for telecommunication facilities. However, respondents of the community survey indicated that the cable television and internet access provided to the city may need some improvement.

COMMUNITY FACILITIES INVENTORY AND ASSESSMENT LOCATION, USE AND CAPACITY

Municipal Building

The Kiel City Hall is located at 621 Sixth Street and provides space for the city's administrative facilities. Constructed in 1928, the City Hall houses the City Administrator's office, Treasurer's office, City Assessor, Utilities, Police Department, Fire Department office, Public Works Department, Council Chambers, and the city's two rescue squads. Other facilities in the structure are utilized for preschool, aerobics and the boys and girls scouts. The facility is handicapped accessible with handicapped parking available in the back of the structure. However, the overall parking for the facility is not adequate at this time. There is a limited number of off-street parking stalls located on the side and back of the structure. Presently, most employees and visitors park on the road in the front of the building. Overall, the administrative facilities are considered inadequate, with many of the offices needing to be remodeled. Improvement plans in the future include remodeling the administrative office and the police department. Due to the structure's age the facility should continue to be maintained and other improvements made to extend the life of the building. Parking around the facility will need to be addressed in the near future for accessibility and safety issues.

Road and Other Maintenance

The City of Kiel Street Department, located on Washington Street provides the community with street maintenance and repairs. The city shop is used primarily for equipment storage and maintenance. An inventory of the city's street department equipment includes: dump trucks, a grader, street sweeper, backhoe, etc. According to the respondents of the community survey, current road maintenance for the city is fair. As the population increases in the future the city should improve its equipment and street maintenance.

Postal Services



The Post Office facility located at 220 Fremont Street provides postal services for the city of Kiel. The 3,800 sq. ft. structure was constructed in 1995 and currently handles 200 lock boxes. Parking at the facility is adequate and the facility is handicapped accessible. The present facility will be able to fit the needs of the community for the next 10 to 20 years, therefore there are no future improvement plans for the Post Office.

Cemeteries

The Kiel Municipal Cemetery and Ss. Peter and Paul Catholic Cemetery are the two cemeteries located in the city of Kiel. Both cemeteries have space available for future use. The Kiel Municipal is planning to develop a new site in the future creating unlimited space. In addition, several additional cemetery facilities exist within the city's planning area. The present cemetery facilities are considered adequate for the city of Kiel. Future cemetery plans in the community may include the development of a cemetery on the south side of the city.

Police Station



The Kiel Police Department is housed in the City Hall at 621 sixth street. The city's police force consists of twelve employees, seven officers and five dispatchers. Equipment used by the department includes two fully equipped squad cars, a 1990 and a 2000 Ford Crown Victoria. The department also has a variety of other equipment common to most departments of similar size. The city has no jail facilities of its own, and must depend upon the use of the Calumet and Manitowoc County Jail facilities. Other services offered by the police department include Kid Care, Babysitting Program, Crossing Guard, etc. The police protection for the city is adequate at this time. However, future improvement plans include expansion of the police department facility and dispatch center within the next 10 to 20 years.

Fire Station/Protection



Fire protection for the city of Kiel is provided by the Kiel Fire Department. The current fire station was constructed in 1980 and is located on Fremont Street. Established in 1892, the Kiel Fire Department currently has 35 volunteer members for fire protection. Serving the city of Kiel and portions of the surrounding area, the Fire Department also has mutual aid agreements with Manitowoc, Calumet and Sheboygan counties which has been in effect since 1970. Currently fire services are accessed by calling the community's 911 system. The Kiel Fire Department has the following major equipment to fight fires:

- Two 1,250 gpm Pumpers (1984 and 1996)
- 1979 75-Foot Aerial Ladder with a 1,250 gpm Pumper

In addition, the Kiel Fire Department has special equipment such as two all terrain vehicles, a boat, etc. The Kiel facility also houses the town of Schleswig fire vehicles. The department also provides special services such as ice and water rescue and the jaws of life. The department also operates two ambulances for the city which are located at City Hall. Overall, the fire protection services for the city of Kiel are considered adequate at this time. Future improvement plans include a new ladder truck and an addition to the fire station for office space.

Insurance Service Office (ISO) Grading

The adequacy of fire protection within the city is evaluated by the Insurance Service Office (ISO) through the use of the *Grading Schedule for Municipal Fire Protection*. The schedule provides criteria to be used by insurance grading engineers in classifying the fire defenses and physical conditions of municipalities. Grading obtained under the schedule are used throughout the United States in establishing base rates for fire insurance. While ISO does not presume to dictate the level of fire protection services that should be provided, it generally identifies serious deficiencies found, and over the years has been accepted as a guide by many municipal officials in planning improvements to their fire fighting services.

The grading is obtained by ISO through its Municipal Survey Office based upon their analysis of several components of fire protection including:

- Fire department equipment

- Alarm systems
- Water supply system
- Fire prevention programs
- Building construction
- Distance of potential hazard areas from a fire station

In rating a community, total deficiency points in the areas of evaluation are used to assign a numerical rating of one to ten, with one representing the best protection and ten representing an unprotected community. The city of Kiel's rating is a four.

Emergency Services



Ambulance services for the city of Kiel are provided by the Kiel Fire/Ambulance Service. The ambulance facilities are located at the City Hall on Sixth Street. Established in 1938, this volunteer service currently consists of 20 volunteers (13 EMT-Intermediate and 7 EMT) and provides emergency services to the city of Kiel, town of Schleswig and other portions of Sheboygan, Calumet and Manitowoc counties. Presently, the Kiel Ambulance Service has two ambulances and other specialized equipment which provide advanced life support to the area. The emergency calls are handled through the 911 system that is used by the city of Kiel. At this time, the level of emergency medical service and equipment are felt to be adequate by the community. Improvements in the future include replacing the vehicles every five years, updating equipment regularly and moving the ambulance service to the firehouse location.

Library



The Kiel Public Library was constructed in 1972 and is located at 511 Third Street. The facility offers a wide range of services and materials to Kiel area residents. Presently, there are seven individuals employed by the library, five librarians and two support staff. The library is open year round including special summer hours. The facility is handicapped accessible, but the parking is considered inadequate with limited parking on the street in the front of the building. Future improvement plans include adding computers and improving the library systems. Also an addition to the current library structure is planned within the next 10 to 20 years. Parking for the facility should also be addressed in the near future for accessibility and safety. Expanding the hours of operation is also an issue that may need to be addressed in the near future.

Educational Facilities



Students within the city of Kiel attend schools in the Kiel Area School District. Facilities within the district include Zielanis Elementary School located in Kiel, and Meeme Elementary School located in the town of Meeme, both elementary schools serve pupils in pre-kindergarten through grade four. The Kiel Middle School located at 502 Paine St. in Kiel educates for grades 5-8, and Kiel High School located at 210 Raider Heights serves grades 9-12. The 2001 student population within the School District totaled 1,526. With a 1:13 teacher to

student ratio, the Kiel Area School District and its facilities are considered adequate. The WPI teacher to student minimum ratio goal is set at 1:15. The graduation rate for the Kiel Area School District is 97 percent which is higher than the state's average of 89 percent. The District does not have any major improvement plans scheduled for the school facilities in the near future.

Other educational facilities located in the city include several parochial schools. Trinity Lutheran School located at 310 Fremont Street and Ss. Peter and Paul School located at 423 Fremont Street provide education for elementary level students (pre-K through 8th grade). The Trinity Lutheran School has plans to either remodel or rebuild within the next 10 to 20 years.

Another educational opportunity for children in the city is the Kiel Cooperative Preschool. Located on the second floor of the Kiel City Hall, this educational program is for three and four-year-olds and is open to all families in the Kiel area. The Preschool consists of a group of parents organized to provide children with adequate preschool experience. It is a non-profit organization administered and maintained by the parents.

Child Care Facilities

The city of Kiel does not have a public child care facility. However, while no public child care facilities are located within the city, Wisconsin State Statute does allow for in-home daycare up to eight children for State licensed facilities. Currently the city does have five private child care facilities. The community is hopeful that there will be a public child care facility within the city within the next 10 to 20 years.

Health Care Facilities



City residents do have access to two small family clinics located within Kiel (The Kiel Family Medical Center located on Fremont Street and the Kiel Clinic located on Paine Street). Both facilities have one doctor and at least 2 full time staff members. There are no existing hospital facilities within the city of Kiel, however hospital facilities exist in nearby cities of Plymouth (Valley View Medical Center), Chilton (Calumet Medical Center), Sheboygan (Sheboygan Memorial Medical Center, and St. Nicholas Hospital), Manitowoc (Holy Family Medical Center, and Manitowoc Memorial Hospital) and Fond du Lac (St. Agnes Hospital). There are two dental practitioners within the city of Kiel. Dr. Barbara Karl's, DDS located on Fremont Street, and Dr. David Pieper, DDS located on Park Avenue. Currently, there are no known future plans for the city's health care facilities/services. City residents may also utilize Specialized Care Facilities and Rehabilitation Facilities within the cities of Madison and Milwaukee. Flight for Life is also available for emergency situations.

Senior Care Facilities

The city of Kiel does not contain full-time senior care facilities. Surrounding communities which provide these facilities could be utilized. However, according to the community survey and nominal group results it is evident that the citizens of Kiel feel that the city should develop elderly facilities for its residents.

Other Facilities

Other facilities of note within the city of Kiel include the following:

Kiel Community Center

Located on Third Street in Kiel, the Community Center hosts community meetings and the senior nutrition program. It can also be reserved for group functions and is the location for Kiel Nutrition Site.

Kiel Historical Home

This structure is located at Third and Fremont Streets. It is open by appointment for group tours and during special community events.

Stoelting House

Located at 309 Indian Hill, the Stoelting House is primarily used as a public meeting facility.

OUTDOOR RECREATION INVENTORY

Community Sites

The city of Kiel has various outdoor park sites available which provide the public with a variety of opportunities. Map 6.5 illustrates the location of the recreational facilities located within the city.

Beach Park

Located on the Sheboygan River behind the Kiel Community Center. This park is primarily used for passive recreational opportunities.

Belitz Park

Located off of Belitz Drive, in the southwestern portion of the city.

Big Rock Park

This one acre triangular parcel of open space is bordered by Calumet Avenue, Sheboygan Avenue and Eighth Street and simply provides the neighborhood playground and picnic facilities.

Boy Scout Park

This three acre park facility is located south of Fremont Street, along the Sheboygan River. The Boy Scout Park offers more passive recreation to the public.

Conley Park

Located on the Corner of Raider Heights and Dewey Street.

Duerwaechter Park

This recreational facility is also currently under development and located within the Rockville subdivision.

Fire Station Park

This one acre neighborhood recreational area is located on the Sheboygan River behind the Kiel Fire Station. This park facility is primarily used for passive recreation activities.

Hingiss Park

This 12 acre park is located on 12 acres of floodplain land with 1,000 feet of shoreland on the south bank of the Sheboygan River. Rising away from the river, the park has an excellent stand of trees covering a large portion of its area. Recreational opportunities are provided with plenty of open space for picnicking, walking, and enjoying nature. The park also includes playground equipment and a shelter for gatherings. The Kiel Jaycees Footbridge, which links downtown Kiel to Hingiss Park, is just one of several ways to access this recreational facility.

Karls Sports Terrace

Located in the River Terrace subdivision, this park facility consists of soccer fields, a pond for ice skating, a sledding hill, etc. The recreational site also has paved parking facilities.

Kiel City Park

This nine acre park, located south of the Kiel Middle School includes a variety of playground and picnic facilities for the citizens of Kiel. There is also a shelter available at this park facility.

Kiwanis Park

Located south of East Fremont Street on the Sheboygan River, this four acre parcel of open space provides both picnic and playground facilities.

Lions Park

This two acre neighborhood park facility is located on the city's west side between Ninth and Tenth Streets, and serves the community with both picnic areas and active recreational areas. The park also has a shelter available to the public.

Sisson Park

This four acre community park, located in the far northeast section of the city on the Sheboygan River, provides various picnic facilities and open space for recreational activities.

Triangle Park

Triangle Park is a one acre recreational area located at the intersection of Fourth Street, North Street and Calumet Avenue. It is primarily use as an area for passive recreational activities.

Veterans Memorial Park

Located at the intersection of First Street and East Water Street on the Sheboygan River, this one-half acre parcel of open space provides for leisurely recreational activities.

Waack Park

This park facility is located in the Rockville subdivision and is currently under development.

Solomon Trail (Kiel - New Holstein Trail)

This walking/bike trail is located in the State Highway 57/32 right-of-way and extends from Kiel to New Holstein. In the future, this trail could continue from Kiel south on the rail corridor.

Sheboygan River walkway

A trail which includes a hiking and biking loop from Kiel to Rockville. Portions of this trail are also lighted.

National, State and County Facilities



Kiel Marsh Wildlife Area

Located south of the City of Kiel, this 804 acre state-owned natural area occupies land in Manitowoc, Calumet and Sheboygan counties. The habitat consists of brush, marsh, forest and open water. Recreation opportunities are available including Canoeing, fishing. There is also an abundance of wildlife including, Waterfowl, furbearers, northern pike, panfish, great blue herons and black terns.

A public boat landing site is available from 8th Street in Kiel.

Walla Hi County Park

The Walla Hi County Park located 3 miles east of Kiel in Manitowoc County consists of approximately 160 acres and provides a variety of recreational activities.

Other Recreation Facilities

Other recreational sites that are available for use include the elementary, middle and high school facilities. These facilities provide the community with park spaces for a variety of active recreational activities. Some of the facilities include: playgrounds, large playfields, basketball hoops, baseball diamonds, tennis courts, football field and track. The swimming pool located at Kiel High School also provides residents with recreational opportunities. The pool is operated by the Kiel Area School District and includes activities such as swimming classes for young people and open swimming for all ages at designated hours.

Golf Courses



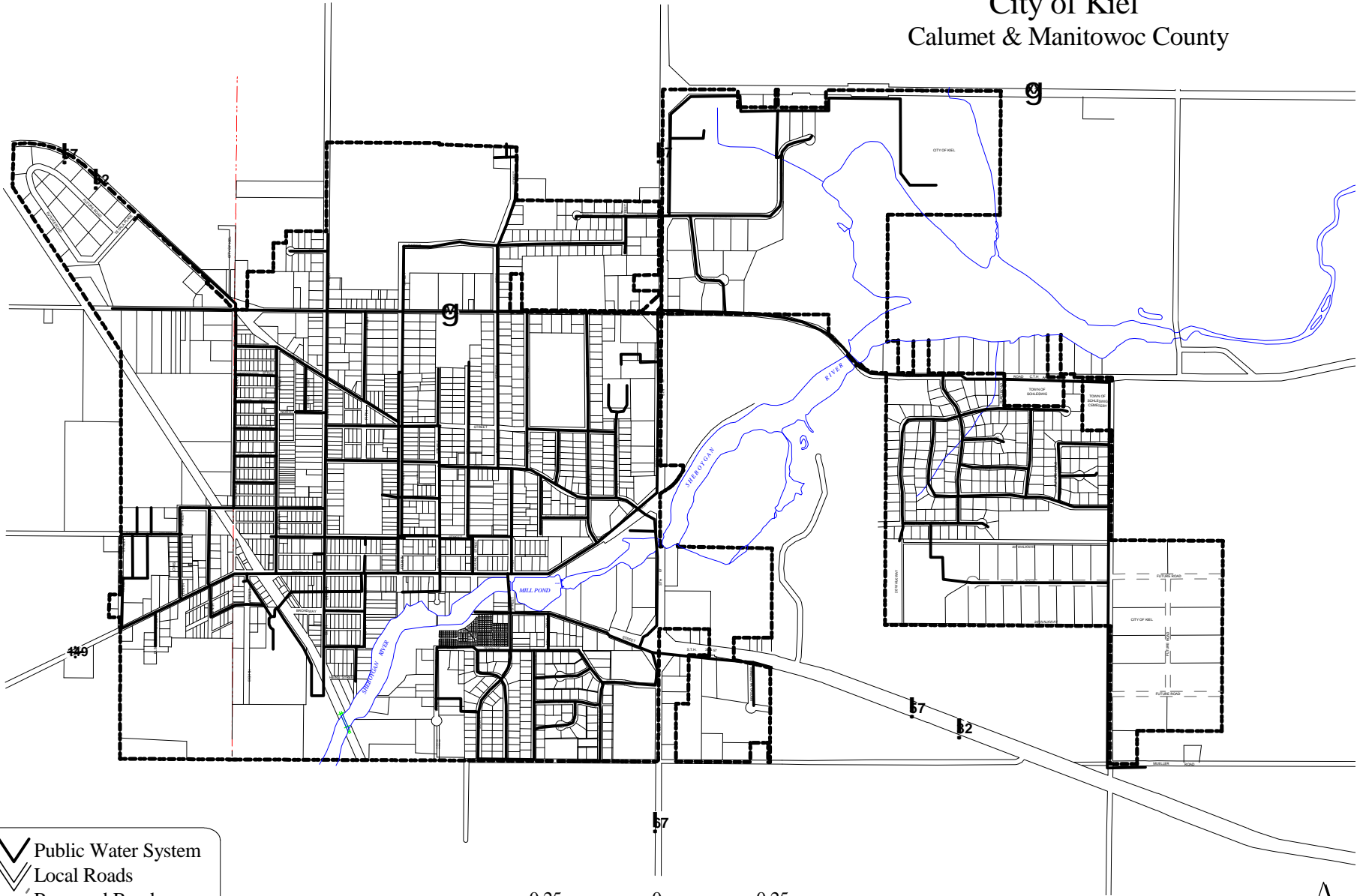
The nearest golf course is the Badger Creek Golf Course located at 11501 Meggars Road in New Holstein. The facility consists of an 18-hole golf course, practice range, golf supplies and a restaurant. The Clubhouse is also available for private parties of up to 75 people

Future recreation improvement plans for the city of Kiel in the next 10 to 20 years may include a fitness center (YMCA), development of trail systems through the city and the development of more park facilities.

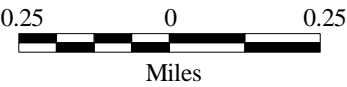
Public Water System

City of Kiel

Calumet & Manitowoc County



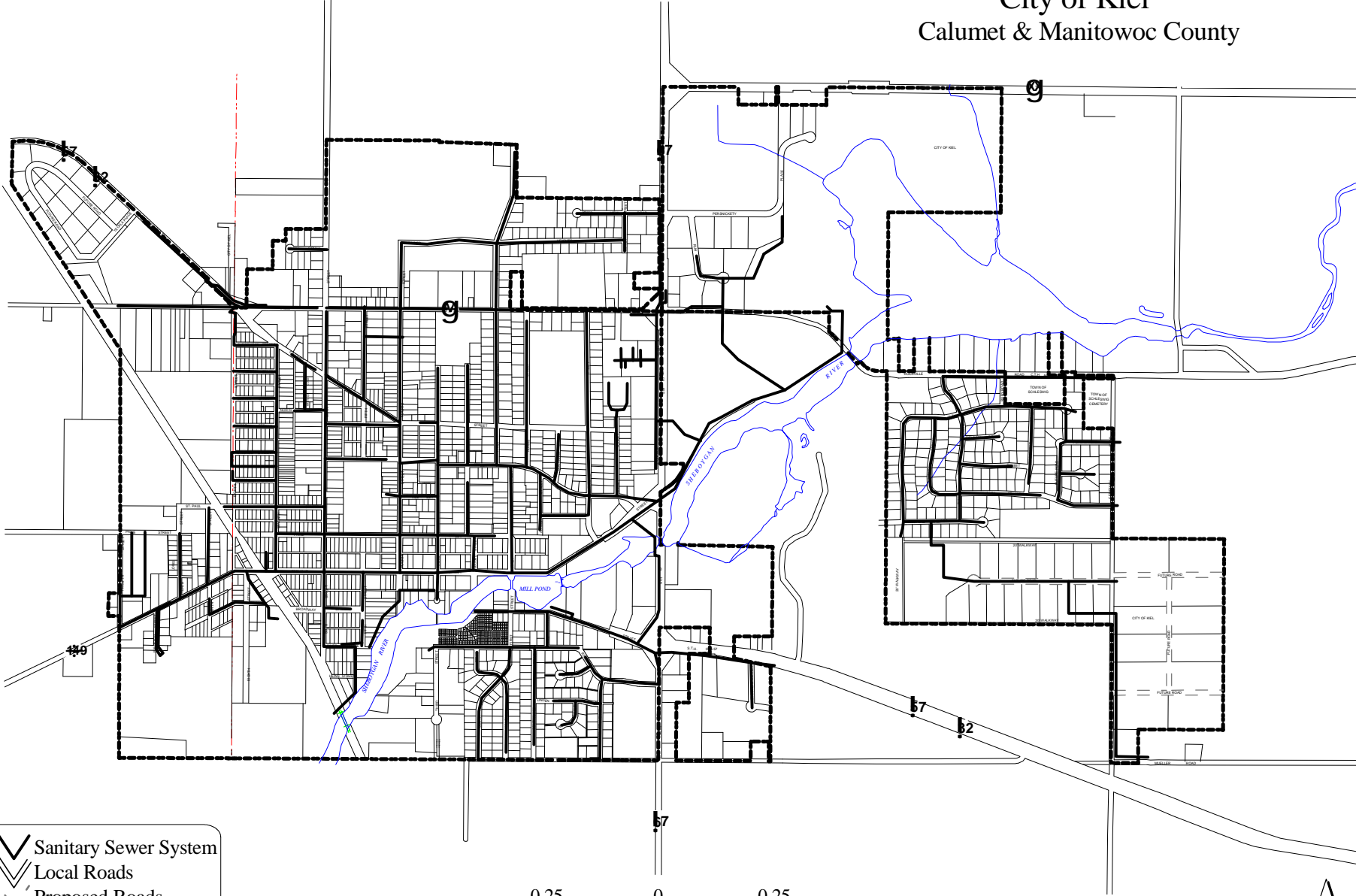
- Public Water System
- Local Roads
- Proposed Roads
- City Limits



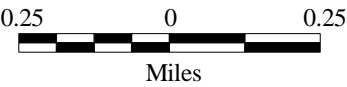
Source: City of Kiel; Bay-Lake Regional Planning Commission, 2002.

Sanitary Sewer System

City of Kiel
Calumet & Manitowoc County



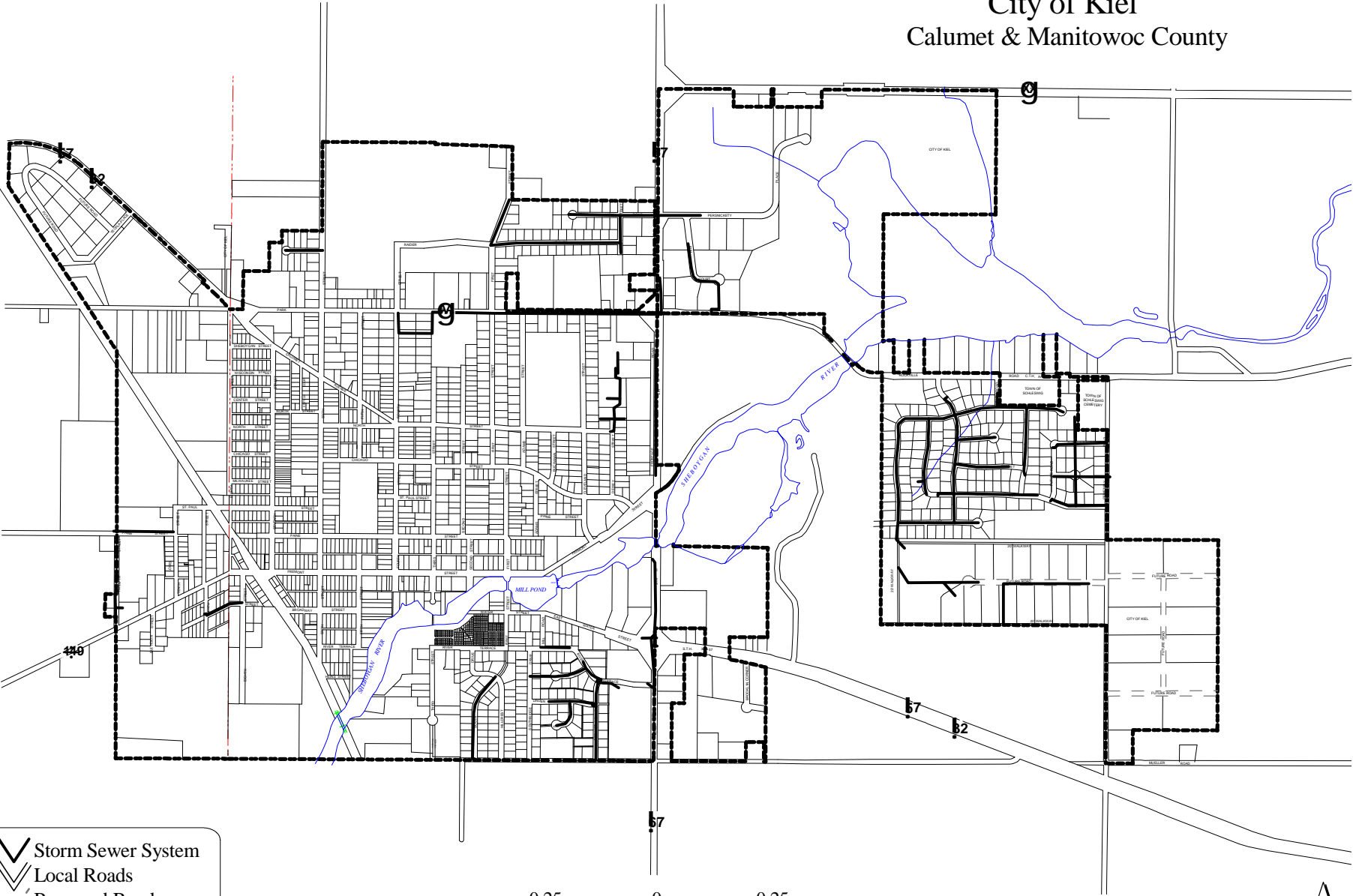
- Sanitary Sewer System
- Local Roads
- Proposed Roads
- City Limits




Storm Sewer System


City of Kiel

Calumet & Manitowoc County







Storm Sewer System



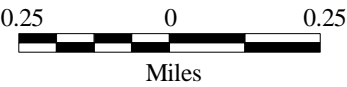
Local Roads



Proposed Roads



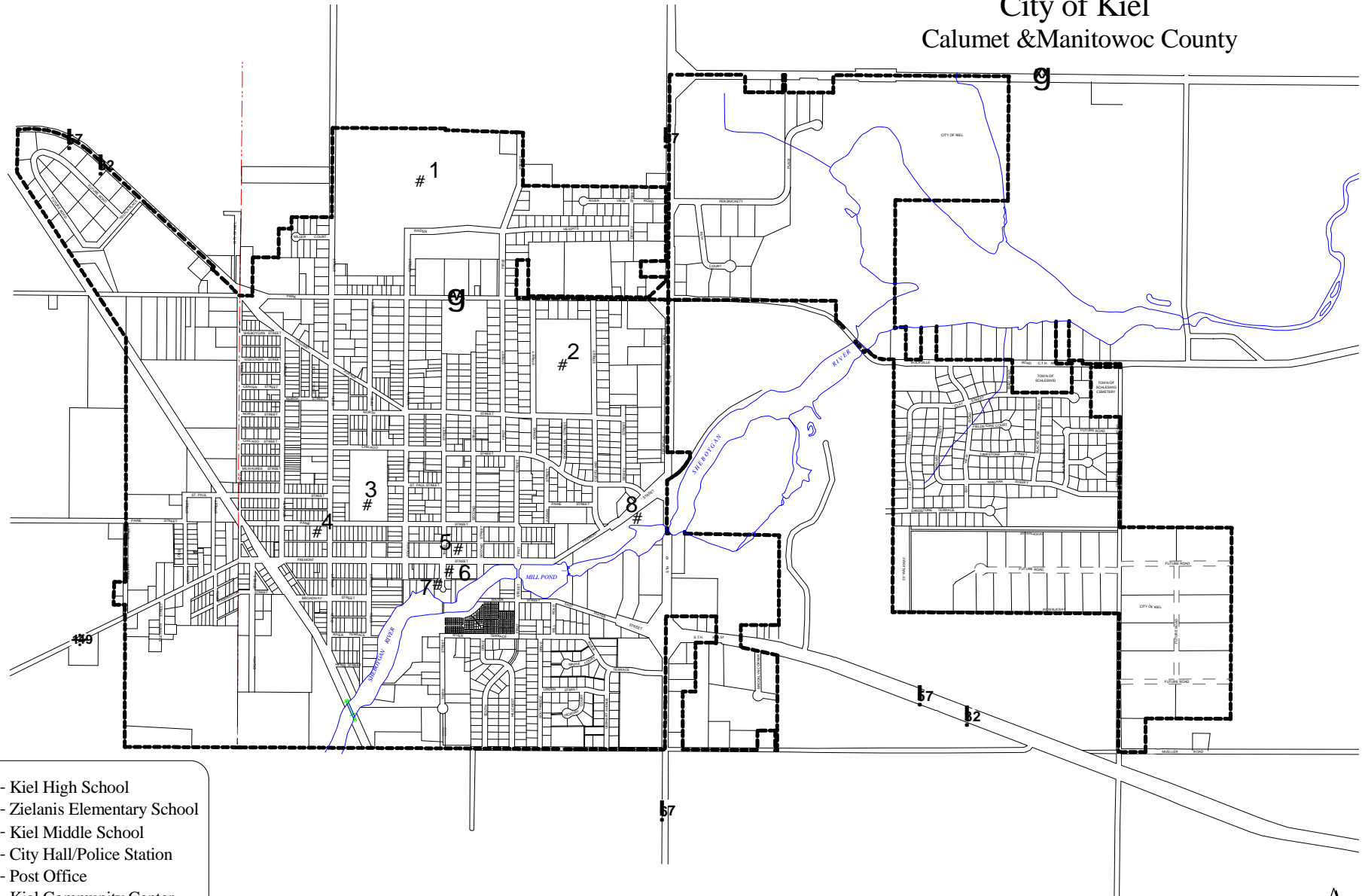
City Limits



Community Facilities

City of Kiel

Calumet & Manitowoc County



- 1 - Kiel High School
- 2 - Zielanis Elementary School
- 3 - Kiel Middle School
- 4 - City Hall/Police Station
- 5 - Post Office
- 6 - Kiel Community Center
- 7 - Kiel Public Library
- 8 - Fire Station

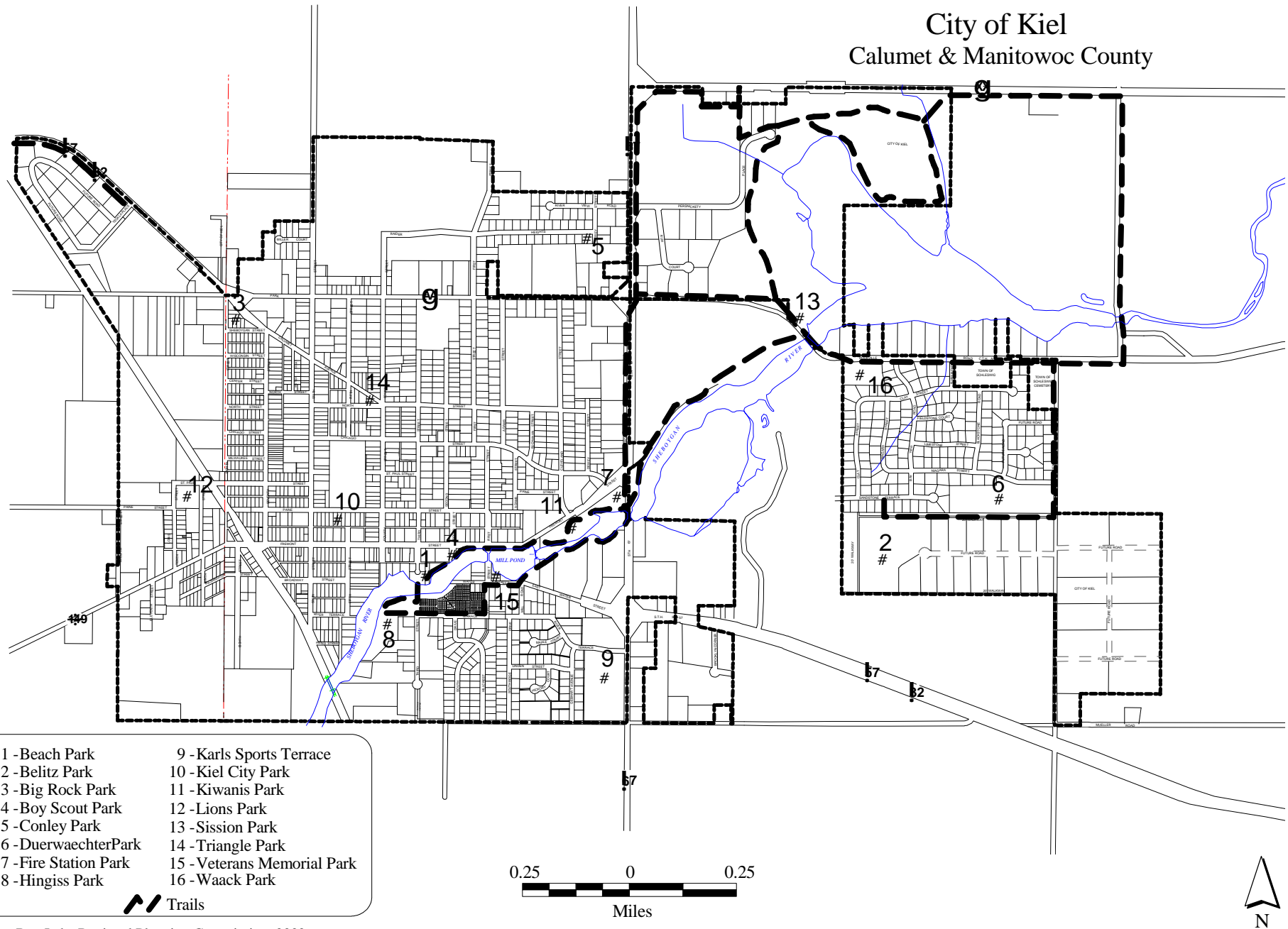
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Miles



Recreation Sites

City of Kiel

Calumet & Manitowoc County



Source: Bay-Lake Regional Planning Commission, 2002.

Chapter 7 - INTERGOVERNMENTAL COOPERATION

INTRODUCTION

The city of Kiel's relationship with its school district, neighboring communities, Manitowoc and Calumet counties, the Regional Planning Commission, and the state and the federal government can impact city residents in terms of taxation, planning, the provision of services, and siting of public facilities. An examination of these relationships and the identification of existing or potential conflicts can help the city address these situations in a productive manner.

SUMMARY AND IMPLICATIONS

The city of Kiel currently has several cooperative agreements with other municipalities. The intergovernmental cooperation issues identified within this element and in Chapter 6 of this document are fairly consistent and related well to identified issues found in the city survey that was completed early in the planning process. As the city gains more understanding and sophistication in planning, its ability and comfort in using tools (i.e. land trusts, purchase of development rights, conservation subdivision design, etc.) will be key in making this plan more effective. Learning how to make effective use of planning tools may serve as a joint goal of communities within the area. Gaining additional information/education on these tools can be provided by Manitowoc and Calumet counties, Bay-Lake Regional Planning Commission, UW-Extension, as well as other state agencies such as the WDNR.

INTERGOVERNMENTAL COOPERATION STRATEGY

Goal:

Have cooperation between the city of Kiel and any other governmental agency that makes decisions impacting the city and its planning area.

Objectives:

1. Develop coordination and sharing/joint ownership of community facilities, equipment and other services whenever possible.
2. Coordinate with adjacent communities on future planning projects to best maintain the character of the surrounding area.
3. Have improved participation with neighboring communities regarding meetings, workshops, mutual planning endeavors.

Policies:

1. Work with neighboring communities regarding land uses which lie across the city limits and within the planning area.
2. Explore the possibility of jointly developing and managing future recreational facilities.
3. Work cooperatively with surrounding municipalities to address possible boundary issues to minimize conflicts, to include staying aware of issues or regulations that

would impact development within the city planning area such as Conservation by Design funding options, etc.

Programs:

1. Promote cooperation and coordination between Manitowoc and Calumet counties regarding any county plans.
2. City Council or its representative (as the responsible party) monitor/work with the DNR, Army Corps of Engineers and the Environmental Protection Agency to ensure compliance with water quality regulations.
3. City Council or its representative (as the responsible party) will meet annually and work with the Regional Planning Commission or other planning agencies on city planning activities, and county and/or regional planning activities.
4. Mutual Assistance is a key program for any community. Communities enter into agreements or can legally request assistance from other jurisdictions. Either way, this form of providing services to the community is vital and will continue as a viable alternative to the city.

EXISTING ACTIVITIES AND PLANS

Adjacent Governmental Units

The city of Kiel is located within Manitowoc and Calumet counties. Kiel also shares its borders with the towns of Schleswig and New Holstein. The city has a good working relationship with these municipalities. The city has the power to annex while the towns do not. Therefore, the borders between the city and the towns are fixed until such a time that the city accepts lands to be annexed. In addition, Kiel's planning area (lands within 1.5 miles of its boundaries) extends into Sheboygan County and includes the towns of Rhine and Russell.

The town of Schleswig is the only adjacent community that has a Land Use Plan. Manitowoc County had a Land Use Plan done in 1966 and the Calumet County Comprehensive Plan was completed in 1970. The city is willing to participate in future planning activities of its neighbors in order to ensure future compatibility of goals and visions.

School Districts

The city of Kiel is located within the Kiel Area School District consisting of two Elementary Schools, a Middle School and High School. The city's relationship with the School District is good. Due to the planning activities of the city, the City Council or Plan Commission may wish to partake in any future School District studies regarding future improvements of school facilities. The city has no formal agreement with the School District for shared use of the facilities. However, the schools outdoor recreational facilities provide opportunities to residents of the city.

County

The city of Kiel is located in Manitowoc and Calumet counties and therefore the county has some jurisdiction within the city's extraterritorial planning area. The city and counties maintain a good open relationship with each other fostering general agreements and mutual respect. The city is

included within Manitowoc County's Park and Recreation Plan as well as the county's Farmland Preservation Plan. The court system uses the Manitowoc County Circuit Court to process city citations. The city will work with both Manitowoc and Calumet counties in developing county Comprehensive Plans, in order to promote city goals and visions as expressed within this document.

Region

The city is located in Manitowoc and Calumet counties, which are located in the northeast region of the State of Wisconsin. Manitowoc County is a member of the Bay-Lake Regional Planning Commission (BLRPC) which is the regional entity that the city is involved with, and Calumet County is a member of the East Central Wisconsin Regional Planning Commission. The BLRPC has a number of programs and plans in place covering natural resources, population projections, community plans, transportation plans, bike plans, etc. Manitowoc County as well as the city will participate within the regional framework plan that will constitute a Regional Comprehensive Plan for the area, in order to ensure the best interests of the city are reflective at the regional level. This Regional Plan will be completed sometime in 2005. In addition to this plan, the BLRPC has adopted an environmental corridor definition covering Manitowoc County, which has identified and mapped key natural features with the intent to preserve and further protect them based upon each features importance to the wellbeing of the region.

State

The city's relationship with the State of Wisconsin is one which deals mainly with issues related to transportation (WisDOT) and natural resources (WDNR). The city has accepted grant monies to develop this plan. In so doing, the city will adhere to the minimum requirements of the identified comprehensive plan elements identified by the Office of Land Information Services (OLIS).

INVENTORY OF PLANS AND AGREEMENTS UNDER S. 66.0307, S. 66.0301 OR S. 66.0309

Cooperative Boundary Plan

Currently, the city has not entered into a boundary agreement with any municipality. State Statutes 66.0307 and 66.0301 allow municipalities to enter into agreements regarding the location of municipal boundaries. The Cooperative Boundary Plan is any combination of cities, villages, and towns that may determine the boundary lines between themselves under a cooperative plan approved by the DOA. The cooperative plan must be made with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the territory covered by the plan which will, in accordance with existing and future needs, best promote public health, safety, morals, order, convenience, prosperity or general welfare. Cooperative boundary plans span at least a 10-year period. Additionally, Cooperative boundary agreements are a tool that could also be used for service sharing between local units of government.

The majority of Municipal Boundary Plans or Agreements are conducted between a town and a city or village. However, in order to promote harmonious development in the area, the city may want to discuss Boundary Agreements with the surrounding towns in the future.

Annexation

Wisconsin Statute 66.021 provides for a means to annex lands. Annexation is the transfer of one or more tax parcels from a town to a city or village. Consent of property owners is but one of the procedures in annexation.

Extra-Territorial Subdivision Regulation

State Statutes allow an incorporated village or city to extend Extra-Territorial Plat Review over surrounding unincorporated areas. This helps cities or villages protect land uses near its boundaries from conflicting uses outside its limits. The extra-territorial area extends for 1.5 miles for villages and cities under 10,000 people. For cities over 10,000 people, the area extends to three miles. The city of Kiel has an Extra-Territorial Plat Review of 1.5 miles.

Extra-Territorial Zoning

State Statutes allow an incorporated village or city to extend Extra-Territorial Zoning over surrounding unincorporated areas. The extra-territorial area extends for 1.5 miles for the city of Kiel, however the entire jurisdiction does not need to be included in the zoning. Extra-Territorial Zoning requires a joint effort between the town and the city or village to develop a plan for the area to be zoned. The extra-territorial zoning is then established according to the developed plan. The city does not have extra-territorial zoning agreements with the surrounding towns.

Law Enforcement; Mutual Assistance

Upon the request of any law enforcement agency, including county law enforcement agencies, personnel may assist the requesting agency within the latter's jurisdiction. While acting in response to a request for assistance, the responders shall be deemed employees of the requesting agency.

Intergovernmental Cooperation

This agreement allows local agreements to be entered between state, cities, villages, towns, counties, regional planning commissions, and certain special districts, including school districts, public library systems, public inland lake protection and rehabilitation districts, sanitary districts, farm drainage districts, metropolitan sewerage districts, and sewer utility districts, Native American tribes or bands, as well as others.

This is the most common form of agreements made between communities, usually regarding fire and rescue services. Kiel currently has law enforcement agreements with the Manitowoc County Sheriffs Department and surrounding communities for assistance. The Kiel Fire Department has agreements with the surrounding communities and also houses the town of Schleswig fire vehicles. Intergovernmental Cooperation agreements are also available for revenue sharing, determining land use within a designated area, and in setting temporary municipal boundaries.

County and Municipal Aid

Payments to municipalities and counties under a new program entitled "county and municipal aid will begin in 2004,." The program would be authorized under s. 79.035 of the statutes and funded from a newly-created appropriation entitled "county and municipal aid account" [s. 20.835 (1) (db)]. Each municipality and county would receive a payment in 2004 based on the sum of its

payments in 2003 under the expenditure restraint, shared revenue, small municipalities shared revenue and mandate relief programs. In addition, a new program would be created that would provide "consolidation incentive payments" to municipalities and counties that agree to consolidate municipal or county services, beginning in 2004.

OTHER

There were no other agreements identified for inclusion within this plan. Additional agreements in the future should be referenced here within this document.

INVENTORY OF EXISTING OR POTENTIAL CONFLICTS

Examples of Positive Intergovernmental Cooperation in the Area.

1. Law Enforcement, Emergency Service and Fire Agreements, and Mutual Aid Agreements;
2. Continued cooperation with the surrounding communities during the comprehensive planning process;
3. County supportive services;
4. Local, County and State cooperation regarding the development of the Solomon Trail (Kiel/New Holstein Trail)
5. Kiel's cooperation with the town of Schleswig regarding preservation of the Rockville Dam.

Many of the above are achieved through agreements that are largely informal, others more formal. Regardless of the formality the city should strive to maintain and build upon these intergovernmental efforts already undertaken and which are considered to be positive and beneficial to the municipalities involved.

Other Issues and Opportunities Requiring Intergovernmental Cooperation to be Successfully Handled

1. Additional planning cooperation at the county level and needing more assistance from the UW-Extension resources of Manitowoc and Calumet counties;
2. Work with surrounding communities, DNR, Bay-Lake RPC, etc. to attain funding sources and develop methods to preserve/enhance the Rockville Dam and surrounding natural areas;
3. Work with surrounding communities in acquiring additional lands for recreational opportunities.
4. Discuss consolidation of services with adjacent communities and the counties to be more efficient with the provision of services and utilize the "consolidation incentive payment" program.

Opportunities to Foster Intergovernmental Cooperation

1. More meetings among governmental units on specific issues.
- Staying aware of Kiel's neighbors' comprehensive plans.

- Discussing Kiel's Comprehensive Plan with all of its neighbors will identify common ideals, concerns and goals.
 - Setting up sub-committees to deal with similar problems will help the city address them more efficiently.
2. Educate citizens on land use planning utilizing the newspapers and newsletters.
- Identify key topics for discussion/education campaign.
 - Contact UW-Extension, Bay-Lake RPC, etc. for information sheets/background information to be presented to public.
 - Establish a newsletter for the city.
 - Develop educational displays for use in city activities/ annual meetings, or events the city participates in, community picnics, etc.
3. Help in determining the costs of growth.
- Obtain published documents detailing true costs of developments.
 - Ensure the complete costs of any proposal are known and that future costs associated with the proposal are also hypothesized.

Chapter 8 - LAND USE

INTRODUCTION

The land use portion of this plan is intended to present information on the current (2001) land use within the city of Kiel and its extraterritorial area and to articulate the direction for future growth and development within the incorporated area of the city and its unincorporated extraterritorial area of one and one half miles (1½) outside the current municipal boundary. A windshield land use survey was completed by Bay-Lake Regional Planning Commission in September of 2001.

The goals, objectives and information within this chapter, along with the demographic trends detailed earlier within this document, will be utilized to develop a projection of future land use demands and assist in guiding the selection of future locations for specific types of land uses. Existing land use controls are also inventoried to assist in the development of the General Plan Design. The General Plan Design portion of this chapter identifies the wishes of the community on how development should occur within the plan's timeframe and it provides direction to residents, the business community, and government officials along with their staff. The General Plan Design will serve as a guide to the City Plan Commission members and the City Council in their decision making process.

LAND USE STRATEGY

Goal: General Plan Design

Promote future development that will meet the needs of the city while protecting and enhancing its visual and historical character, promoting environmental protection, conserving natural resources, meeting the needs of social and economic forces, providing for adequate services and facilities, and ensuring compatibility of future land uses.

Objective:

Ensure that all growth and development occurs in a planned and coordinated manner that will maintain or improve the quality of life associated with the character of the city for both existing and future residents.

Policies:

1. Utilize the Comprehensive Plan as an illustration of the city's overall development policy.
2. Update the city's Municipal Codes, Official Map and Subdivision Ordinance to be consistent with the Comprehensive Plan.
3. Allow future development in an orderly way to allow for proper distribution of community services.
4. Work with the towns of Schleswig, New Holstein, Russell, and Rhine, and Manitowoc, Calumet and Sheboygan Counties to ensure compatible growth within the city's extraterritorial area.
5. Develop design standards to be followed by developers in planning their projects.

6. Prior to designating new areas for growth, it shall be shown that the new development is consistent with the city's comprehensive plan.

Objective: Residential

Strive to maintain the stability and integrity of existing neighborhoods while encouraging the development of new residential areas sufficient to meet the housing needs of the projected population. A community that is characterized by stable neighborhoods, a variety of housing types and densities, pedestrian accessibility of neighborhoods and parks/parkways, inclusion of open green spaces within developments, new trailways, and environmental protection is most desired.

Policies

1. Protect residential neighborhoods from impacts of non-residential uses not appropriate for the neighborhood. Residential areas should be distanced, buffered, or otherwise mitigated from physical hazards, unhealthy conditions, and protected from traffic, noise, and incompatible uses.
2. Infill development needs to be designed to be compatible with the established neighborhood through transitions in housing density, screening, or other appropriate method.
3. Provide for sufficient densities within the planning area to meet the current and future needs of the local population.
4. Provide, through land use regulations, the potential for a broad range of housing choices to meet the needs of the community.
5. Housing developments shall conform to the zoning districts that they are contained within. Modified conformance standards will be considered in areas that have been designated for conservation subdivision designs.

Objective: Commercial

Encourage harmonious and well-planned commercial development which will serve the needs of the city and area residents, tourists and the specialized needs of the rural areas.

Policies:

1. Areas already characterized by commercial development and where city services and facilities are available should be given preference.
2. Ready access to adequate public water supply, public sanitary sewer service, stormwater drainage facilities, electrical power, natural gas supplies, and communications should be available.
3. Points of vehicle entry and exit should be properly located and controlled to prevent safety problems and traffic congestion on adjacent arterial streets. Adjacent streets should be capable of accommodating the increased traffic associated with the commercial development.

4. Adequate landscape screening “buffer” should be provided between commercial uses and adjacent noncommercial uses.
5. Adequate building setbacks should be provided from abutting streets and highways.
6. Maintain the historical look of the existing commercial districts.

Objectives: Industrial

1. Provide planned locations for industrial parks and/or business parks that have access to major traffic routes but are appropriate for the character of the city. By focusing development in these specific areas, the “small town” character of the city will be better served.
2. Continue to expand and diversify the city’s industrial base
3. Future industrial uses shall be directed to locations within the community where it is deemed desirable by the city.
4. Industrial uses should not be intermixed with retail commercial sales, residential, governmental, or institutional uses.

Policies:

1. To be permitted, the industrial development shall not detract from the community’s appearance, over burden community services of the city nor clutter any “Door Way” into the city. Anniversary
2. Encourage the development of technology-based industries to diversify the city’s overall industrial base.
3. The city should consider developing a set of design standards for industrial/business park settings with consideration to the following nine elements:
 - A. Landscaping and fencing may be designed to establish a clear edge along the side of the site that is visible to motorists and others passing by or viewing the site;
 - B. Design entries to the site as gateways for vehicular entrances, marked with decorative items or other features more prominent relative to the other features surrounding the site or road. The construction materials should be similar to those used for the building and other site amenities;
 - C. Establish lighting and sign controls allowing for soft lighting (limited only to the site) and signs that fit the city’s “small town” character;
 - D. Integrate road drainage with site design;
 - E. Encourage landscaping continuity not fragmentation;
 - F. Whenever possible, save existing trees;
 - G. Utilize double or single rows of trees or shrubs when a visual screen is needed;
 - H. Make service areas attractive; and
 - I. Make vehicle entrances appealing to motorists.

4. The site shall have available adequate water, sanitary sewer, stormwater drainage natural gas and electric supplies.
5. The site shall have direct access to an arterial and highway system.
6. The industrial sites shall have adequate buffering from adjacent non-industrial uses.
7. The site shall have adequate points of entry and exit, an internal street system, along with adequate off-street parking and loading facilities.

Objective: Natural and Cultural Resources

Encourage preservation of water resources, unique open spaces, and other cultural and natural resources while furthering the integration of existing natural areas (contiguous woodlands, meadows, open spaces, etc) into site designs creating environmental corridors throughout the city for wildlife habitat and/or pedestrian linkages.

Policies:

1. Promote residential subdivisions that relate to natural and cultural features.
2. Utilize the environmental corridor designation of the General Plan Design to promote/preserve wildlife habitat and trails where appropriate.
3. To preserve buildings (churches, historic homes and buildings), structures (bridges, etc.) and other landscape features (cemeteries, etc.) that are the city's cultural history.
4. Promote trail systems within natural corridors developed with a number of connecting points to existing pedestrian paths/sidewalks.
5. Carefully control the types of developments within and adjacent to the comprehensive plan's identified environmental corridors (depicted on the General Plan Design) by establishing an overlay district, or by rezoning the lands to the Conservancy District under the city's zoning code.

Objective: Community Services

The city will maintain adequate public services throughout the planning period in order to reach the desired vision of this plan regarding future land use development.

Policies:

1. The City Plan Commission and City Council will continue to monitor services provided to city residents and explore options of maintaining/improving upon the level of existing services.
2. The City Plan Commission and City Council will work with the adjoining towns and counties to help provide future services as effectively and efficiently as reasonably possible.
3. The city will continue to address the facility and program needs of the elderly population and those approaching senior status.
4. The city will explore the child care facility needs.

Program:

The City Plan Commission has the responsibility to review and update the General Plan Design to ensure it continues to meet the stated goals and objectives stated above as well as those stated goals and objectives outlined in previous elements of the plan.

Inventory of Existing Land Use Controls

This section inventories and discusses the land use controls which currently exist within the city, which may affect, or restrict, the use of land for specific purposes. These controls should be reviewed periodically to make sure that they assist in implementing the General Plan Design for future development within the city.

Existing Comprehensive Plans

The city of Kiel has a long tradition and commitment in community planning . This will be the third plan for the city. The first plan, *City of Kiel, Wisconsin; General Plan Studies*, was completed in 1964 and was created by the Manitowoc County Planning and Parks Commission. The goal of this plan was “to make Kiel a fine place in which to live a full and satisfying life; a fine place to work, play, shop, learn, mature, prosper, remember, return to, worship, retire to a fine place to do all of the things that make up a good life”. This plan also stated that planning is dynamic and should be reviewed, and updated. This was followed through in 1988 when Bay-Lake Regional Planning Commission prepared the document *Comprehensive Plan 1988 Update; Kiel, Wisconsin*. The major issues in this plan included planned industrial development, redevelopment of central business district, expanded housing opportunities and public and community facilities, and the need for sufficient land for future development opportunities. This 20 Year Comprehensive Plan update illustrates Kiel’s continuous dedication to local planning.

Zoning Ordinances

The city of Kiel has established a zoning ordinance titled Chapter 17, Kiel Zoning Code. The purpose of the zoning ordinance is to promote the public health, safety and general welfare. In order to accomplish this purpose, the ordinance regulates and restricts the use of property. The ordinance divides the city into these nine districts:

I-1 General Industrial District	R-1 Residential District
I-2 Limited Industrial District	R-2 Residential District
B-1 Fremont Commercial District	R-3 Multiple Residential District
B-2 Commercial Service District	M-1 Mobile Home Park District
C-1 Conservancy District	

The Wisconsin enabling legislation requires that zoning ordinances be made in accordance with a comprehensive plan. This has been interpreted by planning professionals to mean that the zoning ordinance must be based on a master plan or land use plan and that the ordinance must seek to implement that plan. The Kiel Zoning Code, which was recently updated in April 2001, is based on the 1988 Comprehensive plan. Below gives the general purpose for each district within the city. For more information on restrictions and permitted uses, please refer to the Kiel Zoning Code. (Map 8.2)

General Industrial District I-1

The intent and purpose of this district is to provide for regulation of zoning for manufacturing and industrial operations which, because of their physical and operational characteristics, may be objectionable to non-residential, non-manufacturing businesses and residences. It is also intended that the location of these uses be reviewed by the City Plan Commission to insure compatibility with adjacent land uses.

Limited Industrial District I-2

The intent and purpose of this district is to provide for any manufacturing, industrial or commercial operations which, because of their physical and operational characteristics, would not be detrimental to the surrounding area or to the community as a whole by its physical and operational characteristics such as noise, dust, smoke, odor etc. These establishments are subject to regulatory controls as will reasonable insure compatibility in this respect.

Fremont Commercial District B-1

This district provides for the long existent and developed commercial district along Fremont Street. Yard Setback and other similar requirements are in many cases not met by structures due to their long existence in the area and change would not now be reasonably feasible.

Commercial Service District B-2

This district provides for the best development and most functional commercial service district and is governed by standards set forth by the City Plan Commission and the Common Council. It is taken into account that the Fremont Street district may not be reasonably feasible to alter buildings. The Commercial Service District is also intended to accommodate the heavy service industries at locations directly accessible to the city's arterial and transportation systems where they can conveniently serve the business and industrial areas of the city.

Conservancy District C-1

The intent and purpose of establishing this district is to provide for certain open land uses, to preserve natural water courses, to prevent premature and uneconomical subdivision and development of the land and to provide a reserve of land for the future orderly development of the city.

Residential District R-1

This district provides land for buildings and structures used only for one or more of the following purposes, subject to the provisions of this section: single family dwellings, accessory buildings and uses; churches and public private or parochial schools; public parks, playgrounds and recreation areas; public buildings and public utility buildings subject to the approval of the Plan Commission; railroad right-of-ways not including yards; swimming pools, private; temporary real estate signs, home occupations, family day care homes; and community living arrangements.

Residential District R-2

This district provides land for buildings and structures used only for one or more of the following purposes, subject to the provisions of this section or other applicable sections of the Zoning Code: (a) any use permitted in the R-1 Residential District and (b) two family dwellings, accessory buildings and uses.

Multiple Residential District R-3

This district provides land for buildings and structures used only for one or more of the following purposes, subject to the provisions of this section or other applicable sections of the zoning code: any use permitted in the R-2 Residential District and multiple family dwellings, accessory buildings and uses.

Mobile Home Park District M-1

The Mobile Home Park District is intended to regulate design and arrangement of mobile home parks and the residential use of mobile homes therein. For more information see section 12.04(6) of the Kiel Municipal Code.

Kiel Subdivision Ordinance

The city of Kiel's subdivision and platting ordinance is contained in Chapter 18 of the City of Kiel Code of Ordinances. The purpose of this ordinance is to promote the public health, safety and general welfare of the community and the regulations are made with consideration of the character of the city with a view to conserving the value of the building placed upon land, providing the best possible environment for human habitation and encouraging the most appropriate use of land throughout the city. The ordinance regulates any division of land within the city or its extraterritorial plat approval jurisdiction which results in a subdivision. A subdivision is defined three ways: (1) as a division of land which creates five or more parcels or building sites of 1.5 acres (65,340 square feet) or less each; (2) five or more parcels or building sites of 1.5 acres each or less in area created by successive divisions with a period of five years, or (3) the act of division which involves the creation of a new street. The ordinance also regulates any other land division other than a subdivision which a plat has not been approved or recorded, but requires a certified survey map (CSM). The ordinance also contains design standards for streets, intersections, curb and gutter, lots, storm water drainage facilities, sanitary sewer, and utilities that must be complied with in order for the subdivision to be approved by the city. This subdivision and platting ordinance along with other tools, provides a way of implementing the city's zoning.

Official Map

An official map is intended to implement the city's plan for streets, highways, parkways, parks and playgrounds and drainageways. Its basic purpose is to prohibit the construction of buildings or structures and their associated improvements on land that has been designated for current or future public use. The city's official map was adopted in 1999 and illustrates the future growth of the city of Kiel. The map should follow the concepts created by a general plan design.

Erosion Control Plan

Under s. 92.10, Wis. Stats., those counties that are designated as priority counties by the Department of Agriculture, Trade and Consumer Protection (DATCP) must prepare and adopt erosion control plans. The county land conservation committee prepares plans to conserve long-term soil productivity, protect the quality of related natural resources, enhance water quality and focus on severe soil erosion problems. The Manitowoc County Soil Erosion Plan was developed in 1989.

City of Kiel Floodplain Ordinance

The city's floodplain ordinance is contained in Chapter 20 of the City of Kiel Code of Ordinances. The purpose of the floodplain ordinance is to protect life, health and property; discourage the victimization of unwary land and home buyers; and minimize the spending of public moneys for costly flood control projects, rescue and relief efforts, business interruptions, damage to public facilities, and the occurrence of future flood blight areas on floodplains. The floodplain ordinance is in affect for all areas within the city limits that are covered by a "regional flood" or those areas designated as floodplains on the Flood Insurance Study Maps produced by the Federal Emergency Management Agency.

Kiel Shoreland-Wetland Ordinance

The city's shoreland-wetland ordinance is contained in Chapter 23 of the City of Kiel Code of Ordinances. The purpose of the shoreland-wetland ordinance is to:

- a) Promote the public health, safety, convenience and general welfare.
- b) Maintain the storm and flood water storage capacity of wetlands.
- c) Prevent and control water pollution by preserving wetlands which filter or store sediments, nutrients, heavy metals or organic compounds that would otherwise drain into navigable waters.
- d) Protect fish, their spawning grounds, other aquatic life and wildlife by preserving wetlands and other aquatic habitat.
- e) Prohibit certain uses detrimental to the shoreland-wetland area.
- f) Preserve shore cover and natural beauty by restricting removal of natural shoreland cover and controlling shoreland-wetland excavation, filling and other earth moving activities.

The shoreland-wetlands zoning district includes all wetlands in the municipality which are five acres or more and are shown on the final Wetland Inventory Map that is part of the ordinance. The ordinance also includes lands which are within 1,000 feet of the ordinary high water mark of lakes, ponds and flowages; and 300 feet of the ordinary high-water mark of navigable rivers or streams, or to the landward side of the floodplain, whichever distance is greater. For more information on permitted uses and restrictions in the shoreland-wetlands district, refer to Kiel's shoreland-wetland ordinance.

Shorelands

The city of Kiel is unique in that its borders lie within two counties, Manitowoc and Calumet. Therefore, in areas adjacent to the city, the shoreland regulations would follow the ordinance of the county in which the land lies within. Both Manitowoc and Calumet counties have a shoreland

ordinance in place. The purpose of these ordinances is to protect land within the shoreland zone of 1,000 feet of the ordinary high-water mark of lakes, ponds and flowages; and 300 feet from the ordinary high-water mark, or to the landward side of a floodplain, of the navigable reaches of rivers or streams, whichever distance is greater. For more information, please refer to the shoreland ordinance for each county. (Map 8.1)

County Farmland Preservation Plans

The Farmland Preservation Plans of Manitowoc, Calumet and Sheboygan counties identify areas which are of prime agricultural importance for which the owners may partake in allowable tax credits under the Farmland Preservation Program. Each plan contains its own overall purpose or goal, which is essentially to preserve valuable agricultural lands and environmentally significant areas, while providing a guide to the county, cities, villages and towns for well planned growth. In addition, each plan has similar categories including agricultural preservation areas, environmental areas, transitional areas and excluded areas. For more information on the *Farmland Preservation Plan, Manitowoc County, Wisconsin (1981)*, the *Calumet County Farmland Preservation Plan (1980)*, or the *Sheboygan County Farmland Preservation Plan (1985)*, contact the representing county or the Bay-Lake Regional Planning Commission.

Sewer Service Area Plan

Due to the city being under a population of ten thousand citizens, the city is not required to develop a sewer service area plan as is described in NR 121.

CURRENT LAND USE INVENTORY

A detailed field survey of the City of Kiel land use was conducted in the September of 2001. This land use information is compiled into generalized land use categories, and is presented in Table 8.1. A description of each generalized land use is also provided. A more detailed table showing the detailed land use of the city and planning area is shown in Appendix B.

Planning Area

The planning area consists of a 1½ mile radius around the existing city boundary. The planning area extends into three counties, Manitowoc, Calumet, and Sheboygan and encompasses a total of approximately 19,276 acres. Of this, 1,520 acres are within the city limits of Kiel. The majority of the lands within the planning area are croplands, woodlands, and other natural areas. In the city, the acreage is almost split in half between developed and non-developed lands. The text below describes the land uses within the city limits. Table 8.1 lists the acreage for the entire planning area and the city, as well as the percentage of developed and undeveloped land within the city. Map 8.3 shows the land use in the city and Map 8.4 shows the land use within the planning area.

Table Chapter 8 .1: City of Kiel Land Use Calculations

Land Use Type	Planning Area Acres	City Acres	Percentage City Land	Percentage City's Developed Land
DEVELOPED				
Residential	589.04	321.00	21.16	40.92
Single Family	548.73	284.27	18.74	36.24
Two Family	19.36	18.44	1.22	2.35
Multi Family	10.97	10.78	0.71	1.37
Mobile Homes	9.11	7.51	0.50	0.96
Vacant Residential	0.87	0.00	0.00	0.00
Commercial	73.66	54.16	3.57	6.91
Industrial	177.16	40.01	2.64	5.10
Transportation	846.97	216.90	14.30	27.65
Communications/Utilities	20.53	16.68	1.10	2.13
Institutional/Governmental	96.63	83.04	5.47	10.59
Recreational	49.79	38.18	2.52	4.87
Agricultural Structures	201.40	2.82	0.19	0.36
Land Under Development	11.62	11.62	0.77	1.48
Total Developed Acres	2,066.79	784.40	51.71	100.00
UNDEVELOPED				
				Percentage Undeveloped Land
Croplands/Pasture	9,524.89	191.30	12.61	26.11
Open Space	65.10	20.67	1.36	2.82
Woodlands	5,606.52	45.25	2.98	6.18
Other Natural Areas	1,665.73	426.41	28.11	58.20
Water Features	346.90	49.01	3.23	6.69
Total Undeveloped Acres	17,209.15	732.64	48.29	100.00
Total Land Area	19,275.93	1,517.04	100.00	

Source: Bay-Lake Regional Planning Commission, 2002.

Residential Land

Residential land accounts for the largest percent of developed land within the city at 321 acres or 41 percent of the developed land (21 percent of the total land in the city). This land is located primarily in the center of the city and is more sparse in the outskirts of the city. There is also a large subdivision on the eastern side of the city. Residential land is broken up into many categories. In the city of Kiel, the majority of the residential structures are single family. Two family (duplexes), multi family (apartments), mobile homes, and vacant or abandoned structures make up the rest of the residential category.

Commercial Land

Commercial land within the city accounts for 54 acres or seven percent of the developed land within the city. The commercial land is located primarily along three corridors: Fremont Street, Park Avenue and Frontage Road (STH 67). Business include but are not limited to gas stations, restaurants, bars, car dealerships, doctors, and retail stores. For more specific information on area businesses please contact the Kiel Area Association of Commerce or go to the website www.kielwi.org.

Industrial Land

Industrial land is land used for the extraction or transformation of materials, for fabrication of products, for wholesaling of products, and/or for long-term storage of products. Also included in this definition is large, private storage sheds for individual use. Kiel has about 40 acres of land dedicated to industrial use. Most of this land is on the west side of city including Kiel Foundry and Land O' Lakes.

Transportation

The land use category of transportation includes all land used for the movement of people and materials, including related terminals and parking facilities. In Kiel, this accounts for 217 acres or 28 percent of the city's developed land. This is the second largest category of developed land use in the city. The majority of this land is used for the local road system. Other uses include the railroad corridor and large parking lots.

Communication/Utilities

Communication and utilities are defined as land used for the generation, processing and/or transmission of electronic communication or of water, electricity, petroleum or other transmittable products and for the disposal, waste processing and/or recycling of byproducts. Within the city this accounts for 17 acres or two percent of the city's developed land and includes telephone dispatch centers, electric substations, water towers, wastewater or sewage treatment plants, landfills and recycling centers. Communications and utility facilities are discussed in greater detail in Chapter 6.

Institutional/Governmental

This land use category includes all land for public and private facilities for education, health or assembly; for cemeteries and related facilities; and for all government facilities used for administration or safety, except public utilities and outdoor recreation. Within the city this

category accounts for 83 acres of land. The majority of this is the high school in the northern part of the city. Other institutional or governmental facilities in the city include; city hall, post office, municipal garages, police/fire station, all educational facilities including day care, library, clinic, fraternal organizations (Lions or Elks clubs), cemeteries and churches.

Parks and Recreational

Land used in this category is for out of doors sport and general recreation, for camping or picnicking facilities, for nature exhibits or for the preservation of historic or cultural resources. Within the city limits there are 38 acres of land in recreation. This land is primarily parks and playfields scattered throughout the city. Park and recreational opportunities are discussed in greater detail in the community facilities chapter of this plan.

Agricultural Structures

Agricultural Structures include barns, silos or sheds used for agricultural purposes. Within the city there is only three acres of land in this category. The structures are all located on the outskirts of the city.

Undeveloped Land

Undeveloped land consists of woodlands, wetlands, crop and pasture lands, water features and any other undeveloped open space. There are 733 acres of undeveloped land in the city and are located on the outside edges of the city. The majority of this undeveloped land (426 acres) is natural areas without woodlands, such as wetlands, grasslands, or abandoned farm fields. Croplands and pasture make up the next largest undeveloped category at 191 acres of land. The remaining land is either in water features (49 acres), woodlands (45 acres) or open space (21 acres).

LAND SUPPLY

Amount

The amount of land available for development within the city's planning area is determined by factoring in the existing development, road right-of-ways and areas not recommended for development such as environmental corridors (wetlands with a 25 foot setback, floodplains, areas of steep slope, water resources with a 75-foot setback from the water resources, designated natural and scientific areas, parks and recreation areas, etc.). Areas for new development will need enough room for the development and the needed design elements that promote open space, buffering, etc., to enhance the area and minimize negative impacts. Taking in account the various factors which may affect development, the General Plan Design has identified an adequate amount of developable lands within the city, with additional lands available within the city's 1.5 mile extraterritorial boundary. In addition, undeveloped lands within the city limits have access to infrastructure and services needed to support the desired types of development.

Price

The price of developable lands vary depending on the surrounding land uses, location, access, services, along with other subjective factors. For example, residential prices can depend on whether a parcel has water frontage, is wooded, or has a vast amount of open space in and around

it. Waterfront properties generally attract higher price listings. Information obtained from the City of Kiel Assessor indicates that the average price for a residential property in the city of Kiel is approximately \$5,000 to \$6,500 per acre. These prices are affected primarily by the residential Tax Incremental Finance (TIF) districts that currently exist in the city. The land prices in the city will continue to fluctuate as the market continues to change. Contact any local realtor or the City of Kiel Assessor to obtain more information on residential, commercial and industrial land prices within the city.

Demand

Based on building permit information from the Wisconsin Department of Administration and Manitowoc and Calumet counties, the city of Kiel experienced an average of 27 housing permits per year for new residential construction from 1990 to 1999. If the trend were to continue, the town could expect approximately 540 new homes in the next 20 years. Additionally, the trend for many families has been to move from the large city to smaller peaceful communities or lower density areas within the region, and commute a hour or more to work.

The demand for commercial and industrial lands in the city has been relatively calm the last 10 years. Many of the businesses have been locating in the larger cities. With the increased development of highway commercial businesses, the demand for highway commercial in the city of Kiel will likely increase along STH 32/57 and STH 67 during the planning period.

Redevelopment Opportunities

The city of Kiel has several key areas for redevelopment within city limits and within its 1.5 mile planning area. Areas with the possibility for redevelopment include:

- Fremont Street sites that are beyond repair should be redeveloped in a way that maintains the overall downtown character, including scale, architectural styles, etc.
- Evaluate and devise a plan for the redevelopment of existing contaminated sites. Since the nature of the contamination and clean up for these areas differs by site, the redevelopment plans for each specific site may also differ.
- Target blighted areas within existing residential neighborhoods for redevelopment in such a manner that maintains the existing character of the surrounding neighborhood.
- Address blighted commercial and industrial areas for redevelopment in such manner that improves the aesthetics of the area, and maintains the character of the surrounding lands and the city overall.
- The abandoned rail line traveling south from the city could be redeveloped for recreational uses (i.e. hiking/biking trail).

LAND USE ISSUES AND CONFLICTS

The current development within the city of Kiel and surrounding extraterritorial area has occurred over several decades with few conflicts between uses. The city has maintained an accurate zoning map with compliance for both permitted and conditional uses. However, opportunities for conflict can arise, especially as residential growth occurs in historically agricultural areas, and commercial or industrial development occurs adjacent to residential uses.

Future ordinances stipulating adequate buffers, screening and setbacks will alleviate much of the incompatibility.

The General Plan Design addresses areas for uses with regards to their neighboring parcels and in many cases there are recommendations for additional steps to make the development practicable while limiting potential incompatibilities. For example, areas identified for possible highway commercial could include recommendations for additional design standards, to be determined by the city, to allow the least impact on neighboring uses.

ANTICIPATED LAND USE TRENDS

Analyzing data within previous chapters, the following land use trends were developed for the planning period. It is expected that these trends will influence the city's future growth and preservation. The city will need to address these trends over the next two decades in order to reach its desired vision. The following land use trends were used to provide direction in the development of the General Plan Design, along with the city's goals, objectives, and policies, the issue identification and the city wide survey results.

1. The demand for larger lot sizes will increase and the ratio of persons per household will decrease resulting in greater acreage needs to accommodate future residential growth.
2. Existing neighborhoods of higher density development will continue as new areas develop at lower densities.
3. The city of Kiel can expect an increase for dwelling units through the 20 year planning period.
4. The natural features of the city will continue to be maintained, preserving the natural vegetative structure resulting in the protection of wildlife habitats.
5. Fremont Street will continue to be the focus of multipurpose commercial activity (small retail, professional services, general purpose shopping)
6. The city businesses will continue to rely on both transient traffic and local area residents for business sales.
7. Commercial uses will likely continue to increase along main transportation corridors (STH 32/57 and STH 67) to capitalize on good visibility and ease of access.
8. The demand for industrial land is likely to increase.
9. The city will experience a demand in services as the median population age increases.
10. Extension of the Solomon Trail (Kiel/New Holstein Trail) south of the city is likely utilizing the existing rail corridor.
11. As computer technology continues to advance in global information (Internet), home occupations will likely increase.

DEVELOPMENT CONSIDERATIONS

As the Kiel Plan Commission and the Bay-Lake Regional Planning Commission staff prepared the General Plan Design map, consideration was not only given to the public input received for

desired future development, but also included looking into both the future public utility options along with specific criteria deemed reasonable to apply to the city over the next 20 years.

Environmental and Public Utility Considerations

The population projections found in Chapter 3 of this document are utilized to provide the city with an estimate of the number of acres that will be needed to accommodate future growth. The following environmental and public utility considerations should also be utilized to provide the city with an indication of which acreage of the municipality is best suited for development.

Undeveloped lands exist within the city and its planning area, which will make it unnecessary to propose development within the town's remaining "environmental corridors" that are delineated in the General Plan Design Map (Map 8.5). These areas need to be preserved and integrated into the overall development of the city for future generations to enjoy. The city's planning area has an abundance of these unique areas including wetlands, floodplains, woodlands and topographic features that can add significantly to the aesthetic appeal of the community while providing important ecological and environmental functions such as stormwater retention, groundwater filtration and flood control.

The city provides municipal sewer and water to its residents. The plan recommends that future developments continue to be serviced by sewer and water systems. An adequate network of arterial, collector, and local roads are already in place throughout the city, which could readily serve future traffic flows generated from any increased growth. An Official Map can identify future residential streets to assist the city and its residents in ensuring compatible street designs and layouts.

Planning Criteria

Planning criteria are developed in order to give a community a sense in which to base their land use recommendations. Criteria make the planning process defensible when presenting scenarios to the general public and when modifying or developing alternative sites for land use developments. The criteria used by the city, when developing the General Plan Design, was based upon values identified by the State (Smart Growth Criteria), and the city of Kiel Goals, Objectives and Policies - identified at the beginnings of each preceding chapter of this plan (See each chapter's strategies section).

The following *State of Wisconsin criteria* are based upon Smart Growth criteria (s. 66.1001) highly encouraged within community plans:

1. Promotion of the redevelopment of lands with existing infrastructure and public services and the maintenance and rehabilitation of existing residential, commercial and industrial structures.
2. Encouragement of neighborhood designs that support a range of transportation choices.
3. Protection of natural areas, including wetlands, wildlife habitats, lakes, woodlands, open spaces and groundwater resources.
4. Protection of economically productive areas, including farmland and forests.
5. Encouragement of land uses, densities and regulations that promote efficient development patterns and relatively low municipal, state governmental and utility costs.

6. Preservation of cultural, historic and archaeological sites.
7. Encouragement of coordination and cooperation among nearby units of government.
8. Building of community identity by enforcing design standards.
9. Providing an adequate supply of affordable housing for individuals of all income levels throughout each community.
10. Providing adequate infrastructure and public services and an adequate supply of developable land to meet existing and future market demand for residential, commercial and industrial uses.
11. Promotion of the expansion or stabilization of the current economic base and the creation of a range of employment opportunities at the state, regional and local levels.
12. Balancing individual property rights with community interests and goals.
13. Planning and development of land uses that create or preserve varied and unique urban and rural communities.
14. Providing an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit-dependent and disabled citizens.

DESIGN YEAR LAND USE PROJECTIONS

Map 8.5 was developed based on the information contained in previous chapters of this document including demographics, land use projections, physical characteristics, the goals, objectives, policies and programs, and city-wide survey results. Over a 24 month period, the Kiel Plan Commission met more than 20 times to review background data and growth options. From these meetings and presentation to the public, a 2020 General Plan Design was developed and approved.

Five Year Incremental Land Use Projections

Wisconsin statutes require comprehensive plans to include projections, in five-year increments, for future residential, commercial, industrial and agricultural land uses in the community over the twenty year planning period. The following text details this specific requirement for the city.

Residential Projections

The methodology used to project the city's future residential land use acreage includes: the projected housing needs presented in Chapter 3 of this document, a recommended dwelling unit per 1/3 acre ratio for each housing type, and a multiplication factor ranging from 1.25 to 2.0 to allow for market flexibility. Based on this methodology, the city would need to accommodate approximately 30 acres for future permanent residential development over the next five years, 35 acres between 2005 and 2010, 47 acres between 2010 and 2015, and 53 acres between 2015 and 2020, for a total of 165 acres needed by 2020. However, there are several other factors that impact development and must be taken into consideration when determining future acreage allocations. Several examples include:

- it is **not** the intent of the plan to see the entire area within a classification to be developed, rather the specified uses shall be allowed if consistent with the type, location, and density of the development;
- some of the lands identified may hinder development based on the nature of the area;
- within residential growth areas, lands must be allocated for future roads, parks, and recreation areas.

In most standard residential developments, these additional factors generally account for approximately 25 - 30 percent of the gross land area. Since much of the land within the city is developed, these factors will have more of an impact on future residential developments on the periphery of the city.

Commercial Projections

To calculate commercial land use projections, the BLRPC compared the current ratio of residential acreage to commercial land use acreage by parcel in the city (6:1) based on the 2001 land use inventory. Based on this methodology, the city would need to accommodate about five acres for future commercial development over the next five years, six acres between 2005 and 2010, eight acres between 2010 and 2015, and nine acres between 2015 to 2020 for a total of 28 commercial acres in the next twenty years. These allocations do not take into account the redevelopment of existing commercial properties found in the city. To properly site commercial, enough land should be designated in order to provide adequate parking, landscaping, and to ensure an adequate buffer strip exists from the street.

Industrial Projections

Industrial lands are projected in the same manner as the commercial lands. According to the 2001 land use inventory, the current ratio of residential acreage to industrial land use acreage is 8:1. Therefore, the city would need to accommodate about four acres for future industrial development over the next five years, four between 2005 and 2010, six acres between 2010 and 2015, and seven acres between 2015 to 2020 for approximately 21 acres over the next 20 years.

Agricultural Projections

The city of Kiel has a limited number of agricultural lands with the majority existing within the city's extraterritorial area. Expansion of these areas over the next 20 years is not likely. As a result the projections for agricultural lands was not calculated due to the minimal consumption of land the would occur. In addition, in order to preserve the prime farmland in the surrounding area, future land developments are encouraged to locate near existing development where adequate facilities and services are available.

Overall, the city has allocated additional acreage beyond the projections for residential, commercial and industrial development on the General Plan Design Map. It is accepted that the city may in the future need lands within the planning area beyond the projections identified. However, it is not the intent of the plan to see all areas within each classification to develop within the 20 year planning period unless needed. Therefore, the city has prioritized areas as to which lands should take precedence for new development.

DEVELOPMENT STANDARDS

General Plan Design Classifications

The following text discusses each of the major future land use classifications as depicted on the General Plan Design map. It should be noted that the specified classification does not designate individual areas within the classification for development, rather, it designates the entire area for that use to occur. Also, it is not the intent of the plan to see the entire area within a classification develop, rather the specified uses be allowed if consistent with the type, location, and density of the development in the event of a land conversion. The type and density of the land use is identified within the classifications.

The General Plan Design has 11 classes of future land use. The classifications generally correspond to the districts within the *Kiel Zoning Ordinance* to ease future implementation of the plan (however, minimums may vary in areas the city wishes to preserve). The classifications and their locations are discussed in the following:

Residential Infill	Park and Recreation
Mixed Residential	Utilities/Community Facilities
Fremont Street Commercial District	Transportation
Commercial	Agricultural/Rural
Industrial	Environmental Corridors
Governmental/Institutional	

Residential Infill

Existing and potential residential developments within the municipal limits of Kiel. Consisting of single family, two-family and multi family dwellings developed at higher densities.

Mixed Residential

A mix of residential development is planned for the areas on the city's periphery. Uses consist of primarily single family, combined with two-family and multi-family structures. This classification is recommended to accommodate conservation/cluster developments to preserve green space.

Fremont Street Commercial District

Identifies areas of existing and recommended commercial uses including neighborhood office and professional business in the Fremont Street Commercial district of Kiel. The historic nature of the downtown will be preserved through restoration, redevelopment and aesthetic improvements.

Commercial

Identifies areas of existing and recommended commercial uses ranging from neighborhood to highway commercial along Kiel's major transportation corridors. Commercial developments will

enhance the character and aesthetics of the community through landscaping, signage and other design standards. These areas also include existing and future home businesses.

Industrial

Areas identified by the city as existing, or recommended for industrial uses. The developments are recommended to be light industrial and should contain design standards and landscaping that maintains the aesthetics of the city.

Governmental/Institutional

Identifies governmental facilities, schools, churches, cemeteries and other similar governmental/institutional uses located within the city of Kiel planning area.

Park and Recreation

Existing or recommended parks, trails, and other recreational facilities within the city of Kiel and its extraterritorial planning area.

Utilities/Community Facilities

Identifies existing or planned utilities or community facilities (wastewater treatment facility, elevated storage tanks, etc.) within the city.

Agricultural/Rural

Identifies areas of agricultural uses, open lands, undeveloped lands, and single family residential developments at relatively low densities.

Environmental Corridors

Elements including; 100-year floodplains as defined by the Federal Emergency Management Agency (FEMA), WDNR wetlands, steep slopes of 12 percent or greater, and a 75-foot setback from all navigable waterways. Also includes other significant features or areas identified by the city.

RECOMMENDED DEVELOPMENT STRATEGY

The classifications detail the type, location and density of use. This portion of the plan will detail further recommendations on the land uses within the city. The following text discusses each of the major future land use classifications as depicted on the General Plan Design map. It should be noted that the specified classification does not designate individual areas within the classification for development, rather, it designates the entire area for that use to occur. Also, it is not the intent of the plan to see the entire area within a classification to develop, rather the specified uses be allowed if consistent with the type, location, and density of the development in the event of a land conversion.

This section of the chapter will first discuss the recommendations for lands within the current municipal limits, followed by the recommendations for areas on the city's periphery (within the city's 1.5 mile planning area).

Recommended Development Strategies - City Limits

The existing development patterns within the city of Kiel are proposed to continue throughout the 20-year planning period. However, recommendations for the undeveloped portions of the city as well as opportunities for rehabilitation and redevelopment are discussed within this section.

Residential

Residential Infill Classification

The purpose of this classification is to maintain the city's character with new development and through the rehabilitation and redevelopment of existing residential areas. This classification includes a mix of residential developments found within the city including single-family, two family and apartment dwellings.

Recommendations:

1. **Existing residential neighborhoods throughout the city of Kiel are proposed to remain intact.** Residential developments found throughout the city will continue throughout the 20 year planning period with the possibility of infill developments and rehabilitation or redevelopment of existing structures.
2. **New residential development types (single-family, multi-family, apartments) should conform with surrounding uses.** New development should correspond with the existing neighborhood residential types to avoid incompatibilities and to minimize potential negative impacts in existing neighborhoods. However duplexes and single-family homes could possibly share the same neighborhood. This is done through careful planning and design resulting in higher densities without any noticeable change in the neighborhood character. The city should monitor dramatic changes that would alter a neighborhoods identity (i.e. replacing single family structures with new apartment developments).
3. **New residential developments within the city will comply the Kiel Zoning Code.** Residential densities for new development in existing neighborhoods and infill within the city should follow the current standards: single family (R-1) and two-family (R-2) lots shall be a minimum of 9,000 square feet in area with a minimum lot width of 90 feet, Multi-family dwellings/apartment (R-3) lots shall be a minimum of 9,900 square feet with a minimum lot width of 90 feet.
4. **Infill development and TIF (Tax Incremental Finance) Districts shall be a top priority for future development.** It is recommended vacant lands and TIF districts within the city be substantially developed prior to the city recommending any major developments to occur within the city's 1.5 mile extraterritorial area. An area located within the southwestern portion of the city is the only exception to this.
5. **New housing developments should ideally enhance and improve the neighborhoods in which they are sited.** Future development with building criteria that is similar in scale and density to the surrounding land uses is preferred, especially on a variety of infill lots. Building standards are recommended for new multi-family/apartments in existing neighborhoods in order to make them aesthetically

appealing and which maintain the city's "small town" feel. Whenever possible two-family dwelling units should be located on vacant corner lots in existing neighborhoods for aesthetic purposes. In addition, corner lot duplexes should be situated so that the entrance of each unit faces a different street.

6. **The rehabilitation of existing residential structures is encouraged.** In older portions of the city, an emphasize should be placed on structures are in need of repair. According to 2000 Census, 32 percent of homes in the city are over 60 years old. The city should work with the local historical society and property owners for the preservation of historical structures or structures of architectural significance. The rehabilitation should be as similar to the original style and architecture, and should maintain the character of the surrounding neighborhood. Residents should be provided with educational materials and information on financial programs and on home repairs.
7. **High density uses should be located near community amenities.** Multi-family developments within the city should be located near public open spaces or park lands with trails and other pedestrian linkages integrated into all site designs.
8. **Ensure that there is adequate housing for all persons in the city.** Housing should be provided for people with low to moderate income, the elderly, and residents with special needs. A mix of new housing is recommended, including starter homes, making home ownership more attainable by lowering costs and expenses. The city should apply for grants and become involved in programs to address the city's housing needs.
9. **Elderly and assisted care housing facilities are recommended near the downtown area.** Downtown Kiel near Fremont Street has various public amenities nearby for special needs citizens and it is a pedestrian friendly area. Facilities available in the downtown area include shopping, open space and park areas along the Sheboygan River, religious establishments, etc.
10. **The manufactured home park is recommended to remain intact.** Throughout the planning period, the manufactured home park will continue, with infill development allowed. Expansion of lands adjacent to the park is preferred over developing additional manufactured park sites. Buffers should be considered around the park for aesthetic purposes.
11. **Future residential developments shall be sensitive to natural features within the city.** Environmentally sensitive lands in new areas of development should be preserved to the greatest extent possible to preserve the wildlife habitat and promote these lands for recreational uses within the city. In addition, the city should preserve the mature trees that line the city streets within Kiel to the greatest extent possible.

Commercial

Fremont Street Commercial District Classification

The Fremont Street Commercial District category identifies the downtown area for primarily commercial uses and professional services. This area shall remain the focal point of the city since much of its historic character is located in this general vicinity. The city will look to beautify the

area through renovations, rehabilitation, landscaping, etc. to make the downtown more viable. This Fremont Street classification shall allow for essential uses that will accommodate safe and efficient pedestrian traffic.

Recommendations:

1. **The existing downtown area of Fremont Street will remain intact throughout the planning period.** The downtown area, consisting of an area stretching from 1st Street to 8th Street, reflects much of the city's historic development. The area offers a mixture of uses including residential, multi-purpose commercial, with small retail, general purpose shopping, professional services and businesses, etc. During the planning period, similar businesses should be directed to the Fremont Street district, with the primary use being neighborhood commercial type establishments in order to maintain the core of the city. Parking requirements should acknowledge that the downtown area is an area of parking shared among establishments and pedestrian activity. The city should also explore possible on and off-street parking opportunities in the downtown area. The area will continue to be pedestrian friendly and easily accessible by surrounding neighborhoods.
2. **Whenever possible, existing vacant structures should be utilized for more viable uses.** Structures in the downtown area that are outdated should be considered for adaptive re-use, converting the structure to a more economically viable use. For example, old factories, warehouses or municipal structures could be converted into residential uses.
3. **Offer a diverse range of sites for different kinds of commercial development.** These sites could include areas for small scale infill buildings, expansion of existing structures, preserved and restored historic structures, and buildings replaced with new structures which conform with the surrounding area. The physical design of the Fremont Street area should be made compatible by managing the transitions between new and existing buildings so as not to detract from the character of downtown. Redevelopment in this area should maintain similar scale, design standards, signage, etc.
4. **Revitalize Downtown (Fremont Street).** The design and identity of downtown should be reinforced. According to the community survey and nominal group session (Appendix A), a high percentage of individuals indicated that the downtown area needs to be improved/enhanced. Possible enhancements should include refurbishing and preserving buildings or other landmarks of architectural or historical significance to their original appearance, establish design standards for storefronts, attractive landscaping, decorative lighting, signage, street furniture, etc. The signage in the downtown area should be based on a common theme which is recommended to be utilized throughout the remainder of the city. The area is also recommended to be enhanced to make walking safer by ensuring areas are clean and well-lit and offer pedestrian amenities, such as benches, that encourage foot traffic. Also, the community has expressed a need for an eating establishment along with a hotel/motel within the city. A fine dining restaurant or supper club would be a welcome addition which would attract people to the downtown area. The hotel/motel would give travelers a chance to stay and experience the beauty of Kiel.

5. **Form a Downtown Beautification group to work on a vision for the future of downtown.** The group would apply for funding, CDBG grants, Main Street Program, or other enhancement programs in order to improve the viability of the downtown area. The group along with the city would also assist on improving the vitality of the Fremont Street area through effective planning and marketing strategies.

Commercial Classification

The Commercial category identifies both highway and neighborhood commercial uses. Future highway commercial sites within the city shall allow for essential uses that will accommodate current and future residents, and transient demands. Locations are to be designed on a linear pattern, allowing ample room for parking and drive-thru services. This type of development is primarily associated with serving the needs of the highway traveler. Neighborhood commercial uses are generally located near residential neighborhoods and are at times clustered together for easy accessibility. Neighborhood commercial uses are intended to accommodate the needs of the current and future citizens similar to those uses found in the Fremont Street District.

Recommendations:

1. **Commercial uses along STH 32/57 and STH 67 are envisioned to continue as well as develop further.** It is expected that not only will a mix of future commercial locate along these significant highways in a linear pattern scattered along the route, but will likely cluster at the intersections allowing for compatible businesses to capitalize on one another, hoping to attract additional patrons. Clustered sites at intersections should be allowed, but should provide a common theme in signage, allow for shared parking and driveways, have ample landscaping to break-up the parking areas as well as to shield the view from the highway, and do not negatively impact neighboring residential properties or the “small town” atmosphere of the city. It is important for the city to closely involve itself in the design of future establishments through building scale and appearance, and to ensure that its major transportation corridors are not cluttered with distracting and potentially dangerous intersections. Each project will need to be scrutinized on a case by case basis.
2. **Enhance the city’s major entryways to better protect the city’s identity.** STH 32/57 and STH 67 are the major “doorways” to the city and should receive the most scrutiny when being developed. Signage, lighting, and landscaping need to reflect the city’s character, especially within these areas, for development to occur. Recommended commercial signage for these areas should provide a common theme based on the signage found downtown along Fremont Street. All lighting shall be properly shielded so light shining outward and upward does not inhibit the nighttime views. Landscaping shall be composed of natural vegetation, and earth mounds, and shall buffer commercial parking lots as well as be integrated within the parking area to break-up large expanses of asphalt/concrete. It is important for the city to control these three aspects of commercial use, for an area filled with blaring lights, competing signage, and vast areas of asphalt and concrete distract drivers, detract from the look of the city and create a negative vision for the remainder of the community.

3. **Ensure that commercial development is efficiently planned.** As pressure for development begins, city officials need to ensure that development occurs in a planned development pattern beginning within the city limits and working outward. If greater commercial development is experienced, the city shall consider expanding the permitted sites further outward into its 1.5 mile extraterritorial planning area.
4. **Highway commercial centers should be jointly developed.** It is highly beneficial to get these identified highway sites designed and developed concurrently, through an area development plan, which would detail driveway access, driveway locations and design, and future building sites and building appearance, as well as sign design. Potential buyers and developers are encouraged to do this as the best overall approach. The city should pursue this approach rather than allowing a piece by piece method which could lead to inconsistent building designs, etc.
5. **Existing neighborhood commercial within the city shall remain for the planning period.** Existing neighborhood businesses within the city shall remain. Any future neighborhood commercial developments should be easily accessible by from surrounding neighborhoods. All new developments adjacent to residential neighborhoods shall contain similar scale and style of the surrounding residential properties. These small-scale businesses may be similar to those found in the Fremont Street District but, are also allowed to be mixed with other business types found in the Commercial category.
6. **Home-based businesses are envisioned to remain.** With the access to the internet and the ability of faxes and computers, home-based businesses are a viable economic resource. This plan intends to have compatible businesses remain as home-based throughout the city - which are those described as being not discernable from the road or edge of property except with the use of a small sign. Those businesses that have discernable traffic, noise, odor, outside storage are to be considered a commercial use and required to be within a commercially designated area. This will assist in maintaining the character of the residential neighborhoods along with minimizing conflicts.
7. **Commercial signage will continue to be controlled.** In order to control sign's appearances, rather than allowing signs to control the city's appearance, the city will need to review and possibly strengthen its sign controls under general zoning. The city should recommend a city-wide theme for its signage. Several sign designs Billboards along with signs that are inflatable, glittering, flashing, rippling, sparkling, strings of lights, made with tinsel, "pom poms", pinwheels, pennants, banners, and streamers can have the potential to degrade the community's entryways ("doorways") and need to be limited in these areas. It is also recommended that changeable lettering, electronic messaging, and trademark colors be prohibited because they are often deemed disruptive.

Industrial

This plan will allow industrial uses which reflect the character of the city and do not negatively impact the surrounding land or its uses. It also supports all existing industrial uses which are

expected to remain throughout the 20 year planning period. The designated industrial areas should be managed in such a way that enhances the aesthetics of the city. This is especially important for areas on the city's edge and along the highways that serve as the entryways to the city.

Recommendations:

1. **Existing industrial sites within the city are expected to remain throughout the planning period.** Many of the existing industrial sites within the city are located near adequate traffic routes, rail service as well as public utilities. These industrial sites are expected to continue, with the potential for additional industrial developments to occur within these areas. Five significant sites have been classified on the General Plan Design as existing or future industrial sites. 1) east of 8th Street in the western portion of the city, 2) North of Park Avenue to the east and west of STH 67 in the northern portion of the city, 3) Areas to the east and west of Cemetery Road, just north of STH 32/57 in the southeastern portion of the city, 4) areas to the north and south of STH 32/57 in the southern portion of the city, and 5) an area at the south end of 6th Street in the southwestern portion of the city.
2. **Light industry is recommended to be the primary industrial development.** This plan envisions light industrial developments being able to grow and remain economically viable. In addition, Kiel's city-wide survey indicated the lack of support for heavy industry in order to maintain its "small town" character. Any new industrial developments as well as any future expansions shall be reviewed closely, to ensure they do not negatively impact or alter neighboring uses (especially residential neighborhoods) or the environment. New industrial development should fit with the scale of the city, provide diversity, is environmentally friendly, etc. The types of industrial uses allowed according to the City's zoning ordinance should be reviewed to determine if some uses do not comply with the city's vision for industrial development.
3. **Enhance the city's major entryways to better protect the city's identity.** The many state highways that enter the city of Kiel are the major "doorways" to the city, thus industrial sites should receive scrutiny when being developed since they are, or would be viewable while entering the city. As with the Commercial classification, industrial developments should follow design standards in order to maintain/enhance the aesthetics of the city. It is recommended that the city develop a set of standards for industries regarding landscaping, building design, lighting, parking, signage, etc.
4. **Encourage buffers to prevent incompatibilities with existing land uses.** Industrial developments near shall incorporate buffers to lessen conflicts and maintain the character of the adjacent neighborhoods.
5. **Redevelopment of existing industrial sites.** The city also has several existing environmentally contaminated sites. This plan is recommending the assessment and cleanup of these sites and utilizing them for more productive uses. The city should have these individual sites evaluated and devise a plan for the redevelopment of

contaminated areas. Since the nature of the contamination and clean up for these areas differs by site, the redevelopment plans for each specific site may also differ.

Governmental/Institutional

This plan identifies the Kiel City Hall, existing churches and cemeteries, school facilities, fire department, etc. as uses within this classification. These uses are expected to remain throughout the 20 year planning period. Future plans include:

1. The ambulance service moving into the fire department facility on Fremont Street. Also, the fire department and police station have plans to expand the current facilities on the existing sites.
2. The plan envisions a future location for a cemetery at the south end of Third St.
3. Recommend the city develop child care facilities and expand on the elderly care facility to better serve its residents. According to the city-wide survey, the majority of respondents felt there was a need for both facilities. Currently the city of Kiel does not contain a public child care facility and has a small elderly care facility.
4. Maintenance of the existing governmental/institutional facilities is recommended in order to keep their visual appearance. In the case of the Kiel City Hall, improvements will have to be made to extend the life of the structure and to maintain its historic appeal.

Park and Recreation

This plan promotes the existing recreational facilities, trails, parks and open spaces within the city of Kiel. These uses are expected to remain available to the residents of the city throughout the 20 year planning period and will ensure that existing and future neighborhoods within the city are served with park facilities, providing a variety of parks ranging from passive to active.

Recommendations

1. **Encourage the maintenance, expansion and updating of parks and recreational facilities.** The intent is to see a continuation and possible extension of park and recreation opportunities. This includes upgrading facilities to meet the needs of citizens with special needs along with providing opportunities for all ages of the population. Identify all parks within the city with improved signage that maintains the same design standard and has a common theme. Ensure that the recreational facilities are properly maintained and are compliant with the Americans with Disabilities Act (ADA) safety regulations.
2. **Promote the Solomon Trail (Kiel/New Holstein Trail).** This biking/hiking trail will continue with the possibility of the trail continuing from Kiel-south on the rail corridor in the future.
3. **Utilize defined environmental corridors as possible recreational sites.** A green way is recommended along the Sheboygan River in areas of new development. This stretch will follow the environmental corridors which are identified along the river within the

city and its planning area. This will help preserve beauty of the river, the wildlife habitat and could provide for possible linkages to trails.

4. **Cooperation in planning park and recreational facilities.** If future recreational development occurs, it is recommended that the city cooperate with developing agency(ies) and Manitowoc and Calumet counties to promote connectivity of recreational uses such as trails, especially linking residential areas to nearby parks, and other trail systems. These parks shall be accessible to all residents including those with disabilities.

Utilities/Community Facilities

This classification identifies the city's water towers, its wastewater treatment facility, the electric substation, as well as a new municipal well currently under development on the east side of the city in the Rockville subdivision. In addition, those existing service agreements and future service agreements impacting the quality of life within the city.

Recommendations:

1. **The City will continue to monitor services provided to city residents.** According to the city-wide survey, the majority of respondents indicated that the services provided to them by the city were adequate. However, the city will continue to monitor the capacities of the existing services to ensure that the services provided are as effective and efficient as reasonably possible.
 2. **Require annexation for new developments on the periphery of the city.** It is recommended that the city continue its policy of requiring annexation prior to extending municipal water and sewer to surrounding areas.
 3. **Explore options for future services.** The city should continually explore options for future recycling services and disposal of solid waste, which could be more cost effective and more efficient.
 4. **Communication and Utility structures will complement the community.** Future locations of utilities shall be sensitive to developed areas as well as the aesthetics of the city. High tension wires, transformer substations, communication towers, highway structures, etc. can have quite a negative effect on adjoining uses. Many are put in because of ease of the location or because they are central to the area but many do not consider the effects they have on adjoining property values, their views, etc.
- Transmission lines shall not unnecessarily cross over/through residential developments in the city or areas set aside for natural resource protection or recreation. Likewise, utility lines shall be encouraged to follow edges of natural features (that parallel roads) rather than roadways to maintain aesthetics of the city by minimizing their negative visual effects.
 - Types of substations shall be heavily screened with natural vegetation from neighboring properties and roadways for aesthetic purposes.

5. **The city will address the issue of telecommunication towers and antennas with its neighbors.** In the future, the city may experience a demand for the locating of telecommunication antennas and towers with the expanding use of "cell phones". However, problems can arise when new towers, often hundreds of feet high, are built near people's homes, next to historic buildings, or in rural scenic areas adjacent to the city. In many cases these towers often do not fit in with their surroundings and destroy scenic vistas. This is a nationwide occurrence and is a common sight in the state of Wisconsin.
6. **Work with other agencies to address the telecommunication towers and antennas.** To address the telecommunication tower issue, it is recommended that the city, along with UW-Extension, and other professional agencies develop a program to educate community officials and citizens on the existing rules and regulations associated with these structures. In addition, the program should be used to discuss issues such as alternate structures, joint use of new and existing towers, and visual and other potential adverse impacts of telecommunication towers. In addition, the city must be informed as to when and where possible telecommunication towers may be constructed in the city and its 1.5 mile extraterritorial planning area.
7. **Ensure the updating of the City of Kiel Zoning Ordinance.** The city will continue to update its Zoning Ordinance in order to best protect the residents quality of life, while providing the needed controls over incompatible uses.

Transportation

The transportation network in the city is more than adequate, given the network of city roads, various county highways, and several state highways (32/57, 67, and 149) that are found within the city. Map 8.4 also identifies the railroad corridor that leads into the western portion of the city from the northwest. The role that the major roadway corridors play in organizing the city should be highlighted using streetscape, landscape, and building placement guidelines that reinforce the particular character and function of the corridors. In addition, the plan envisions the city addressing the following:

Recommendations:

1. Adopt an "Official Map" to delineate future road extensions. The Official Map should be consulted when the City Plan Commission and City Council reviews development requests to ensure that all new developments conform to the Official Map. In addition all new subdivision's streets must conform to the Official Map by extending to identified intersections;
2. Continue to ensure that minimum transportation standards are met for new developments;
3. Ensure adequate parking with future commercial development. Parking lots are encouraged to have adequate landscaping complementary to the "small town" setting;
4. Encourage both pedestrian and vehicular movement throughout the Fremont Street area;

5. Maintain the sidewalks throughout the city to help ensure efficient and safe pedestrian movement;
6. Explore traffic calming techniques at trouble intersections including accessibility throughout the city;
7. Continue to monitor the conditions of streets and bridges and maintain them as needed;
8. It is also highly recommended that the Pavement Management Plan (PMP), prepared in conjunction with this plan by the Bay-Lake Regional Planning Commission be utilized by the city. The PMP provides a detailed inventory and description of all the city streets; provides a detailed surface condition survey of those streets; defines the goals and objectives of the city with respect to their street maintenance and repair; and ultimately establishes a long-term maintenance schedule that prioritizes street maintenance and repair needs.
9. The city shall also utilize the STH 32/57 corridor study and the Bicycle Facilities Plan developed in conjunction with this plan by Bay-Lake Regional Planning Commission for future highway issues and establishing future bicycle trails and facilities.

RECOMMENDED DEVELOPMENT STRATEGIES - EXTRATERRITORIAL AREA

With the land use recommendations for lands within the city limits discussed earlier, the Plan will also discuss the land use recommendations for the city's 1.5 mile extraterritorial planning area. The General Plan Design Map (Map 8.5) illustrates those areas adjacent to the city where development is most reasonable creating efficient development patterns and having accessibility to municipal services.

The majority of the lands in the periphery are planned to contain a mix of residential developments with commercial lands developing along the major transportation corridors that lead into the city. The remainder of the areas are encouraged to be preserved. The majority of the lands will remain in agricultural use until a more suitable use can be determined. In addition, areas such as the Kiel Wildlife Marsh to the south of the city along with the many lands sensitive to development (wetlands, floodplains, steep slope, etc.) shall be protected, with developments being steered away from them, retaining the natural beauty of the surrounding rural lands. New developments in the periphery need to be closely monitored to ensure that they comply with the plans of the surrounding area prior to being accepted or denied. The city shall work with the surrounding towns, Manitowoc County and Calumet County in order to accomplish the objective.

Residential Strategy

Mixed Residential

The majority of the areas within the city's 1.5 mile extraterritorial planning area are envisioned to be a mix of residential development. These areas were recognized by the city as areas that would create effective development patterns through infilling and that were easily accessible to municipal facilities and services. These areas are encouraged to include single-family residential development, two family residential development and apartments structures. However, it is not the intent of the plan to see an entire area within the residential classification to develop, rather the specified uses should be consistent with type, sizes and density. In, addition some of the lands in the classification would hinder development based on the nature of the area. Also lands must be allocated for future roads and other public amenities. As new residential development occurs within this classification, it is encouraged that areas sensitive to development, along with a percentage of open spaces be preserved.

Recommendations:

1. **Single family development will be the primary residential development** in these areas in addition to including multi-family and apartment dwellings. New residential developments within this classification should be broken down in a way that does not exceed the percentage of land of the existing residential developments found within the current city limits (single-family residential = 84%, two-family residential = 11%, apartments = 5%).
2. **Higher intensity uses are encouraged to be buffered from lower intensity uses.** Low density uses (single family dwellings) and high density uses (apartments) should not be intermixed, rather grouped according to type. However, these uses should be developed in the same general residential neighborhood. Locating apartments, and single-family homes near one another helps create a more diverse and multi-dimensional community.
3. **Detailed site plans approved by the city shall guide the development of the areas designated as Mixed Residential.** Site plans shall detail the land use mix, densities, street layouts, open spaces, etc. The specific details of each site plan will be at the discretion of the City, ensuring that the approval or denial is based on sound land use planning, is developed without negatively affecting the city's scenic beauty and provides for a range of transportation choices. All new developments shall conform to the city's Official Map illustrating future streets patterns. Once accepted by the city, each site plan shall be adopted as a component of Kiel's comprehensive plan.
4. **Prioritization of lands for new residential development.** Due to the large amount of land being designated for new residential development, it is **not** the intent of the plan to have all areas within the Mixed Residential classification to develop on the same time frame. For this reason, the areas designated for mixed residential have been prioritized by the city describing which areas should take precedence for new development. However, the city requested that existing vacant areas within the city are recommended to be developed substantially before any other top priority lands surrounding the city are allowed new developments.

- ***Top Priority Mixed Residential lands***

These are areas deemed most appropriate for future residential development. Several of these lands have been labeled top priority for the purpose of infilling undeveloped lands to assist in making city's development more contiguous. Also public utilities and services are easily accessible and located relatively nearby. These lands are designated on Maps 8.4 and 8.5, and consist of the following areas:

- A. Lands between the Rockville subdivision and STH 67, dissected by the Sheboygan River.
- B. The area north of the existing city limits, between Meggars Road and STH 67, immediately north of the Kiel High School facilities.
- C. Lands to the northwest of the existing city limits between Meggars Road and STH 57/32, west of the Kiel High School facilities.

- ***Lower Priority Mixed Residential lands***

These lands are set aside for development to initiate beyond the 20 year planning period, or after the majority of the top priority lands have been developed.

- A. Lands west of Steinthal Road and south of CTH XX, just northeast of the existing city limits.
- B. An area south of Mueller Road and west of STH 67, immediately south of the current city limits.
- C. Located within the existing city limits just south of STH 149 and west of 8th Street. This area in the southwestern portion of the city was determined by the City Plan Commission as an area that would not develop anytime in the near future. However if this area were to develop in the near future, the residential developments shall be buffered from the Kiel Marsh Wildlife Area to protect the wildlife habitat and recreational opportunities that exist in the marsh area.

5. **Densities in Mixed Residential lands will be left to the discretion of the city.** The current trend in many new areas of development has been larger lot sizes for residential development. However, the city of Kiel decided not to determine densities for future developments. Instead the city will evaluate future area site plans, with the decision on densities at the discretion of the City Plan Commission and City Council. The city zoning will need to reflect any changes that occur with new residential developments.
6. **Annex prior to providing services.** It is recommended that the city continue its policy of requiring annexation prior to extending municipal sewer and water to surrounding areas.
7. **The city will explore new development techniques which maintain a balance between green space and new development.** As new development occurs on the city's periphery, the city shall maintain much of the surrounding natural amenities that exist by utilizing various development techniques.

- Conservation/Cluster Subdivisions should allow primarily residential or commercial development while still protecting environmental features, allowing more open space and preserving prime farmland within the city's 1.5 mile planning area.
 - Promote attractive gateways; create more and better open space and pedestrian amenities; and link open and public spaces to each other with a comprehensive landscaping strategy.
8. **Ensure that new developments will have adequate public amenities.** New residential areas shall be developed in a way that is attractive, safe and well-served by essential municipal utilities and facilities. In addition, future neighborhoods that are recommended for higher density development, such as multi-family is recommended to be located near existing or planned park areas and other open space areas.

Commercial Strategy

These designated commercial areas would take advantage of the excellent exposure and access to the STH 57/32 corridor on the periphery of the existing city limits to the northwest and southeast. The primary uses will include highway commercial businesses and some neighborhood commercial. Future highway commercial sites shall allow for essential uses that will accommodate current and future city residents, and transient demands. Locations are to be designed on a linear pattern, allowing ample room for parking and drive-thru services. This type of development is primarily associated with serving the needs of the highway traveler. Future neighborhood commercial uses should generally be located near residential neighborhoods and are at times clustered together for easy accessibility.

Recommendations

1. **Enhance the city's major entryways to better protect the city's identity.** STH 32/57 is a major "doorway" to the city from the north and the south and should receive the most scrutiny when being developed. Signage, lighting, and landscaping need to reflect the city's character, especially within these areas, for development to occur. All lighting shall be properly shielded so light shining outward and upward does not inhibit the nighttime views. Landscaping shall be composed of natural vegetation, and earth mounds, and shall buffer commercial parking lots as well as be integrated within the parking area to break-up large expanses of asphalt/concrete.
2. **Highway commercial centers should be jointly developed.** It is highly beneficial to get these identified commercial sites designed and developed concurrently, through an area development plan, which would detail access, driveway locations and design, and future building sites and building appearance, as well as sign design. Potential buyers and developers are encouraged to do this as the best overall approach. The city should pursue this approach since a piece by piece method could lead to inconsistencies in the area.
3. **Access to these areas should be maintained to one or two areas and not individual lots along the highway.** For more efficient traffic flow and safety reasons, the city should also consider frontage roads within these designated commercial areas.

4. **The city will ensure that the proper services and utilities are provided to future commercial sites.** The city will continue to monitor the capacities of the existing services to ensure that the services provided are as effective and efficient as reasonably possible.
5. **Future commercial lands should be buffered from residential neighborhoods.** By utilizing existing natural features, stands of trees or added landscaping the buffers help limit incompatible land uses.
6. **Commercial signage will continue to be controlled.** In order to control sign's appearances, rather than allowing signs to control the community's appearance, the city will need to review and possibly strengthen its sign controls under general zoning. The city should recommend a city-wide theme for its signage. Several sign designs Billboards along with signs that are inflatable, glittering, flashing, rippling, sparkling, strings of lights, made with tinsel, "pom poms", pinwheels, pennants, banners, and streamers can have the potential to degrade the surrounding area and the community's entryways ("doorways") and need to be limited in these areas. It is also recommended that changeable lettering, electronic messaging, and trademark colors be prohibited because they are often deemed disruptive.
7. **Accommodations should exist for access to commercial areas near residential developments.** Pedestrian or bicycle facilities should be incorporated into the design of these commercial areas in order to connect them to residential neighborhoods. The facilities should provide safe, easy access to the commercial sites.
8. **Home-based businesses are envisioned to remain in the extraterritorial planning area.** With the access to the internet and the ability of faxes and computers, home-based businesses are a viable economic resource. This plan intends to have compatible businesses remain as home-based throughout the planning area - which are those described as being not discernable from the road or edge of property except with the use of a small sign. Those businesses that have discernable traffic, noise, odor, outside storage are to be considered a commercial use and required to be within a commercially designated area. This will assist in maintaining the rural character of the surrounding lands along with minimizing potential conflicts.

Industrial Strategy

The city indicated in this plan that the majority of industrial uses will be located within the existing city limits. However, future industrial uses should be designed in such a way that does not negatively impact the surrounding land uses within the city's 1.5 mile planning area. This is especially important for areas on the city's edge and along the highways that serve as the entryways to the city. In addition, as pressure for development begins, city officials need to ensure that development occurs in a planned development pattern beginning within the city limits and working outward. If greater industrial development is experienced, the city may consider expanding beyond its city limits into the 1.5 mile extraterritorial planning area.

Presently, there are several gravel pits within the southeastern portion of Kiel's planning area which will continue operations. Also, the city will work with Manitowoc and Calumet counties and surrounding towns on any future mining activities that may occur. However, the city of Kiel

will work with surrounding towns and counties to ensure all abandoned, present and future mining operations be reclaimed to a natural setting.

Existing industrial uses existing within the planning area are allowed to remain throughout the 20 year planning period. These areas generally consist of storage facilities and other small industrial uses that exist in the rural countryside.

Governmental/Institutional

The Governmental/Institutional areas within the city of Kiel extraterritorial planning area consist of primarily the Schleswig Town Hall churches and cemeteries. These land uses will continue to exist throughout the remainder of the 20 year planning period.

Park and Recreation

This classification identifies the existing and future recreational uses located within Kiel's 1.5 mile planning area.

Recommendations:

1. **Promote the Solomon Trail (Kiel/New Holstein Trail).** The Solomon Trail is a prominent recreational use in the city's planning area. The existing trail extends from the Kiel city limits, north to the city of New Holstein. The purpose of this plan is to promote this trail as an excellent recreational resource. The city of Kiel also made the recommendation that the trail possibly extend from the city to the south in the future.
2. **Future park envisioned by the city.** The area between the Sheboygan River and the Rockville subdivision. A large amount of this area is considered inadequate for development and is recommended by the city to become a recreational facility for existing and future neighborhoods. This park would also assist in maintaining the rivers aesthetic appeal and wildlife habitat, while providing for a variety of recreational activities. Several small parks and/or open spaces currently exist within the planning area and are recommended to remain throughout the planning period.
3. **Cooperation in planning park and recreational facilities.** If future recreational development occurs, it is recommended that the city cooperate with developing agency(ies) and Manitowoc and Calumet counties.
4. **Encourage the maintenance, expansion and updating of parks and recreational facilities.** The intent is to see a continuation and possible extension of park and recreation opportunities. This includes upgrading facilities to meet the needs of citizens with special needs along with providing opportunities for all ages of the population.

Utilities/Community Facilities

The city of Kiel planning area does not contain any major utilities/community facilities at this time. However, this plan suggest that the city address several issues including:

Recommendations:

1. **Require annexation for new developments on the periphery of the city.** It is recommended that the city continue its policy of requiring annexation prior to extending municipal water and sewer to surrounding areas. As the city expands, the municipal services will need to be evaluated in order to ensure adequacy and efficiency prior to future expansion.
2. **Continue to explore options for preservation of the Rockville Dam.** The Rockville Dam located northeast of the city on the Sheboygan River is within the city's 1.5 mile planning area. The dam plays an integral part of the various natural features that exist within the city of Kiel. This facility is recommended to remain throughout the planning period, and be restored in order to maintain the city's character that it provides.
3. **Address telecommunication towers and antennas.** This plan recommends that the city work together with the surrounding towns, UW-Extension, and other professional agencies to address the telecommunication tower issues. The groups should hold meetings to discuss issues such as alternate structures, joint use of new and existing towers, and visual and other potential adverse impacts of future telecommunication towers on the landscape. In addition, the city shall be informed as to when and where possible telecommunication towers may be constructed in its 1.5 mile extraterritorial planning area.

Transportation

This classification details areas related to the transportation network within the city's 1.5 mile extraterritorial area. Overall the transportation network in Kiel's planning area is sufficient given the network of local roads, county roads and several state highways (32/57, 67, and 149) that exist in the city's 1.5 mile planning area. However the city has voiced that the east-west network is inadequate and may need to be addressed. In addition, if any new subdivisions are proposed within the planning area, the City Plan Commission and City Council shall require Area Development Plans. This will allow the city to review and ensure that future roads conform to the city's Official Map. The General Plan Design Map (Map 8.4) also illustrates the existing railroad corridor that is located in the western portion of the planning area. This corridor is expected to remain throughout the 20 year planning period, however the railroad has not been operational for many years.

Agricultural/Rural

The majority Kiel's planning area will remain for agricultural purposes and/or developments rural in nature throughout the 20 year planning period until a time it can be converted to a higher best use. Other lands in the periphery include natural features, woodlands, recreational and scattered development. Densities in this classification will generally be low in order to preserve the rural nature of the planning area (i.e. one unit/35 acres of land).

Agricultural uses should be buffered from existing city development to limit incompatible land uses and limit nuisance complaints. For any proposed development within areas designated for agricultural use, the City Plan Commission and City Council will decide and a case by case basis which proposed subdivisions should be allowed. Through the use of the city's Extraterritorial

Planning Jurisdiction, the city could deny any proposed subdivision planned for the extraterritorial area that does not fit with city's future vision.

It is recommended that the city continue its policy of requiring annexation of these lands prior to the city extending municipal sewer and water to them.

Environmental Corridors

The preservation and protection of natural areas within the city of Kiel and its planning area will become increasingly important as population and development pressures increase. Many natural features are either unsuitable for development, enhance the appearance of the city, improve natural processes such as flood control, water retention or groundwater recharge. Wetlands, floodplains, the Sheboygan River and the Kiel Marsh Wildlife Area are all significant natural features within the city of Kiel and its planning area.

1. **This plan recommends that the natural features within the city and its 1.5 mile planning area remain in their natural state or be minimally modified for possible recreational uses.** Environmental corridors are represented by four elements including; (1) 100-year floodplains as defined by the Federal Emergency Management Agency (FEMA), (2) DNR wetlands, (3) steep slopes of 12 percent or greater, (4) and a water setback for buildings from all navigable waterways. These four elements provide serious limitations to development and the floodplains, wetlands and the building setback are generally regulated by either the federal, state, or county government. Together, these elements represent the areas of the city that are most sensitive to development and are intended to be preserved. The corridors are an overlay to the general plan and should be utilized as a reference showing these sensitive areas.
2. **Educate residents on conservation practices and include private and public agencies to assist the city in preservation techniques.** The city survey identified that it is important to the city residents to protect their abundant yet not endless resources within the city. Gaining education materials from preservation groups as well as agencies in charge of natural resource control will be very helpful in educating the public to the benefits of preservation. Information detailing the existence of agencies willing to compensate property owners for their development rights as well as information on sources of money to help purchase sensitive lands should be presented.
3. **Utilize natural areas to enhance new residential areas.** It is encouraged that the city preserve large natural areas and/or features within possible subdivisions to enhance/retain buffers between residential uses and transportation routes, sheltering the developments while also helping to hide the developments from views along the routes.
4. **Create a no-build conservancy within the environmental corridors along the Sheboygan River.** It is envisioned that the city enforce a conservation area that restricts development along the Sheboygan River. By using the General Plan Design's mapped Environmental Corridors, the city will establish conservancy area that will prohibit future developments from disrupting the city's remaining natural

areas. These areas along the river should be utilized for developing trails, walkways, open spaces, recreation, and wildlife habitat.

5. **Environmental Corridors related to the Rockville Dam.** The city should explore methods to maintain existing water levels and preserve surrounding natural areas that relate to the Rockville Dam.

URBAN DESIGN

Urban Design is a way to protect and promote quality of life and livability for the citizens of Kiel. This plan recommends the city of Kiel establish specific urban design methods in order to enhance its overall appearance while maintaining its “small town” character. The following are several recommendations.

The city can enhance its urban design through a variety of ways. The city may adopt design standards which reflect the character of a particular portion of the city (new development, historic downtown development, pedestrian oriented, and vehicular related areas). Some standards may include a connecting network of sidewalks, standards for building facades, trees lining the streets, etc. Other design issues include maintaining the scale and densities of the specific neighborhoods in the city, while providing for a variety of options that meet the diverse needs of all citizens. The city shall encourage Conservation by Design and Clustering on the city’s periphery maintaining a balance between green space and development.

Areas of the city with significant commercial and industrial activity shall enhance the properties through standards for landscaping, lighting, signage, facade and parking design, etc. This is especially important at the gateways into the city. The city should also look to preserve, rehabilitate and enhance the downtown area (Fremont Street) of the city. This includes rehabilitation and restoration of the historical structures in the downtown area, including the civic buildings, such as the City Hall. Decorative street lighting and street furniture are additional ways downtown Kiel could be enhanced.

The city can also continue to beautify and enhance its many public spaces. This could be done through requiring decorative signage that is uniform throughout the city and displaying decorative pieces of public art. The city shall continue to enhance its existing recreational areas and pursue additional recreational sites (i.e. new/extended trailways).

Possible design issues related to transportation may include additions or changes that occur to the existing city street network. City street patterns should be designed to provide interconnected patterns that promote effective circulation of car, bicycle, and foot traffic, which may help take some of the pressure off the major arterial streets in the city as it grows. Streetscapes in the transportation network should be appealing to transient traffic to enhance the city’s aesthetics.

IDENTIFIED SMART GROWTH AREAS

During the planning process, the City of Kiel Plan Commission developed a recommended land use plan (Map 8.5) which identifies how the city will develop and preserve its lands throughout the planning period. During this process the Plan Commission identified areas that are considered “smart growth areas”. According to s. 16.965, Wis. Stats., a “smart growth area” is “an area that will enable the development and redevelopment of lands within existing infrastructure and municipal, state and utility services, where practicable, or that will encourage

efficient development patterns that are both contiguous to existing development and at densities which have relatively low utility and municipal and state governmental costs.”

The “smart growth areas” for the city of Kiel are found in areas that encourage infill development as well as areas of new development that are immediately adjacent to the city within its 1.5 mile extraterritorial planning area. Identifying these areas within the city’s existing and proposed (as detailed within the City of Kiel Comprehensive Plan) developments allows for more orderly and efficient development patterns. Infill development is encouraged within existing neighborhoods promoting contiguous development, while cluster development on the periphery is encouraged to maintain a balance between development and open space. These areas identified also allow for adequate provision of services. In addition, these commercial, industrial, residential lands within and immediately surrounding the city will allow for a mixture of uses. The city will also enhance the identified residential, commercial and industrial properties located within the smart growth areas through restoration and redevelopment. The redevelopment/rehabilitation of residential properties, the downtown (Fremont Street) and lands considered primary entryways into the city (i.e. STHs 32/57, 67, and 149) will improve the aesthetics and maintain the city’s small town” character.

SUMMARY

Overall, the City of Kiel 20 Year Comprehensive Plan is the result of approximately 24 months of preparation and work done by the City of Kiel Plan Commission which generally works towards several issues including:

1. finding a balance between individual property rights (the right to develop) and community wide interests and goals (the right to preserve);
2. steering residential developments to areas designated within the city in order to minimize land use conflicts;
3. understanding the value of environmental corridors and wildlife habitats by steering development away from these areas;
4. promoting environmental corridors to serve as natural buffers which will help lessen conflicts;
5. maintaining the city’s “small town” character;
6. work with the surrounding towns to maintain the city’s 1.5 mile planning area in order to promote more efficient development patterns in the area;
7. cooperation with Manitowoc and Calumet counties and surrounding towns;
8. identify enough land to accommodate a variety of development over a 20 year planning period.

The effect that this comprehensive plan will have on the city is twofold: (1) first, it identifies a responsible program to improve the overall condition and delivery of public facilities and services; and (2) second, it provides a future development scheme which is not only cost-effective but is also compatible with the city’s existing development patterns and provides for the achievement of the city’s vision and goals outlined within the plan.

In simple terms, the city must not only plan for new development that may occur, but must also plan on the timing and location of the new development that is within the general framework of this plan design. To accomplish this, the Kiel City Plan Commission, City Council and all city residents must work together in an organized and cooperative manner on all future planning efforts within the community. This may require unique agreements and joint planning with the adjacent towns and Manitowoc and Calumet counties.

Table 8.2 contains a summary of the year 2020 land uses which have been designated on the General Plan Design map for the city of Kiel and its planning area along with their approximate acreage totals.

Table 8.2: 20 Year General Plan Design Acreage Calculations, City of Kiel.










Land Use Type	2020 Acres
Residential	1,070.2
Commercial	339.1
Industrial	354.5
Governmental/Institutional	91.6
Parks and Recreation	139.6
Communications/Utilities	20.2
Transportation	217.0
Natural Areas/Open Space	87.4
Totals	2,319.6

Source: Bay-Lake Regional Planning Commission, 2002.

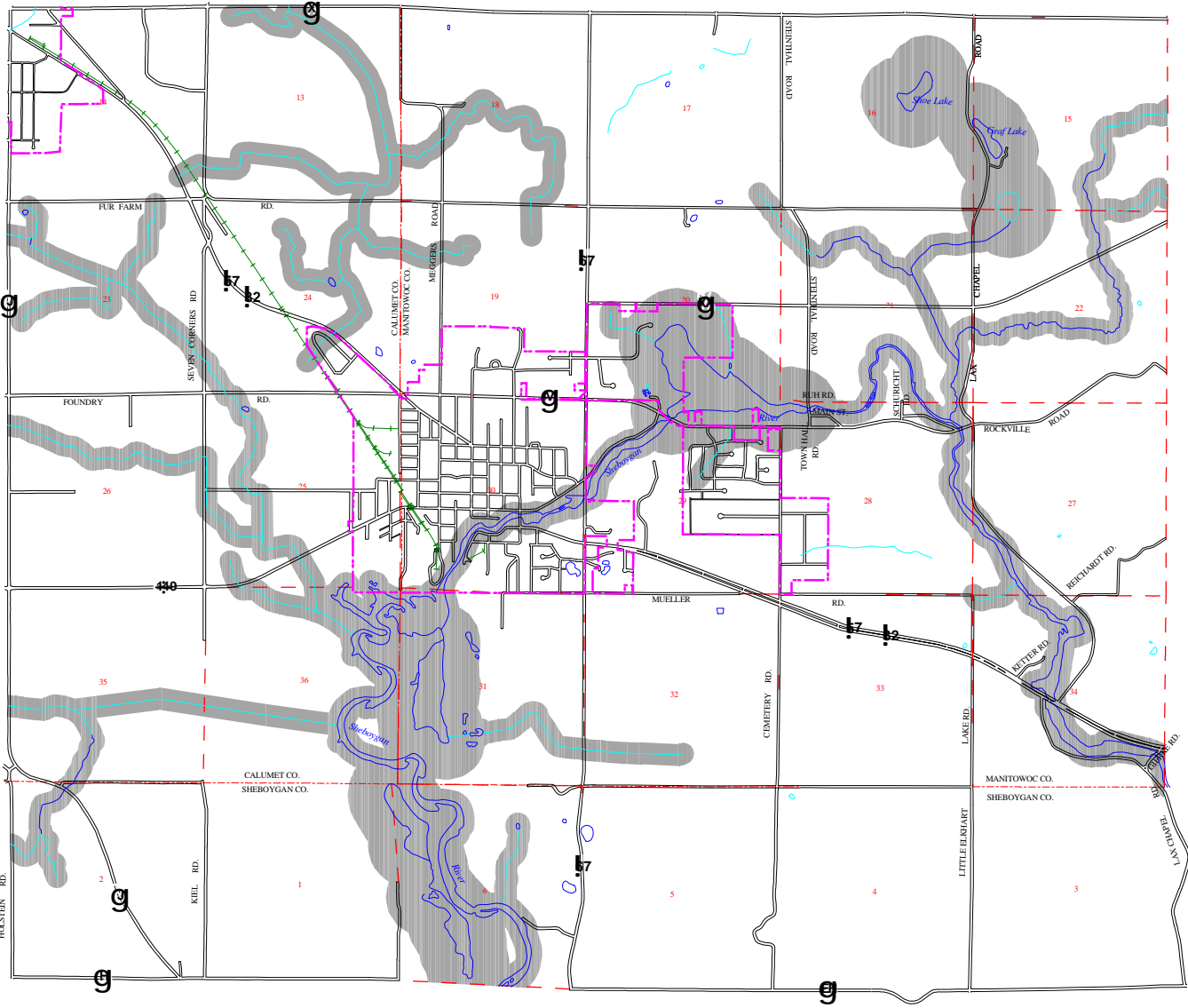
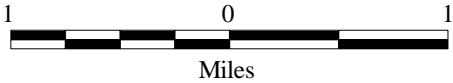
Shoreland Zone
City of Kiel Planning Area
Calumet, Manitowoc &
Sheboygan Counties

 Shoreland Zone

Map Features

-  State Highway
-  County Highway
-  City Limits
-  County Boundary
-  Local Road
-  Surface Water Features
-  Railroad Corridor
-  Section Line
-  Section Number

Source: Bay-Lake Regional
Planning Commission, 2002.

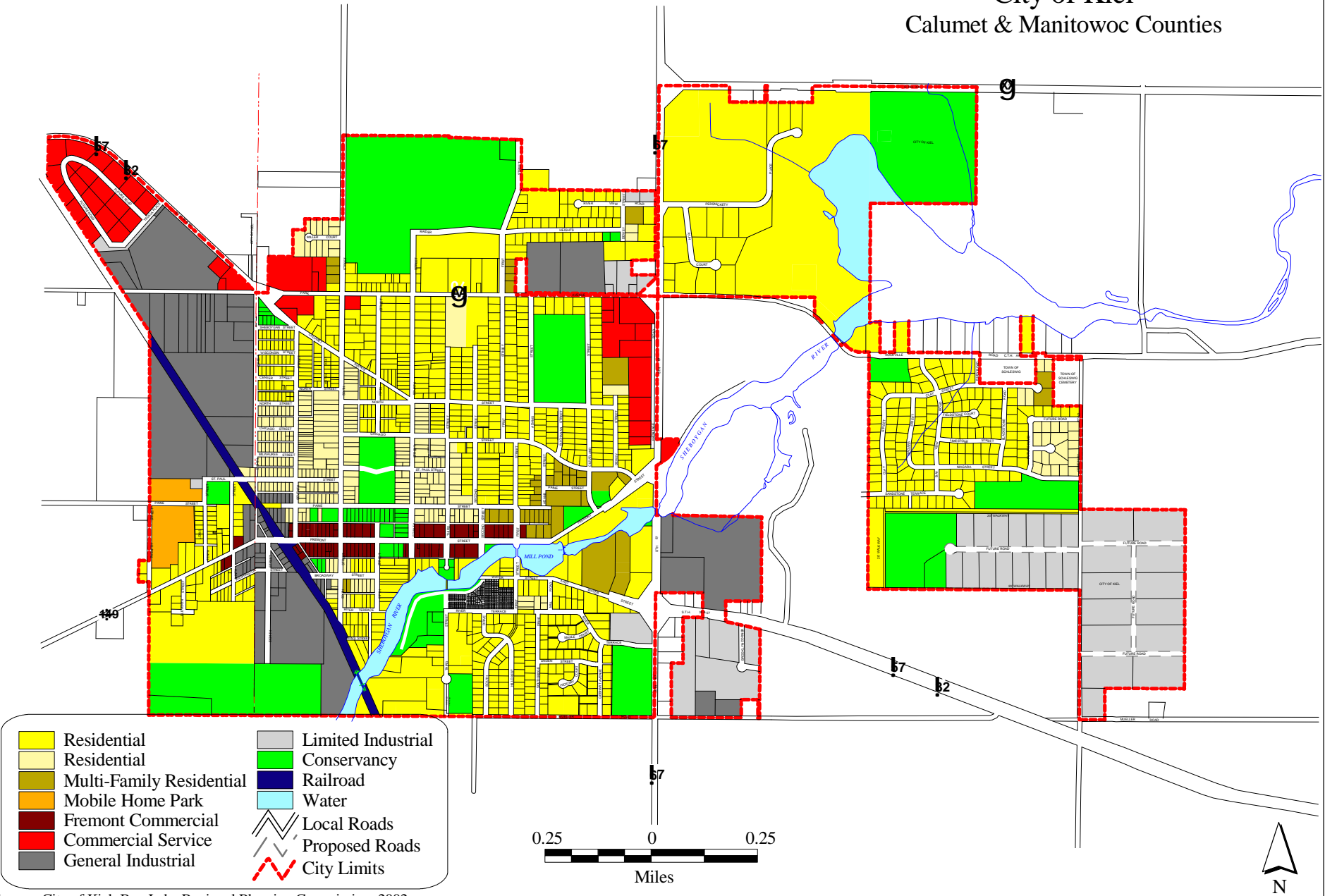


Zoning

City of Kiel

Calumet & Manitowoc Counties

8-41

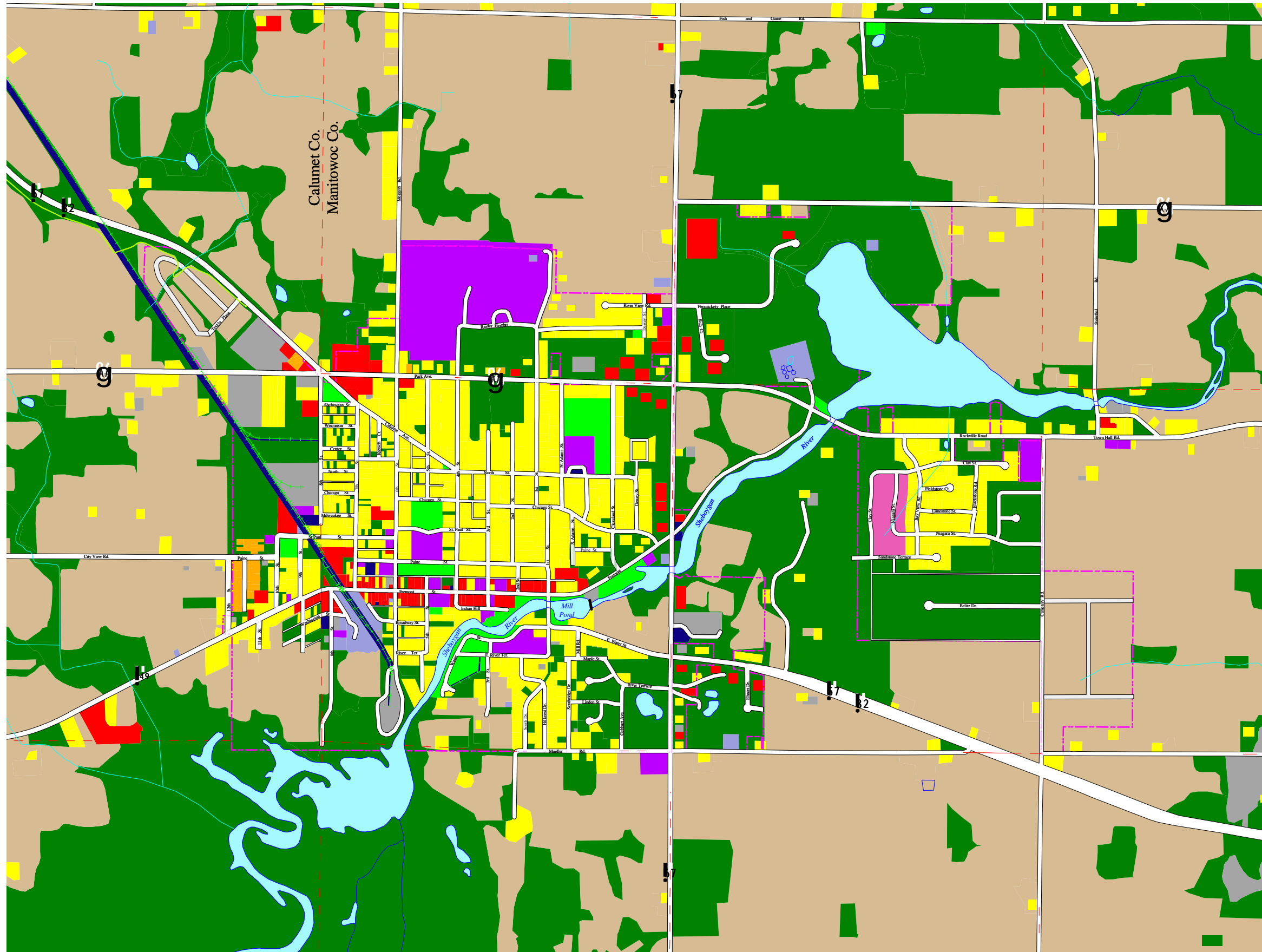


Source: City of Kiel; Bay-Lake Regional Planning Commission, 2002.

2001 Land Use

City of Kiel

Calumet & Manitowoc Counties



- Residential
- Mobile Homes
- Commercial
- Industrial
- Roads
- Transportation
- Communications/Utilities
- Governmental/Institutional
- Parks and Recreation
- Open Space/Fallow Fields
- Agricultural
- Water Features
- Woodlands, Wetlands, Undeveloped Natural Areas
- Land Under Development
- Solomon (Kiel/New Holstein) Trail

Map Features

- State Highway
- County Highway
- City Limits
- County Boundary
- Local Road
- Surface Water Features
- Railroad Corridor
- Section Line
- 36 Section Number

Source: Bay-Lake Regional
Planning Commission, 2002.



2001 Land Use

City of Kiel Planning Area

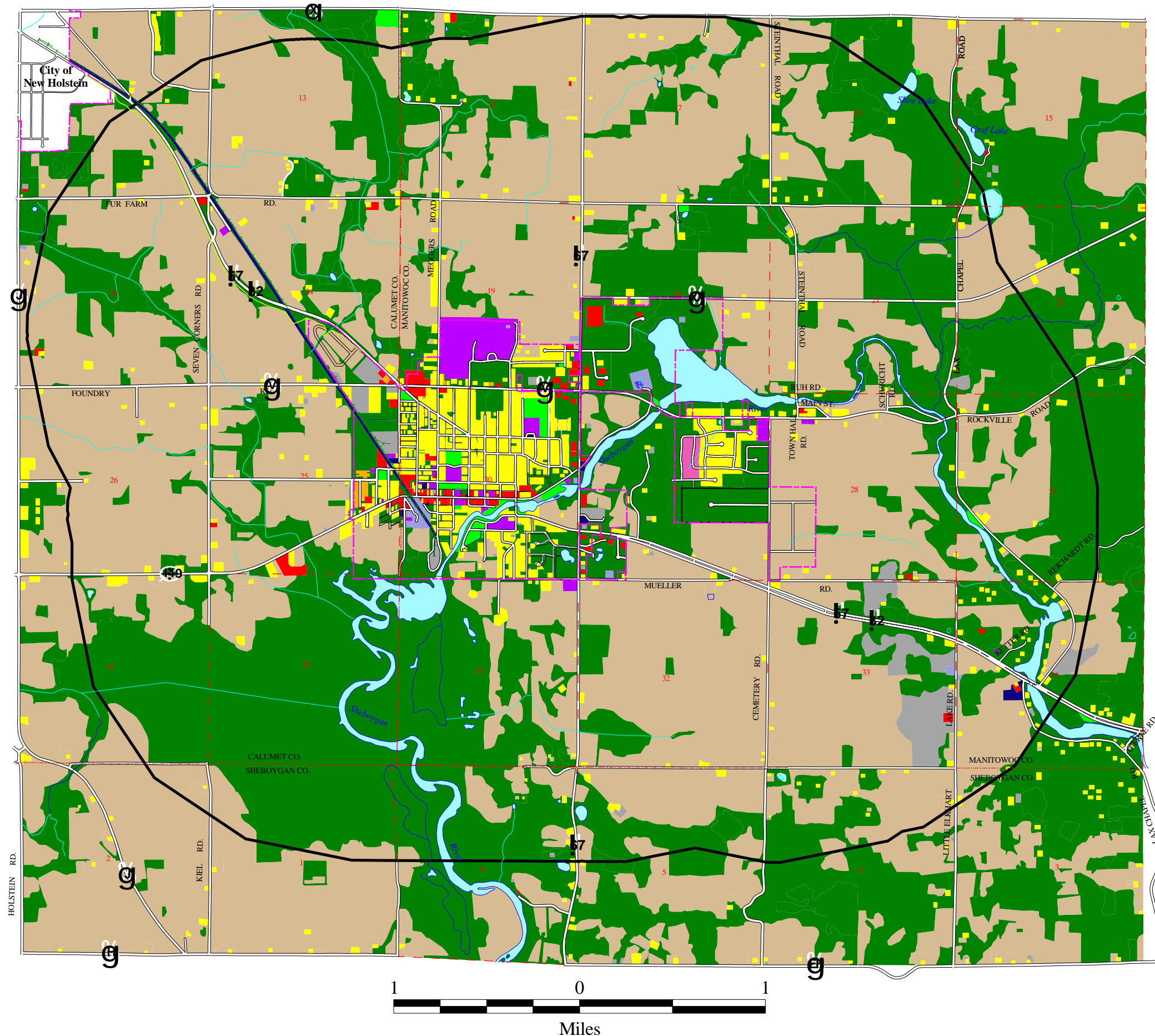
Calumet, Manitowoc & Sheboygan Counties

- Residential
- Mobile Homes
- Commercial
- Industrial
- Roads
- Transportation
- Communications/Utilities
- Governmental/Institutional
- Parks and Recreation
- Open Space/Fallow Fields
- Agricultural
- Water Features
- Woodlands, Wetlands, Undeveloped Natural Areas
- Land Under Development
- Solomon (Kiel /New Holstein) Trail
- 1.5 Mile Extraterritorial Boundary

Map Features

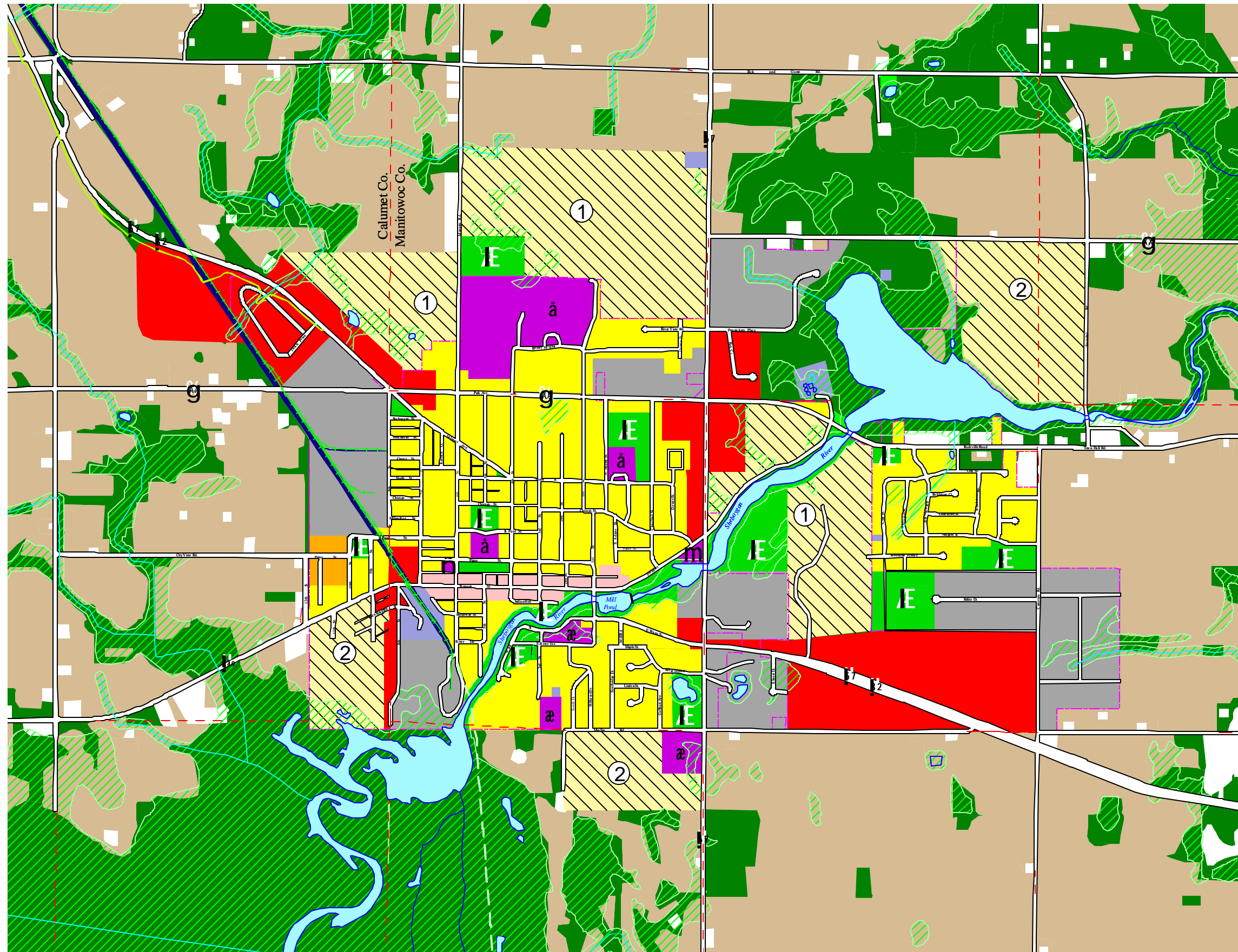
- S State Highway
- A County Highway
- City Limits
- County Boundary
- Local Road
- Surface Water Features
- Railroad Corridor
- Section Line
- 36 Section Number

Source: Bay-Lake Regional Planning Commission, 2002.



2022
General Plan Design
City of Kiel
Calumet & Manitowoc Counties

Map 8.5



2000 0 2000
Feet

- Residential Infill
- Mixed Residential
- Manufactured Homes
- Commercial
- Fremont Street Commercial District
- Industrial
- Utilities/Community Facilities
- Governmental/Institutional
- Park and Recreational
- Woodlands, Wetlands & Undeveloped Natural Areas
- Transportation
- Agricultural/Rural
- Environmental Corridor
- Rural Development

- S** Development Priority
- ñ** City Hall
- m** Fire Station
- â** School
- I** Park
- æ** Cemetery
- ~ Solomon (Kiel /New Holstein) Trail
- ~ Possible Trail Expansion

Map Features

- S** State Highway
- U** County Highway
- ~ City Limits
- ~ County Boundary
- ~ Local Road
- ~ Surface Water Features
- ~ Railroad Corridor
- ~ Section Line
- 36 Section Number

Source: Bay-Lake Regional
Planning Commission, 2002.



Chapter 9 - IMPLEMENTATION

INTRODUCTION

This chapter provides information on the comprehensive plan amendment/update process and its overall use by the city of Kiel. More detailed information on various statutory powers which the city may utilize to implement the 20 Year Comprehensive Plan are also included in this chapter (under specific powers, the plan has identified recommendations for the city to consider in order to best bring about the vision identified in Chapter 1 of this document). Appendix E details how the city responded to public comments received during the mandatory public review period.

The final element in a comprehensive planning program is the implementation of the approved 20 Year Comprehensive Plan. Implementation can take the form of:

1. Carrying out the recommendations in the plan for specific projects, for example, creating an ordinance, establishing a park, etc;
2. Using the plan as a guide to public and private decision-making on matters that relate to the development of the city, for example, a rezoning request or a capital expenditure, and;
3. Reviewing and amending the plan as changes in the demographics, economy or political climate changes.

Role of the Plan and City Plan Commission

Wisconsin Statute 66.1001 (3) stipulates that the land controls governing within the city and its extraterritorial area must be in conformance with the adopted city comprehensive plan. The City Plan Commission's primary responsibility is to implement the comprehensive plan and to ensure that all supporting city ordinances are consistent with the plan. When reviewing any petition or when amending any land controls within the city, the comprehensive plan shall be reviewed and a recommendation will be derived from its identified statements, goals, objectives, vision statement and General Plan Design. If a decision is one that needs to be made in which it is inconsistent with the comprehensive plan, then before the decision can take effect, the comprehensive plan must be amended to include this change in policy.

The Plan Commission will need to ensure that the comprehensive plan is updated at least once every 10 years per s 66.1001 (2)(i). Members of the Plan Commission need to become very familiar with the plan's maps and text as well as its stated vision statement, goals, policies, and programs. An annual review of the vision statement, goals objectives and policies is recommended to keep them current.

Role of the Elected Officials

The elected officials must make their decisions from the standpoint of overall community impact—tempered by site specific factors. In this task they must balance the recommendations made by plans and policies, the objectives of the applicant, the technical advice of staff, and the politically neutral recommendations of advisory boards, with their own judgement on the matter at hand.

The comprehensive plan will provide much of the factual information elected officials need in making a decision, therefore, even though the prime responsibility of implementing and updating the comprehensive plan falls on the shoulders of the City Plan Commission, elected officials

alike should become familiar with this important community plan and assert that community support and resources are maintained to ensure the comprehensive plan stays current and viable.

LAND USE PLANNING CONTROLS RECOMMENDATIONS

Zoning

The city of Kiel has a well established Zoning Ordinance. Several of the future land use recommendations will need re-zoning in order to take place. The city will need to continue to stand firm on minimum zoning standards regarding natural features and should veto any relaxing attempts of regulations. The plan recognizes that the preferred land use has a horizon year of 15 to 20 years in the future while zoning's authority is immediate upon adoption and posting. Therefore, instances of current use and planned use may conflict, yet it would not be prudent to immediately make a current use non-conforming to meet the preferred land use. Much of the timing of re-zoning will depend heavily on the market forces, the current political climate, and accuracy of the plan's assumptions.

- The comprehensive plan's preferred land uses need to be compared to the zoning map to determine compatibility and realignment within various districts. The City Plan Commission and City Council will need to judge when re-zoning will occur, for it is not the intent that the zoning ordinance become a direct reflection of the plan in all instances, for the plan looks out to the future while the ordinance deals with present day.
- The City Plan Commission should explore the future adoption of specific lighting, signage, and landscaping design standards in order to protect the character of the city, regarding commercial and industrial uses.
- Additional ordinances may be developed by the city in order to meet the "vision" listed in Chapter 1 of this plan.

Official Maps

Under §62.23(6), the city council/village board/town board (under village powers) "...may by ordinance or resolution adopt an official map showing the streets, highways, parkways, parks and playgrounds laid out, adopted and established by law." "The council/board may amend the map to establish the exterior lines of planned new streets, highways, parkways, parks, or playgrounds, or to widen, narrow, extend or close existing streets, highways, parkways, railroad rights-of-way, public transit facilities, waterways, parks or playgrounds. " Once an area is identified on an official map, no building permit may be issued for that site, unless the map is amended.

The official map serves several important functions:

1. It helps assure that when the city/village/town acquires lands for streets, etc., it will be at a lower vacant land price;
 2. It establishes future streets that subdividers must adhere to unless the map is amended; and,
 3. It makes potential buyers of land aware that land has been designated for public use.
- Given the amount of undeveloped lands designated for future development, it is recommended that the city review its official map for conformance to the comprehensive plan. Future residential areas need to have planned roads conducive to this type of activity/development as do areas for industry and commercial uses.

- A recommended technique for consistency with road alignments is to require area development plans prior to the approval of certified survey maps or subdivision plats. The city would maintain full discretion in the design and approval of any area development plans and if approved by the city, the plans would be incorporated as part of the official map for the specified area. Thus, developers would be required to ensure the city that their proposals will result in planned, orderly growth and development. In effect, roads and utilities would be planned to include areas beyond the land originally proposed to be platted. This would help the city avoid dead ends and looped streets that are characteristic of developments that have not considered adjacent lands owned by other parties.

Sign Regulations

Many communities are finding themselves having to regulate signage especially along transportation corridors, in order to preserve a sense of place and community character. As signs become more bold, have greater illumination placed on them, and have greater square footage, the sides of roadways and within community centers become places of growing confusion as each sign attempts to get your attention.

- The city may wish to adopt stricter sign controls in order to preserve its aesthetics and character. Special attention should be given to the minimum requirements within the commercial/industrial parcels. The number of signs permitted and the overall square footage of signs can best be managed if tied to the parcel's size and the commercial building's square footage.

Erosion and Storm Water Control Ordinances

Under § 62.234 of the Wisconsin Statutes, the city may enact a construction site erosion control and storm water management zoning ordinance. The purpose of such an ordinance is to protect water quality and to minimize the amount of sediment and other pollutants carried by runoff or discharged from construction sites to lakes, streams, and wetlands.

- The city of Kiel does not have an Erosion and Storm Water Control Ordinance, however in the long term, the city may wish to enforce such an ordinance.

Historic Preservation Ordinances

As communities progress, historic preservation ordinances can assist them in protecting their culture and history. The ordinances provide identification, protection, enhancement, perpetuation and use of buildings, structures, objects, sites and districts within a community that reflect special elements of a communities historical, architectural, archaeological, cultural, or aesthetic heritage. The ordinances can also set standards for alterations, design, restoration, demolition or new construction, ensuring that the features/neighborhoods maintain their historical significance. In addition, historic preservation can increase the economic benefits to a community and its residents, protect/increase property values, and enhance the overall visual character of a community.

- The city may wish to adopt a historical preservation ordinance identifying possible historical districts, structures, landmarks, etc. which are significant elements detailing the city's history. The ordinance should also describe ways to renovate and restore structures or sites that reflect Kiel's history. The city should work with the City of Kiel Historical Society to assist in identifying prominent historical sites.

Design Review Ordinances

Design review can accompany many different development aspects and will assist communities in achieving the identified look and character they expressed within their vision statements and goals. These ordinances however, need to be based upon well defined sets of criteria. Signage, lighting, exterior building material types and colors would be specifically identified within the ordinance.

- The city may wish, in the future, to explore the use of such ordinances to promote a specific look for an identified area within the city. Such areas may be along identified commercial corridors (i.e. STH 57/32 and STH 67), Fremont Street or within established industrial areas (which are identified in this plan).

Economic Development Committee

An Economic Development Committee (EDC) is a not-for-profit organization representing the interests of both the public and private sectors within a community. EDCs have been formed in a number of communities to handle the municipality's economic development activities and bridge the communication gap that oftentimes exists between the public and private sectors. Typical activities undertaken by an EDC include commercial and industrial development, business retention and recruitment, and tourism. EDCs consist of a Council of Directors and professional staff members. Council members typically depict a broad representation of the community's business, labor and educational sectors and are jointly appointed by the community and its Chamber of Commerce or other existing business associations. The Council sets policy for the EDC and is responsible for all actions undertaken.

- It is recommended that the commercial and industrial needs of the city be expressly conveyed to an Economic Development Committee in order to attract the desired commercial and industrial growth in the future.

Building/Housing Codes

The city should continue to enforce all applicable building/housing codes to ensure that properties are adequately maintained to preserve the character of the community and to protect property values. This is important especially for those older areas within the city and for properties that are not owner occupied.

- The city should routinely review the codes to determine their effectiveness within the city.

Floodplain Ordinance

The city has adopted controls (Chapter 20 of its Municipal Code) regulating the floodplains within the municipality in order to control adverse affects to public health, safety, convenience, general welfare, and the tax base. These regulations will limit development within identified areas. In some instances it will be important to re-adjust the floodplain boundaries in specific areas or within the entire city. To do so the city must follow three steps:

1. Hire an engineering firm to conduct hydrologic and hydraulic engineering models to calculate floodplain boundaries for the specified area.
2. Submit the re-calculated floodplain boundaries to the WDNR Bureau of Watershed Management and the FEMA for their review.
3. If approved, amend existing zoning maps to reflect the re-calculated floodplain boundaries.

Sanitary Codes

The city has adopted sanitary controls (Chapter 13 of the Municipal Code) regulating sewer usage and sewer charges. Groundwater protection is of great importance to the city and surrounding communities. Uncontrolled waste can have detrimental and wide ranging impacts on health and property values.

- The current code may need to be updated to ensure the greatest protections are afforded the city residents.

Subdivision Ordinances

The city's Subdivision and Platting regulations are regulated under Chapter 18 of the Municipal Code. Chapter 18 regulates the division of raw land into lots for the purpose of sale or building development. The subdivision ordinance is related to the zoning ordinance in that the zoning ordinance regulates the lot size, density, and use of the land, while the subdivision ordinance regulates the platting, or mapping, of newly created lots, streets, easements, and open areas. Most importantly, the subdivision ordinance helps implement the comprehensive plan. A basis of the approval of a subdivision is its conformance or consistency with a local comprehensive plan (as well as the City Official Map and Zoning Ordinance). The subdivision ordinance allows the city to encourage well designed neighborhoods and ensure the creation of adequate land records. In addition the subdivision ordinance allows the city to set construction standards and timelines for improvements such as streets, and parklands identified in the comprehensive plan and Official Map.

- The city may wish to amend the ordinance to allow a fee-in-lieu of park land dedication in order to establish a funding source to purchase larger areas of lands instead of creating small scattered parklands.
- The city may wish to amend the ordinance to allow the city to require Area Development Plans by the subdividers to adjacent surrounding undeveloped areas in order to update and amend the City's Official Map. Area Development Plans will ensure the split will be adequately served by future roads adjacent to it and will also guide future development and infrastructure around it in an orderly systematic approach.

COMPREHENSIVE PLAN INTERNAL CONSISTENCY

The comprehensive plan was developed sequentially in order to develop a plan with supportive goals, objectives, policies, and programs. Utilizing a community survey as a base, key issues were identified within each of the nine elements of the plan. Using these issues along with factual information regarding natural features, past population and housing data and infrastructure, a set of goals, objectives, policies and programs were developed in order to determine a desired vision which would be used throughout the planning period. The identified vision, goals and strategies expressed within this plan were utilized to determine the final General Plan Design as well as the specified implementation actions the city will undertake throughout the planning period. Any amendment to the plan shall be accompanied with an overall review of the nine elements along with their identified goals, objectives, policies and programs, in order to ensure that inconsistency within and between elements does not occur in the future.

IMPLEMENTATION MILESTONES

Implementation Timeline										
Category	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Planning Elements			Review Chapter's Goals Evaluate Against WDOA Estimates		Review Chapter's Goals Evaluate Against WDOA Estimates				Plan Commission Gather Needed Information to Update The Plan	Review & Update Plan
Governmental	Ongoing Education/training of Plan Commission				Review Chapters Projections & Compare to Latest Information			Contact Consultant to Update Plan		Adopt Plan By Ordinance
Ordinances	Initiate Ordinance Update	Complete Ordinance Update			Revise Ordinances appropriately					Review And Amend Ordinances
Intergovernmental	Establish Meetings to work with other Communities	Ongoing Evaluation of Shared Goals			Evaluate Shared Goals					Continue Intergovernmental Cooperation

PROCESS FOR UPDATING PLAN

As directed by s66.1001, any plan commission or other body of a local governmental unit authorized to prepare or amend a comprehensive plan may recommend the adoption or amendment of a comprehensive plan only by adopting a resolution by a majority vote of the entire commission (or governmental unit). This plan shall be amended/updated following s66.1001 (4)(b) and the adopted written community procedures for fostering public participation.

ACTION PLAN

The following is a summary of the key implementation activities needed to be followed to ensure initial progress is made after the adoption of the comprehensive plan. The Action Plan identifies the activity (**What**) and the appropriate body (**Who**) that would have the responsibility for carrying out the activity. The timeframe the activity needs to be initiated (**When**) is also identified and should begin within the first year of the plan's adoption or reviewed for continued applicability. The actions are as follows:

City of Kiel Action Plan

- 1. Activity** Attend workshops and training programs designed to educate Plan Commission members on duties, responsibilities, and techniques of the trade.

Who: City Plan Commission Members

When: Ongoing continuous effort

- 2. Activity** Discuss the city's intentions regarding future commercial and industrial development within the city and its planning area with Manitowoc and Calumet counties, the towns of Schleswig and New Holstein, local Chamber of Commerce, etc. to inform them that the city is looking to promote this type of growth and has set aside lands for it.

Who: Plan Commission and Chief Elected Officials
When: Fall 2002 and ongoing effort

3. Activity Administer the Comprehensive plan's recommendations, and monitor/update the statistical projections within the comprehensive plan.

Who: City Plan Commission
When: Ongoing/ Minor update of Plan's components every 3 to 5 Years,
Complete Update of Plan at 10 Years

4. Activity Communicate with the towns of Schleswig and New Holstein and other neighboring communities in an effort to identify shared goals, visions, and efforts to further the city's and area's developments.

Who: Chief Elected Officials, City Plan Commission
When: Fall 2002 initially, and ongoing effort

5. Activity Review the city's ordinances for conformance with the comprehensive plan as well as to update per recommendations of this plan.

Who: Chief Elected Officials, City Plan Commission
When: Fall 2002/Spring 2003

6. Activity Update the city's Official Map to include future roadways prior to allowing any new developments within planned areas of the city and the planning area.

Who: City Plan Commission, Chief Elected Officials
When: Spring 2003

7. Activity Explore Design options for future use within commercial and industrial areas of the city to further community character protections as recommended within this plan.

Who: City Plan Commission
When: Spring/Summer 2003

8. Activity Work towards and submit applications for grants for preserving/enhancing the Sheboygan Riverfront and other natural areas within the city.

Who: City Plan Commission, BLRPC, Manitowoc County
When: Spring 2003 and ongoing

- 9. Activity** Work on educating the City Plan Commission Members, Chief Elected Officials and residents on non-traditional methods of development such as Conservation Subdivisions, Cluster Districts, Traditional Neighborhoods - that will promote the plans of the city to allow creative development opportunities while protecting and enhancing the natural resources of the city.
- Who:** City Plan Commission Chair, Mayor
When: Summer/Fall 2003
- 10. Activity** Monitor public facility needs and improvements so as to be able to determine their associated impacts on the plan' proposed development goals regarding future land development.
- Who:** City Plan Commission with assistance from City Administrator and Staff
When: Ongoing continuous effort
- 11. Activity** Evaluate the city's use of the TIF and consider utilizing TIF in the future for needed/proposed improvements
- Who:** City Plan Commission, Chief Elected Officials
When: Fall 2003 and ongoing

APPENDIX A
2001 SURVEY AND NOMINAL GROUP RESULTS

2001
COMMUNITY WIDE
SURVEY

CITY OF KIEL CITIZEN INPUT SURVEY RESULTS

INTRODUCTION

During January 2001, the Kiel City Council initiated the necessary steps in order to develop a community “vision” for the city as part of the “Smart Growth” planning process. This vision will be used to guide future growth and recommend policies for handling future types of development. The City Council designated the City Plan Commission to update the city’s 1988 Comprehensive Plan. The city’s comprehensive plan will be an “official policy” statement on future growth issues within the city for the next 20 years and will advise the city when making land use decisions which may impact the city’s property owners. In January, the City Council signed a contract with Bay-Lake Regional Planning Commission to assist the city in developing this comprehensive plan under State Statute 66.1001.

The first step in developing a vision for the city was through a “nominal group” exercise. This exercise involved the City Plan Commission. The purpose of this exercise was to identify key issues to be addressed within a *City Wide Survey*. The draft city wide survey was developed by Bay-Lake Regional Planning Commission with guidance from the city and the nominal group exercise results. This draft survey was reviewed by the City Plan Commission in May 2001, and a revised version mailed on June 4, 2001. The survey had designated a return date of June 29, 2001, but all surveys received up until August 2, 2001 were compiled within this document’s findings.

The city wide survey was mailed to each household. In all, 1,467 surveys were mailed with 641 surveys being filled out and returned. The city had a very good response rate with 43.7 percent of the households sending back a survey.

COMMUNITY SURVEY EXECUTIVE SUMMARY

A. Household Information

- The age of respondents to the survey represents a cross-section of the population of the city. 19.6 percent of the respondents were under 36, while just under 37 percent (36.7 percent) were age 61 or older. The majority of the respondents were between 36 and 60 (43.7 percent) indicating that many of the people who responded to the survey are of working age.
- Of all the respondents to this survey, the majority of them were women at 56.5 percent (343 responses). 264 males responded to the survey (43.5 percent). The 2000 Census indicates that there is a split of 52 percent to 48 percent within the city, females to males respectively. Thus, the survey had slightly more females responding, yet the numbers indicate that the survey was fairly evenly answered.
- Of the respondents to this survey, the majority of them live in a single family residential structure (79.7 percent). Just over 16 percent of the respondents live in a duplex, or an apartment building. There were also 20 responses to people living in condos.
- Those that responded to the survey indicated that over 87 percent owned the home they were living in, while over 12 percent rented their current place of residence within the city.

- Respondents indicated that the majority of their residences were built after 1990 (25.1 percent), from 1960-1978 (21.5 percent), and before 1940 (21.3 percent). This indicates a large increase in new housing within last ten years, however over 25 percent of the homes were built prior to 1950 indicating many older structures exist that could be substandard and may need attention (rehab, etc.).
- 201 of the respondents (57.3 percent) indicated that they worked within the city of Kiel. Another 13 percent stated they work in New Holstein, and over 12 percent of the respondents work in the city of Sheboygan. A large number of the respondents (163) also indicated that they are retired.
- Approximately 41 percent of respondents indicated that their primary source of income was from working within the manufacturing industry. Social security (21.5 percent) and the services sector (15.3 percent) were the next high responses.

B. Residential Development

- Overwhelmingly, respondents indicated (58.7 percent) that additional housing was not needed in the downtown area. Over 30 percent were unsure about adding more housing downtown, while 11 percent of the respondents felt additional housing is needed downtown.
- Most respondents indicated (32.7 percent) that elderly housing is needed within the city of Kiel. Other high responses to types of additional housing included single-family homes under \$100,000 (28.3 percent) and single-family homes \$100,000 or more (21.6 percent). Also, 23.8 percent of respondents felt that no more additional housing is needed in the city.
- The most popular minimum lot size response, regarding residential developments within new subdivisions, were 51.4 percent for 20,000 sq. ft.; 32.7 percent indicated a minimum of 10,000 sq. ft.; and 15.9 percent indicated a minimum of one acre.

C. Commercial Development

- In review of respondents approving or disapproving types of business development for the city of Kiel, highway commercial (59 percent), major commercial retail chains (65.7 percent), small neighborhood business (74.2 percent), major food chains (65.4 percent), supper clubs (80.8 percent), professional services (57.9 percent), light industries (81.7 percent) and hotel/motel (82.1 percent) were marked “approve” by an overwhelming majority of the respondents. Only heavy industry received a “disapprove” from respondents (44.7 percent).
- Many respondents of the survey agreed (40.6) that there is a need for downtown improvement/enhancement programs. However, 40.3 percent of respondents were unsure, and 19.1 percent of those returning surveys do not feel there is a need for downtown improvement/enhancement programs.
- Regarding supporting a city “theme or identity”, respondents of this survey were split. 34.9 percent of respondents would not support creating a “theme or identity”, 32.9 percent stated they would support a “theme or identity,” and 32.1 percent of those who responded were unsure if they would support a “theme or identity”. This issue will need to be explored in the future due to the even split on the response.

- In reviewing some responses to characteristics or assets which reflect the city of Kiel, it is determined that many individuals have similar responses. Some frequent responses include, clean, friendly, neatness, parks, river (Sheboygan River), small town, etc. For a complete listing of the responses to this question see pages 10-18 in the survey response packet.
- The majority of the respondents of this survey indicated refurbishing of old buildings (57.5 percent) is needed in the downtown area to improve its overall appearance. Storefront design (26.1 percent), demolition of old buildings (22.2 percent), benches and other street furniture (20.6 percent), and landscaping (19.5 percent) were also high responses for improving downtown appearance. In addition, 25 percent of respondents feel the appearance of downtown is okay, and nothing should be done.

D. Community Facilities

- In a review of respondents ranking of city services and facilities, the majority of the results ranged from “fair” to “good”. Cable service, sidewalk conditions, and street pavement conditions, received a “fair” rating from the majority of respondents . The rating of health facilities was split, with 39.5 percent of respondents rating the facilities “good” and “fair”. Internet access, churches, elderly services, electric service, natural gas service, fire protection, garbage pickup, curbside recyclables, recycle center, city hall, library, telephone service, police protection, school facilities, sewer service, snow removal, street lighting, water services, emergency medical services, parks and park and recreation programs all received “Good” rankings from the majority of respondents. Nothing received a majority of a “poor” rating by the survey respondents.
- The need for a fitness center (YMCA) in the city was somewhat split. 37.7 percent of respondents feel there is a need for a fitness facility, whereas 31.3 percent are not sure, and 31 percent do not feel there is a need for a fitness center.
- When asked if there is a need for a nursing home facility, the majority of the respondents (43 percent) said yes, and 23 percent said there is not a need for a nursing home facility.
- More than half of the respondents (53 percent) feel that there is a need for a child care facility, while 14.9 percent feel there isn’t a need. 32.2 percent of the respondents were not sure.

E. Transportation

- Reviewing the responses about streets or intersections that are felt to be hazardous, many responses were similar. Streets intersecting Fremont Street, Park Street, and Hwy 67 were popular responses. For a complete listing of responses, see pages 27-36 in the survey response packet.
- An overwhelming majority (62.3 percent) of respondents feel that City Hall has parking problems. In addition, many feel that facilities such as the library (47.6 percent) and community center (35.4 percent) also have parking problems associated with them.
- When asked about pedestrian or bicycle safety problems associated with various areas in the city, 54.5 percent of respondents stated there are problems near the retail/commercial establishments. In addition, 49.5 percent also stated that the schools have safety problems, and 29.7 percent of respondents feel various city services have safety problems associated with pedestrians or bicyclists.

F. Community Development

- More than half the respondents (56.8 percent) feel that the overall quality of life in the city of Kiel is good, while 31.6 percent consider the quality of life excellent. Ten percent of respondents also feel that the overall quality of life is average.
- Overwhelmingly, respondents indicated (86.4 percent) that woodlands, wetlands, green spaces and natural areas in an around the city should be preserved/restored.
- A majority of the respondents (64.2 percent) of this survey indicated that they would support the development/upgrade of recreational facilities in Kiel.
- When asked, “what funding sources would you support if more money was needed to maintain or expand City services?”, an overwhelming number (91.8 percent) of the respondents stated “apply for grants under state and federal programs”. “Implementation of user fees” had a response of 35.4 percent. “Raising local taxes” was chosen by 12.2 percent of the respondents.

CITY OF KIEL

COMMUNITY SURVEY

The City of Kiel is in the process of updating its 1988 Comprehensive Plan. The update will address the existing and future land uses to help guide future growth. **Public input is a very important element of this process and it is important for us to learn your opinions.**

Therefore, to better update the plan, the City's Plan Commission, in cooperation with the Bay-Lake Regional Planning Commission, developed this survey to obtain your opinions and concerns to help guide the Plan Commission in developing an advisory plan and regulations for future land use within the City of Kiel. The survey has been designed so that it can be completed in a few minutes. It is important that each survey be completed and returned. Your honest opinions, whether favorable or unfavorable, are necessary to be sure that the City can respond effectively. Please complete the enclosed survey and return it by Friday, June 15, in the self-addressed envelope provided. You can be absolutely sure that all of the information you provide is kept strictly confidential. A list of the individuals from the Kiel Plan Commission who helped develop this survey can be found on page 4.

Kiel is your community and your views are important!

A. HOUSEHOLD INFORMATION:

1. Which age category do you fall into:
☐ UNDER 18₍₁₎ ☐ 18-25₍₂₎ ☐ 26-35₍₃₎ ☐ 36-45₍₄₎ ☐ 46-60₍₅₎
☐ 61-75₍₆₎ ☐ OVER 75₍₇₎
2. Person filling out this form? ☐ Male₍₁₎ ☐ Female₍₂₎
3. What type of housing structure do you live in? (Check One)
☐ SINGLE FAMILY RESIDENTIAL₍₁₎ ☐ MANUFACTURED HOME₍₄₎
☐ DUPLEX RESIDENTIAL₍₂₎ ☐ OTHER: _____
☐ APARTMENT BUILDING₍₃₎ _____
4. Do you own or rent your residence? (Check One)
☐ OWN₍₁₎ ☐ RENT₍₂₎
5. Approximately when was your residence built? (Check One)
☐ AFTER 1990₍₁₎ ☐ 1949 - 1940₍₅₎
☐ 1990 - 1979₍₂₎ ☐ BEFORE 1940₍₆₎
☐ 1978 - 1960₍₃₎ ☐ DO NOT KNOW₍₇₎
☐ 1959 - 1950₍₄₎
6. Where do you work? (Check One)
☐ CITY OF KIEL₍₀₎ ☐ CITY OF APPLETON₍₆₎
☐ CITY OF NEW HOLSTEIN₍₁₎ ☐ CITY OF FOND DU LAC₍₇₎
☐ CITY OF CHILTON₍₂₎ ☐ CITY OF GREEN BAY₍₈₎
☐ CITY OF SHEBOYGAN₍₃₎ ☐ CITY OF MILWAUKEE₍₉₎
☐ CITY OF MANITOWOC₍₄₎ ☐ OTHER: _____
☐ CITY OF PLYMOUTH₍₅₎ _____
7. Where does your Primary source of income come from? (Check One)
☐ MANUFACTURING/INDUSTRY₍₀₎ ☐ WHOLESALE/RETAIL₍₆₎
☐ SERVICES₍₁₎ ☐ GOVERNMENT EMPLOYMENT₍₇₎
☐ CONSTRUCTION₍₂₎ ☐ TRANSPORTATION & UTILITIES₍₈₎
☐ AGRICULTURAL₍₃₎ ☐ DIVIDENDS, INTEREST, & RENT₍₉₎
☐ PENSION₍₄₎ ☐ OTHER: _____
☐ SOCIAL SECURITY₍₅₎

B. RESIDENTIAL DEVELOPMENT:

1. Is additional housing needed in the downtown area?
☐ YES₍₁₎ ☐ NO₍₂₎ ☐ DON'T KNOW₍₃₎
2. What types of additional housing do you feel are needed within the City? (Check all that apply)

<input type="checkbox"/> NO MORE IS NEEDED	<input type="checkbox"/> CONDOMINIUMS
<input type="checkbox"/> MANUFACTURED HOMES(MOBILE HOMES)	<input type="checkbox"/> APARTMENTS
<input type="checkbox"/> SINGLE-FAMILY HOMES UNDER \$100,000	<input type="checkbox"/> ELDERLY HOUSING
<input type="checkbox"/> SINGLE-FAMILY HOMES \$100,000 OR MORE	<input type="checkbox"/> LOW INCOME HOUSING
<input type="checkbox"/> DUPLEXES	<input type="checkbox"/> OTHER: _____
3. Lot sizes in new subdivisions should be at least? (Check One)

<input type="checkbox"/> 10,000 SQ FT ₍₁₎ (ie. 90x115)	<input type="checkbox"/> 20,000 SQ FT ₍₂₎ (ie. 100x200)	<input type="checkbox"/> 1 ACRE ₍₃₎ (ie. 43,560 sq ft)
<input type="checkbox"/> OTHER: _____		

C. COMMERCIAL DEVELOPMENT:

1. Indicate whether you approve or disapprove of the following kinds of business development for the City:

	<u>APPROVE</u> (1)	<u>DISAPPROVE</u> (2)	<u>NOT SURE</u> (3)
HIGHWAY COMMERCIAL (GAS STATIONS, FAST FOOD)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MAJOR COMMERCIAL RETAIL CHAINS (WALMART, KMART)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SMALL NEIGHBORHOOD BUSINESS (HARDWARE, BOAT REPAIR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MAJOR FOOD CHAINS (PIGGLY WIGGLY, PICK'N SAVE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SUPPER CLUBS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROFESSIONAL SERVICES (ACCOUNTANTS, INSURANCE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEAVY INDUSTRY (METAL REFINERY)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LIGHT INDUSTRY (COMPUTER PACKAGING COMPANY)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOTEL/MOTEL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Do you feel there is a need for downtown improvement/enhancement programs?
☐ YES₍₁₎ ☐ NO₍₂₎ ☐ MAYBE₍₃₎
3. To improve upon the appearance of the city and to create a sense of place for citizens and visitors, would you support a city "theme or identity" (a common look in signs, store fronts, lighting, etc. - all controlled by lighting, signage and landscaping ordinances)?
☐ YES₍₁₎ ☐ NO₍₂₎ ☐ MAYBE₍₃₎
4. What characteristic(s) or asset(s) do you feel most reflects the identity of the city of Kiel?

5. What is needed in the downtown area to improve its overall appearance? (Check all that apply)

<input type="checkbox"/> NOTHING, OKAY AS IS	<input type="checkbox"/> STOREFRONT DESIGN
<input type="checkbox"/> LANDSCAPING	<input type="checkbox"/> REFURBISH OLD BUILDINGS
<input type="checkbox"/> MORE PARKING	<input type="checkbox"/> SIGN DESIGN
<input type="checkbox"/> BENCHES AND OTHER STREET FURNITURE	<input type="checkbox"/> DEMOLISH OLD BUILDINGS
<input type="checkbox"/> STREET LIGHTING	<input type="checkbox"/> OTHER: _____

D. COMMUNITY FACILITIES:

1. Overall, how would you rate the following community services and facilities:

	<u>GOOD</u> (1)	<u>FAIR</u> (2)	<u>POOR</u> (3)	<u>NO</u> <u>OPINION</u> (4)
CABLE SERVICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INTERNET ACCESS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CHURCHES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELDERLY SERVICES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRIC SERVICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NATURAL GAS SERVICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FIRE PROTECTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GARBAGE PICKUP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CURBSIDE RECYCLABLES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RECYCLE CENTER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CITY HALL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEALTH FACILITIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LIBRARY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TELEPHONE SERVICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POLICE PROTECTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SCHOOL FACILITIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SEWER SERVICE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SIDEWALK CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SNOW REMOVAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STREET LIGHTING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STREET PAVEMENT CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WATER SERVICES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY MEDICAL SERVICES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PARKS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PARK AND RECREATION PROGRAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Do you feel there is a need for a fitness center (YMCA) in the City?

☐ YES₍₁₎ ☐ NO₍₂₎ ☐ NOT SURE₍₃₎

3. Do you feel there is a need for a nursing home facility?

☐ YES₍₁₎ ☐ NO₍₂₎ ☐ NOT SURE₍₃₎

4. Do you feel there is need for a child care facility?

☐ YES₍₁₎ ☐ NO₍₂₎ ☐ NOT SURE₍₃₎

E. TRANSPORTATION:

1. Please identify streets or intersections in the city that you feel are hazardous due to obstructions or high traffic volumes:

_____	_____
_____	_____

2. Are there parking problems associated with any of the following downtown businesses or community facilities? (Check all that apply)

<input type="checkbox"/> CITY HALL	<input type="checkbox"/> PARKS
<input type="checkbox"/> COMMUNITY CENTER	<input type="checkbox"/> OTHER: _____
<input type="checkbox"/> LIBRARY	

3. Are there pedestrian or bicycle safety problems associated with any of the following? (Check all that apply)
- ☐ SCHOOLS
 - ☐ CITY SERVICES (CITY HALL, LIBRARY, ETC)
 - ☐ RETAIL/COMMERCIAL ESTABLISHMENTS
 - ☐ OTHER: _____

F. COMMUNITY DEVELOPMENT:

1. How would you rate the overall quality of life in Kiel?
- ☐ EXCELLENT₍₁₎
 - ☐ GOOD₍₂₎
 - ☐ AVERAGE₍₃₎
 - ☐ BELOW AVERAGE₍₄₎
 - ☐ POOR₍₅₎
2. Should woodlands, wetlands, green spaces and natural areas (Sheboygan River) in and around the City be preserved/restored?
- ☐ YES₍₁₎ ☐ NO₍₂₎ ☐ NOT SURE₍₃₎
3. Would you support the development/upgrade of recreational facilities (parks, trails) in Kiel?
- ☐ YES₍₁₎ ☐ NO₍₂₎ ☐ NOT SURE₍₃₎
4. If more money was needed to maintain or expand City services, what funding sources would you support? (Check all that apply)
- ☐ RAISING LOCAL TAXES
 - ☐ IMPLEMENT USER FEES
 - ☐ IMPLEMENT SPECIAL ASSESSMENTS
 - ☐ APPLY FOR GRANTS UNDER STATE AND FEDERAL PROGRAMS
 - ☐ OTHER: _____

G. COMMENTS:

1. Any comments or concerns you would like to express regarding this survey?
- _____
- _____
- _____
2. Any other comments or concerns you would like to express regarding the City of Kiel's past, present, or future? _____
- _____
- _____

The City of Kiel Plan Commission thanks you for your valued input and cooperation!

Robert Gebhart (Mayor)
Dennis Dederling
Charles Deibele
Melvin Waack
David Stoelting
Mike Mathes

Vicki Hildebrandt
Russ Pfefferele
Markus Ladd
Ed Majkrzak
Dan Dietrich
Bob Hennings

John Riehn
Randy Neils
Father Loren
George Engel
Brad Vogel
Stephanie Camp

Please return all surveys by 6/15/01, to the Bay-Lake Regional Planning Commission, 211 N. Broadway, Old Fort Square, Suite 211, Green Bay WI, 54303 (Self-addressed envelope included). For more information concerning this survey, please contact Brandon Robinson at (920) 448-2820 between 8-4:30, M-F.

NOMINAL GROUP RESULTS

February 7, 2001
City of Kiel
NOMINAL GROUP SURVEY RESULTS

Background

On February 7, 2001 members of the City Planning Commission, City Council, and other interested parties were involved in a Nominal Group Process in order to produce a list of issues and concerns regarding future development in the city of Kiel. The following is an explanation of the Nominal Group Process and the final list of issues and concerns as they were ranked and voted on by the group.

The list is important to the planning process as it will be used in formulating goals and objectives for the City of Kiel 2020 Comprehensive plan. The list will also help develop questions for a community-wide survey that will further clarify citizen desires and attitudes on issues identified by the group. In addition, the issues identified will be used as a checklist to ensure that they are addressed within the plan, and discussed by the Plan Commission during the planning and research phase.

Nominal Group Process

The Nominal Group Process is a technique intended to facilitate a comprehensive exploration of ideas within a group by providing mechanisms to ensure that all participate, whether they are inclined to be vocal or not. This is achieved by having ideas evolve from each individual within the group (thus the term nominal) and prohibiting the group from debating or ridiculing any idea. The group action takes the form of voting to decide which of the ideas have the greatest merit in the eyes of the entire group. The steps in the process are:

1. The Silent Generation of Ideas in Writing - Each member of the group is asked to write down, in silence, as many ideas as possible in response to the basic question "What characteristics of your community should be maintained, enhanced, added, or eliminated?"
2. Round Robin Recording of Ideas on a Flip Chart - The ideas of each member of the group are recorded and posted for all the group to see. This is done by having the group leader solicit one idea from each member at a time and recording these ideas on the flip chart. It is the responsibility of the group leader to ensure that in the process of posting ideas that neither debate nor ridicule ensues, and no member is allowed to dominate the dialogue. After all ideas are listed, it is the group leader's job to eliminate duplicate ideas and combine similar ideas with the consent of the author(s).
3. Preliminary Vote on Items of Importance - On a sheet handed out by the group leader, each member of the group is asked to identify their top five choices from among the ideas that were generated in steps 1 and 2. No one in the group should feel obliged to vote for their own ideas.
4. Tally the Sheets to Determine the Top Five Choices of the Group - Each member of the group is then asked to identify their top five choices. The most important issue is given a score of five points, the second most important four points and so on, with the least important issue scoring one point. These scores are placed next to each idea on the flip

chart and tallied. The scores are then totaled to identify the five major issues facing the city of Kiel, as well as several other issues that need to be addressed in the plan. The following list identifies every issue or concern that was brought up by the group and voted on (in rank order):

Score	Issue/Concern Regarding Future Development in Kiel
16	Maintain small town feel
13	Create a city identity/Theme
13	Create more affordable housing (Apartments)
12	Hotel/Motel needed
11	Improve communication between the city and surrounding municipalities
9	Improve signage for specific areas of the city (parks, cemeteries, etc.)
9	Downtown Enhancement
8	Preserve/restore natural habitat— river habitat
8	Ensure that existing businesses maintain their success
8	Need more diverse economic base (more service industries)
8	Good Trails (system, number, lighting)
7	Supper Club—Need more options to eat
7	Characteristics of people are good (civic minded, pride, get along)
6	Create signage for “Gateways” into the city
6	Address transportation problem near new subdivision (Hwy. 67 and Park Ave.)
5	“Build Community Spirit” –Make people aware of activities and changes in the city
5	Manage the 1.5 mile extraterritorial area surrounding the city
5	Inadequate parking in some areas (Main St., Community Center, etc...)
5	Improve the lighting at the entryways to the city
4	More housing in downtown area
4	Good mix of manufacturing, agriculture, and industry
4	Good community appearance (homogeneous development)
3	Maintain a balance between “green space” and new development
3	Need fitness center for area (YMCA)
3	Opportunity for planned growth
3	Maintain a unified feel with the new subdivisions
2	Encourage citizens to participate in more activities
2	Improve building codes and standards—(ie. architectural covenants)
2	Need adequate service and voice from other government bodies
1	Good Schools (enhanced technology, choices available)
1	Control the Goose population
1	Encourage a community marketing strategy
1	Create a nursing home facility
0	Good street maintenance
0	River clean up and appearance is good
0	Good green space—parks
0	Diversity of church groups is good
0	Good public buildings
0	Community is not landlocked – can grow

- 0 City is in good location (not gobbled up)
- 0 Improve handicap access in public buildings
- 0 Some parts of city are deteriorating
- 0 Need to improve recycling (need to enforce)
- 0 Need for a youth facility
- 0 Community should possibly visit another site and report findings
- 0 Discuss business mix for small towns (League of Wisconsin Municipalities)
- 0 Develop a panel of Kiel business leaders
- 0 Serve the diverse populations of the City (youth, elderly, future generations)
- 0 Build Comprehensive plan around 3,300-3,500 people
- 0 Make sure surrounding towns and the city keep a good working relationship
- 0 Continue the growth of police force as the city grows
- 0 Deterioration of the First Street Bridge
- 0 Concerns about future by-pass around Kiel

APPENDIX B
DETAILED LAND USE TABULATION

2001 CITY OF KIEL DETAILED LAND USE

CODE	LAND USE CLASSIFICATION	CITY ACRES	PLANNING AREA ACRES
100	RESIDENTIAL		
110	Single Family Residential	284.3	548.7
130	Two Family	18.4	19.4
150	Multi-Family	10.8	11.0
180	Mobile Homes	7.5	9.1
199	Vacant Residence	0.0	0.9
200	COMMERCIAL		
210	Retail Sales	45.3	63.5
230	Shopping Centers	0.0	1.3
250	Retail Services	5.5	5.5
299	Vacant Commercial	3.4	3.4
300	INDUSTRIAL		
310	Manufacturing	38.9	38.9
360	Extractive	0.0	123.8
381	Open Storage	0.0	0.5
382	Enclosed Storage	1.2	13.0
399	Vacant Industrial	0.0	0.9
400	TRANSPORTATION		
412	State Highways	25.1	157.0
413	County Highways	8.9	156.2
414	Local Streets and Roads	170.9	494.4
417	Off-Street Parking	3.6	8.1
440	Rail Related	8.4	31.3
500	COMMUNICATION/UTILITIES		
514	Telephone and Telegraph Terminals/Dispatch Centers	0.3	0.3
521	Natural Gas Terminals/Plants	1.6	1.6
542	Electric Power Substations	5.3	5.7
546	Radio/Television Transmission Towers/Antennae	0.0	0.5
552	Natural Gas Substations	0.0	0.7
556	Other Liquid Fuel Substations	0.0	0.7
572	Water Supply Booster/Pumping Stations	0.9	0.9
577	Water Supply Storage Tanks/Reservoirs	0.9	0.9
583	Trash/Garbage Landfills	6.9	6.9
586	Auto Salvage/Recycling/Disposals	0.0	1.5
600	INSTITUTIONAL/GOVERNMENTAL FACILITIES		
611	Administrative Buildings	0.9	1.5
612	Post Offices	0.7	0.7
614	Municipal Garages	1.3	1.3
631	Police/Fire Stations/Offices	0.5	0.5
642	Primary Schools	0.8	0.8
643	Middle School	8.8	8.8
644	Secondary Schools	60.7	65.0
651	Libraries	0.4	0.4
663	Clinics	0.2	0.2
665	Long-Term Health Care Facilities	0.8	0.8
684	Fraternal Organizations/Clubhouses	0.7	0.7
691	Churches/Temples/Synagogues	2.3	4.2
694	Fraternal Organizations/Clubhouses	4.9	11.8
700	OUTDOOR RECREATION		
721	Designated Historic/Cultural/Archaeological Sites	0.1	0.1
736	Parks/Parkways/Trails/Forest Related Picnic Areas	21.3	25.7
741	Playfields/Ball Diamonds/Volleyball Courts	16.0	16.0
766	Archery/Gun/Skeet Ranges	0.0	7.0
781	Boat Launching Sites/Areas	0.8	0.8
800	AGRICULTURE/SILVICULTURE		
805	Open Space	20.7	65.1
810	Croplands/Pastures	191.3	9509.2
830	Long-Term Specialty Crops	0.0	15.7
870	Farm Buildings/Accessories	2.8	196.2
899	Vacant Agricultural Buildings	0.0	5.2
900	NATURAL AREAS		
911	Lakes	0.0	0.3
912	Reservoirs and Ponds	3.6	45.2
913	Rivers and Streams	45.3	301.5
936	Wildlife Refuges	1.1	1.7
950	Other Natural Areas	425.3	1,664.0
951	Woodlands	45.2	5,606.5
990	Land Under Development	12.4	12.4
TOTAL ACREAGE		1,517.0	19,275.9

APPENDIX C
ECONOMIC WORKSHOP AND ECONOMIC STRATEGIES

January 30, 2002

City of Kiel

ECONOMIC WORKSHOP RESULTS

Background

On January 30, 2002 members representing businesses, the Chamber of Commerce, Kiel Schools and other interested parties were involved in an economic workshop process in order to produce a list of strengths and weaknesses regarding future economic development in the city of Kiel. The following is an explanation of the process and the final list of strengths and weaknesses and economic visions as developed by each individual from the group. The list is important to the planning process as it will be used in formulating goals and objectives for the economic element of the City of Kiel 20 Year Comprehensive plan.

Economic Workshop Process

The workshop process is a technique intended to facilitate a comprehensive exploration of ideas within a group by providing mechanisms to ensure that all participate, whether they are inclined to be vocal or not. This is achieved by having issues evolve from each individual within the group (thus the term nominal) and prohibiting the group from debating or ridiculing any issue. The steps in the process are:

1. The Silent Generation of Issues in Writing - Each member of the group is asked to write down, in silence, as many economic strengths and weakness as possible.
2. Round Robin Recording of Ideas on a Flip Chart - The issues of each member of the group are recorded and posted for all the group to see. This is done by having the group leader solicit the ideas from each member at a time and recording these ideas on the flip chart. It is the responsibility of the group leader to ensure that in the process of posting ideas that neither debate nor ridicule ensues, and no member is allowed to dominate the dialogue.

3. Generation of an Economic Vision

After all the strengths and weaknesses are listed, the group then generates an economic vision for the community based on the issues identified. This is done by each individual in silence. Each members vision is then collected by the group leader to be distributed at a later date.

Strengths and Weaknesses

The following are the list of strengths and weaknesses as identified by the group:

<u>Economic Strengths</u>
Excellent School System
Good Government
Clean City
Good industry (jobs) solid
Wide open streets

Room for growth—industrial land
Residential Growth Plan
Location within NE Wisconsin
Adequate labor pool with strong work ethic—skilled
Reasonable Utility rates
Availability of rail system
Close proximity to suppliers
Affordable housing
Good communications between organizations
Residential involvement
Family oriented community---stability
Association of Commerce
Overall stable local economy (diversified industry)
Progressive community
Transportation Accessibility --Highways
Good infrastructure
Inexpensive land
Positive community support
Low property taxes
Small town feel
Safe community
Good downtown lighting
TIF District
Family and Private owned businesses

Economic Weaknesses

Poor street upkeep
Portions of the city have “old town” feel
Decaying downtown
Lack of theme
Lack of marketing strategy
High tax rate vs. other states
Workman’s comp. expensive
Short on labor force in good times
Being a small community—hard to draw big industry
Kiel’s orientation to the west is weak
Recognition/Architectural characteristics lacking
Revitalization of downtown
High cost of labor
Lack of commercial businesses ---draw
Lack of motel downtown
Older workforce
Health costs
Lack of broad education in schools
Lack of industry attractive to young workers

Limited meeting facilities
Lack of recreational facilities
Vacant buildings downtown
Shortage of I.S. –skilled, electrical, welders, etc.
Distance from Interstate Highway
E-W Highway system bad
Environmental requirements –strict
Lack of retention of hometown people – college students
Budget challenges
Frugal community
Lack of parking downtown
Location at far reaches of Counties
Lack of assisted living
Lack of nursing home

Economic Vision Statements:

1. Family oriented, environmentally friendly community supported by a variety of business, manufacturers and professions that provide good and satisfying jobs.
2. Developing more businesses (thus creating job opportunities) and making (keeping) the city attractive to families
3. Kiel will be a strong community based on family values and an excellent economic base. It will maximize on its clean and attractive appearance while offering a diverse culture of growth. The people who live and work in Kiel will make it the “Little City That Does Big Things.”
4. I would like to see a community that is self sustaining in terms of industry and commercial that attracts college educated Kiel students as well as highly skilled workers trained by the Kiel Area School District.
5. I would like to see a quaint yet progressive city that has attracted and sustained lucrative businesses that maintain the best of our youth. That is to make our kids want to stay here.
6. Kiel should have a small town feeling with strong quality of life features. Stable local economy—both industrial and commercial.
7. I would like to see Kiel retain its picturesque feel and scenic green areas and fill its downtown with viable businesses that serve the area as well as fill a niche to attract retail trade from outside the area.
8. To see slow steady growth, diverse industry to appeal to a wide range of labor. As stable growth occurs, everything else falls into place.
9. A city with well-maintained/revitalized architectural base. Also, the city has a medium sized hotel and a variety of eating establishments. The city has a bustling downtown with many specialty shops. The city has no massive corporate giant like Walmart. In fact there are no Walmarts within 25 miles

Suggested Economic Development Strategies

1. Develop a plan to establish facilities (childcare, recreational, dining, medical, meeting places, etc.) that would attract potential workers (both existing residents and potential new residents) to work and live in Kiel.
2. Encourage local educational institutions to include specialized training programs and apprenticeship programs that would benefit local industry
3. Improve the viability of the downtown area. (CDBG Public Facilities grants, Main Street Program, establish/encourage a Downtown Business Association).
4. Market the downtown area through a Main Street or local economic program to improve and market the downtown area.(develop an economic marketing strategy to attract new business, develop a theme or identity, brochures, etc.)
5. The city should explore the opportunities to market itself in surrounding communities (develop/modify brochures, etc)
6. Encourage industries to target young workforce
7. Provide additional overnight accommodations for visitors and other out-of-town guests. (motel, bed and breakfast)

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGIES

The following categories of economic development strategies relate to increasing overall employment opportunities and income levels within the community. These are not the goals and objectives of the city of Kiel, but rather a guide to help develop the city's economic base. The BLRPC encourages the review/update and implementation of the following strategies.

The following is a road map to effective community economic development.

“IMPROVE EFFICIENCY OF EXISTING BUSINESSES. As businesses become more efficient, they become more competitive in regional, state and national markets. The greater their efficiency, the more net income they can return to the community. The ability to stay competitive is a business's best guarantee of being able to stay in business or expand in a specific locality. Efficiency is just as important to businesses in industries in which total employment is declining. The most efficient of these can survive longest.”

There are a number of actions which communities can take to assist business in improving their efficiency:

1. Introduce individuals to educational programs which could assist in strengthening the management capacities of existing businesses. Management is the factor most closely linked with business success or failure.
2. Encourage a business and industry visitation program, in which community leaders visit business executives on a regular basis in order to uncover limitations to growth. It may be possible to reduce these limitations through some form of local public or collective private action. All businesses, not just manufacturing, should be included.

3. Encourage businesses to improve the quality of the local work force by providing vocational and technical education, employment counseling and supportive social services. For example, parents who are preoccupied with the general well-being of their preschool children are seldom as productive at work; good daycare may be the answer. Constructive community action can be helpful.
4. Seek local and regional services that compete in quality and price with those of other communities. This can improve business efficiency and open access to non-local markets.
5. Encourage business and industry appreciation events. These do little per se to improve operating efficiency, but they can encourage business leaders to stay in the community and to expand. At minimum they make management feel more a part of the community, adding a positive to the intangibles of business location.

“IMPROVE ABILITY TO CAPTURE DOLLARS. In every community, farmers, the self employed, workers, retirees and businesses of all types control a substantial amount of the funds with which purchases will be made. Every dollar spend in the community, whether for retail and wholesale goods and services, or for other industrial inputs, adds to the community's employment and income. At least some of these dollars will be re-spent in the community. In contrast, dollars spent outside won't have this immediate positive impact on employment and income; nor will they have the important internal multiplier effect. Thousands of people pass by some communities on interstate highways, or visit nearby tourist attractions. The dollars spent locally by non-local people is as valuable as those generated by the exports of goods.”

Communities can take a number of steps to capture these dollars:

1. Survey consumer needs and buying habits to identify the market potential of retail and service outlets. Once opportunities are identified, individuals or businesses can be encouraged to do more specific market and financial feasibility analysis. Communities can also provide support mechanisms which help businesses conduct difficult business analyses.
2. Analyze and renew downtown shopping districts. Sophisticated, costly plans are seldom implemented without early and active merchant and local government participation in the entire process. State and national historic preservation programs can often provide funding.
3. Help employers develop employee training programs to improve the quality of service. Friendly and efficient service is the cornerstone of all successful businesses.
4. Generate more purchases by non-local people (tourists, citizens of neighboring communities) through appropriate promotion and advertising. Every place is unique in some way, whether it's because of natural resources, historic events, ethnic heritage or simply creative imagination. Such uniqueness is exploitable, but it takes organized effort by a number of people.
5. Encourage local citizens and businesses to buy locally through informational programs. Most important is that those who have something to sell use contemporary purchasing and marketing techniques. Advertising, merchandising and buying systems which served well five or ten years ago are now badly out of date. The competition is often not next door or in the next town, but in a large shopping mall or discount store in a large city miles away. Community leaders can help organize educational programs and joint promotional efforts.

6. Bring retailing centers alive by combining effective product and service promotion with recreational activities. In days gone by people went downtown to buy goods and to meet their friends. Large shopping malls and more recently large city centers have rediscovered the rewards of combining entertainment and sales.

“ATTRACT NEW BASIC EMPLOYERS. Bringing new basic employers to a community will add employment and income directly. Through the multiplier effect, it may also add other jobs and income. Basic employers can include manufacturers, non-manufacturers such as tourist attractions, insurance headquarters, computer service bureaus, warehouses, etc. But use care in estimating the potential employment and income effect of new employers. Many of the jobs are apt to be taken by new immigrants or people who live in neighboring communities. Multipliers are seldom as high as hoped for.

Community leaders can take a number of steps to attract employers:

1. Develop local industrial, office or commercial sites and public services, and provide specific information on available labor. Once they have decided where to locate, businesses want to set up shop and start operating in a hurry. Having well-prepared sites and facilities available speeds up this process. But the community has to weigh the cost of these investments against the likelihood of attracting a new industry.
2. Develop community and regional facilities to provide transportation, recreation, communication, business services, etc. These not only attract new employers; they also benefit existing businesses and prospective entrepreneurs. Businesses are giving such facilities more and more weight when selecting a location. Natural resource and market access are becoming relatively less important. Conditions which make a community a nice place in which to live are growing in importance. Generally they are strongly influenced by public or quasi-public governments.
3. Help provide capital resources. Reduced interest rates through revenue bonds and other incentives have become widespread. Large businesses often look for this type of community assistance as a way of reducing the cost of construction of new facilities.
4. Consider targeted searches for businesses that might be interested in developing a local branch operation. Admittedly, such searches are “longshots”. Nonetheless, the process of becoming well prepared to seek out prospective employers can also help businesses already in the community. The most desired types of employers can be identified through careful study.
5. Identify specific public programs, projects, offices, facilities and other services which could be located nearby, and lobby to get them. State and national government are significant employers. Programs and facilities are constantly changing. These represent a real growth opportunity.
6. Continue to support and cooperate with the local Industrial Development Corporation.

“ENCOURAGE BUSINESS FORMATION. There is a continuing need for new businesses to meet changing demands resulting from population growth or evolving goods and services (video recorders, outpatient care or fast foods, for example). A new business can mean new income and employment as well as expanded trade with local businesses. It can also capture sales which might otherwise go to other communities. Historically, communities haven't done much to take advantage of this opportunity.”

There are a number of ways to address this issue:

1. Form capital groups to invest private funds locally. In the beginning, entrepreneurs usually rely on their own financial resources, or that of family and friends. But they soon need more capital. Financial institutions are usually willing to provide debt capital to familiar businesses when loans can be collateralized. The problem comes with unfamiliar types of businesses, or those usually considered high risk. Having a local capital pool for debt or equity investment may provide the critical ingredient for success for such enterprises. These pools can be informal arrangements, or more formal, such as a community development corporation. It is important that potential entrepreneurs know the pool exists.
2. Provide counseling and intensive education for those interested in forming new businesses. First-time entrepreneurs seldom know much about business management, marketing or business plans. Nor do they know of government regulations which would affect them. A local support structure can be very helpful and encouraging to business start-ups.
3. Study the market potential for new retail, wholesale, service and industrial input-providing businesses. This points out opportunities for new local establishments. General insights can be acquired through analysis techniques such as input-output, location quotients, population/ employment ratios, and trade area capture. More detailed analysis will be required to identify real opportunity in the sectors which look promising.
4. Be aware that adversity often stimulates entrepreneurship. Plant closings or layoffs get people interested in going into business for themselves. Local leaders should be sensitive to this, encourage, and support entrepreneurship at these critical times.
5. Adopt an encouraging community attitude towards entrepreneurship. Many new businesses fail after a short period. Highly successful small business operators have often failed once or twice before finally achieving their goals. Communities should recognize this pattern, and encourage prospective businesses to try again.
6. Provide the same services and incentive to businesses in formation as to businesses already in existence or those being sought from outside.

“INCREASE AIDS RECEIVED FROM BROADER GOVERNMENTS. A community may strive to get back some of the dollars taxed away by broader governmental units, and if possible, to acquire dollars taxed in wealthier areas. Not only are state and national governments major employers, but they return large quantities of funds to local governments through grants and aids. These funds do not always come by an aid formula; often the local government must specifically request them. Social security, Medicare, and Medicaid payments are also major sources of personal income. Communities must be sensitive to all these sources of income.”

The following are strategies which communities can follow to attract these funds.

1. Organize education and other program efforts to assure the correct use of public assistance programs for the elderly, handicapped and others who cannot work. People do not always know what kinds of state and national financial assistance is available. Getting such assistance usually requires some form of supportive structure.
2. Provide well-organized public transportation, meal service, outpatient health care, recreation and other services focused on the elderly. These are among the things retirees consider when choosing a place to live. Most of these activities are within the financial grasp of well-organized small communities. Such efforts go a long way toward keeping the buying power in the community. That buying power not only includes transfer payments, but an equally large amount of dividends, interest, and rent.
3. Obtain aids from broader governments whenever possible (e.g. streets, parks, sewers) by actively monitoring government programs; local officials can lend valuable support in this effort. It is almost impossible for any individual to be aware of all the programs which might provide financial or other assistance. This is a task which can be clearly divided by an organization in cooperation with local government officials.
4. Support political activities which insure that the community's concerns get fair treatment from broader governmental units. Monitoring and positive political effort on an ongoing basis are necessary.

APPENDIX D
FACILITY DEVELOPMENT MANUAL -
STREET DESIGN CRITERIA



Facilities Development Manual

Originator Director, Bureau of Highway Development		Procedure 11-20-1
CHAPTER 11	Design	
SECTION 20	Cross Section Elements for Urban Highways	
SUBJECT 1	Dimensions and Design Classes	

Cross Slope

The pavements of urban roadways should typically have a crown in the middle and slope downward toward both edges. The downward cross slope shall be a plane rather than a curved (parabolic) section. The cross slope rate should conform to the following:

Lanes	Minimum	Maximum
Driving	2%	3%
Parking, Turning, etc.	2%	4%

Cross slopes outside these ranges may be warranted depending on the situation.

Curb or Curb and Gutter

The design of curbs is based on whether the improved roadway will be defined as "low speed urban," "transitional," or "high speed urban." The designer should therefore first determine the type of roadway, then use the guidelines for that roadway type to determine the curb design that may be needed.

A roadway is defined as "low speed," "transitional," or "high speed" based on two characteristics:

- Cross-section
- Posted speed (regulatory speed)

An urban roadway is one that controls surface drainage using curbs and may have an enclosed storm sewer system that may discharge into an open channel.

As Table 1 shows, roadways with an urban cross section and a posted speed of 40 mph (60 km/h) or less are considered "Low Speed Urban," whereas roadways with an urban cross section and posted speeds of 50 mph (80 km/h) or greater are considered "High Speed Urban." Most other roadways are considered "Transitional." Please note that the location of the roadway within the corporate limits of a city does not necessarily mean that the roadway has an urban cross-section.

Table 1 - Matrix for Determining Roadway Type

Posted Speed	40 mph (60 km/h) or less	45 mph (70 km/h)	50 mph (80 km/h) or greater
Urban Cross Section	Low Speed Urban Roadway	Transitional Roadway	High Speed Urban Roadway

Normally, the method of handling the drainage determines the cross section. Given the cross section, the designer then uses the posted (regulatory) speed to determine the type of roadway and the information in the following paragraphs to select the appropriate curb

design.

When designing curb for a new roadway, the expected posted speed should be used. The posted speed limit is not required to correspond to the design speed or to an individual design element within a project. The designer shall consult with the district traffic engineer to determine the appropriate posted speed that will be implemented following completion of an improvement project. (See Chapter 13 of the WisDOT Traffic Guidelines Manual for guidance relating to posted speed limits). In the case of a local roadway or connecting highway, the designer should also consult with the local municipality having jurisdiction over the roadway when determining the appropriate posted speed limit.

When determining the acceptability of a given curb design (height & offset), the designer should consider other characteristics of the roadway corridor. In addition to drainage and the posted speed, the designer should consider:

- need to maximize capacity,
- degree of adjacent roadside property development,
- need for on-street parking
- need for sidewalks
- need for bicycle facility accommodation
- frequency of access points
- functional classification
- availability and cost of right-of-way

Increases in any of these factors may make the character of the roadway more low speed urban.

General Curb Design Information

Dimensions and details of recognized curb and gutter designs are found in Chapter 16, Standard Detail Drawings, of this manual.

Use of non-standard curb designs is discouraged, but may be necessary where site conditions dictate. Prior to inclusion in a project plan, alternate designs shall be discussed in the Design Study Report in accordance with the process explained in Procedure 3-15-25.

Curb type and placement near traffic barriers (guardrail, etc.) and crash cushions is important because there is the potential for an errant vehicle to vault. High speed impacts to curbs can cause vehicle damage leading to loss of vehicle control.

The designer should evaluate whether a roadway taper or curb cut (driveway entrance curb) should be provided at the approach end of traffic barrier end treatments or crash cushions to minimize any adverse effect on traffic barrier or crash cushion performance. The decision to provide a taper or curb cut at the approach to an end treatment should be based on the type of end treatment, drainage requirements, roadway cross-section and available right-of-way.

The designer is referred to the *Roadside Design Guide* (AASHTO 1996) for further guidance on curb placement around traffic barriers and crash cushions.

Low Speed Urban Roadways

- The designer should use a 6-inch (**150 mm**) barrier curb to control both surface drainage and access.
- For raised median curb, the designer may use either the desired 2-foot (**0.6 m**) offset or 1-foot (**0.3 m**) minimum offset from the edge of the traveled way to the face of curb. (A 2-foot (**0.6 m**) or 1-foot (**0.3 m**) gutter section will meet minimum requirements)
- For outside curb, the designer may use either the desired 2-foot (**0.6 m**) offset or 1-foot (**0.3 m**) minimum offset from the edge of the traveled way to the face of curb. (A 2-foot (**0.6 m**) or 1-foot (**0.3 m**) gutter section will meet minimum requirements)

- Island curbs should match the design of the curb used on the roadway section unless the roadway environment or maintenance activities dictate a different delineation such as traffic pavement marking or an alternative curb design. Designers should coordinate their design with district and/or municipal operations staff.
- Certain characteristics of the roadway corridor may limit the ability to offset the curbs by the 1-foot (**0.3 m**) minimum from the edge of the traveled way. In these situations the median curbs and curbs on the outside edge of the roadway may have offsets less than 1-foot (**0.3 m**). However, the reasoning for the reduced offsets shall be documented in the Design Study Report. (To mitigate for the reduced offset, a mountable curb may be required)
- The designer is referred to both the *Policy on Geometric Design of Highways and Streets* (GDHS, AASHTO 1994) and the *Roadside Design Guide* (AASHTO 1996) for further guidance on curb type and placement.

Transitional Roadways

- If the posted speed is greater than 40 mph (**60 km/h**) then the designer should eliminate curbs when possible.
- If curbs are required to control drainage the designer should use 6-inch (**150 mm**) mountable curbs rather than 4 -inch mountable.
- In limited situations where the access point is not clearly delineated and can not be controlled by other means, a 6-inch barrier (**150 mm**) curb may be used. Document reasons for using the barrier curb in the DSR.
- Curbs and Curb Offsets - The designer should consult with the district planning and traffic personnel and the local municipality, regional planning organization, or county planning department to determine the nature and extent of existing or planned development surrounding or impacting the proposed roadway corridor. In addition to reviewing the nature and extent of existing or planned development, the designer should also consider the roadway's functional classification and frequency of access points.

Undeveloped Areas:

- Curbs should be 6-inch (**150 mm**) mountable curbs.
- Both median curbs and outside curbs should be offset to the edge of a normal-width shoulder. (See Procedure 11-15-1, Figure 5)
- Median curb and curbs on the outside edge of the roadway with offsets less than the normal-width shoulder will require justification in an Exception to Standards Report (See Procedure 11-1-2)

Developing Areas:

- Curbs should be 6-inch (**150 mm**) mountable curbs.
- Both median curbs and outside curbs should be offset to the edge of a normal-width shoulder. (See Procedure 11-15-1, Figure 5)
- Certain characteristics of the roadway corridor may limit the ability to offset the curbs by the normal width shoulder. In these situations the median curbs and curbs on the outside edge of the roadway may have a minimum 2-foot (**0.6 m**) offset from the edge of traveled way to face of curb. However, reasoning for the 2-foot curb offset shall be documented in the Design Study Report. (A 2-foot (**0.6 m**) gutter section meets minimum offset requirement)
- Median curb and curbs on the outside edge of the roadway with offsets less than the 2-foot (**0.6 m**) minimum will require justification in an Exception to Standards Report (See Procedure 11-1-2)

Developed Areas:

- Curbs should be 6-inch (**150 mm**) mountable curbs.
- Both median curbs and outside curbs should be offset to the edge of a normal-width shoulder. (See Procedure 11-15-1, Figure 5)
- Certain roadway characteristics may warrant that median curbs and curbs on the outside of the roadway be offset a minimum of 2 feet (**0.6 m**) from the edge of the traveled way. A 2-foot (**0.6 m**) gutter section meets minimum requirements. No Design Study Report or Exception to Standards Report documentation is required. Where parking is prohibited, however, consideration should be given to bicycle accommodation.
- Median curb and curbs on the outside edge of the roadway may have offsets less than the 2-foot (**0.6 m**) minimum. However, the reasoning for the reduced offsets shall be documented in the Design Study Report.
- Offsets of less than 1-foot (**0.3 m**) shall require justification in an Exception to Standards Report (See Procedure 11-1-2). A 1-foot (**0.3 m**) gutter section meets minimum requirement)

High Speed Urban Roadway

- In general, neither barrier nor mountable curbs are desirable for use on high-speed roadways. Therefore, curbs on urban high speed roadways should be eliminated where it is practical to do so.
- When a curb is used, a 4-inch (**100 mm**) mountable curb design is preferable. However, a 6-inch (**150 mm**) mountable curb design may be used when required by drainage or access control considerations.
- A normal shoulder width offset from the traveled way to the face of the median curb and from the traveled way to the outside edge of the roadway is required (See Procedure 11-15-1, Figure 5). However, in special cases, when justified by an Exception to Standards Report, a minimum offset of 2 feet (**0.6 m**) to the face of curb may be acceptable.
- Curbs are not desirable in front of guardrail, because they can result in unpredictable post-impact trajectories and potential vaulting of errant vehicles. Curb on high speed roadways should ideally be located either flush with the face of the guardrail or behind it. The designer should refer to the Roadside Design Guide (AASHTO 1996) for further guidance on curb placement around traffic barriers and crash cushions.

Medians

Medians are included on two-way streets in Design Classes 4 and 5 (see Figures 1 through 3). Types of median and their recommended design are discussed on the following pages and pages 527-531, GDHS. Except at intersections, obstacles in the median that cannot be installed with breakaway supports, such as bridge piers, should be shielded with attenuators or traffic barrier, or be removed.

For a discussion of median openings and median widths where left-turn bays will be installed, refer to Procedure 11-25-5. The minimum median widths required for U-turns are shown in Figure IX-67, page 825, GDHS.

Indicated widths of median referred to in this procedure are based on the definition appearing in the GDHS, which is "the dimension between through lane edges and includes the left shoulders, if any."

Medians should be as wide as practical, with 30 feet (**9.0 m**) normally being the maximum width. When crossing traffic is a factor medians should not be less than 24 feet (**7.2 m**). Lesser widths down to 14 feet (**4.2 m**) are appropriate when there is predominantly left-turning movement and few cross traffic vehicles. Median widths less than 14 feet (**4.2 m**) are

adequate to provide for separation and prevent conflicts between vehicles traveling in opposite directions.

Medians for urban streets are designated as either curbed or flush.

Curbed Medians

The median edges usually consist of a 1 to 2 foot (**0.3 to 0.6 m**) gutter and a six-inch (**150 mm**) high vertical or sloped face curb (see SDD for curb and gutter details).

Several choices are available as to the treatment of the median area between the curbs. It can be raised or depressed and covered with grass, artificial turf, or gravel, paved with asphaltic or P.C. concrete, etc. Selected treatment will vary depending primarily on drainage considerations and pavement slopes, with secondary consideration of aesthetics, plantings, etc.

If the median area is crowned, low-side median curb and gutter (gutter slopes toward curb) should be used. This assumes that the roadways are also crowned and the driving lanes adjacent to the median drain toward the median. Low-side curb and gutter should also be used in superelevated areas.

For projects where all roadway lanes pitch to the outside, use a depressed median and high-side curb and gutter (gutter slopes away from curb).

Designs utilizing low-side curb and gutter are the most desirable as they tend to minimize the wet and slippery conditions caused by snow melt.

Flush Medians

On streets with numerous businesses raised medians restrict access and force drivers to make U-turns at median openings to reach their destination. With a flush median the center lane can be reserved for vehicles making left turns from both directions. For more information on two-way left-turn lanes refer to Procedure 11-25-5.

Two types of flush medians are available. The first is truly flush with the edge of driving lanes on either side. (Figure VII-5B, page 514, GDHS) It is delineated by either painting or paving with contrasting type of pavement. The second type of flush median consists of a slightly raised pavement, normally having a corrugated surface. Cross slopes for flush medians can be varied as required to satisfy other conditions.

Traffic Lanes

The number and width of traffic lanes for each design class are shown in Figures 1 and 1M. Narrower lanes are permitted only where the most stringent limitations are imposed by the topography or by right-of-way costs, and then a careful study should be made of the effect of the reduced width on traffic capacity.

Lane widths for collectors or streets with high truck and bus volumes should be 12 feet (**3.6 m**). A single lane should generally not exceed 12 feet (**3.6 m**) in width, except center lanes reserved for left turns may be 14-16 feet (**4.2 - 4.8 m**) wide.

When there is room for a single paved lane in the center of an undivided two-way street it may be:

1. Marked for traffic in one direction if the volumes are always heavier in that direction.
2. Marked as a reverse flow lane if the heavy direction of flow changes during the day.
3. Used for left-turn storage and paved with a contrasting material and/or conspicuously marked if there is a large percentage of turns at many intersections.

Reverse flow lanes can generally be considered when right-of-way is restrictive and more than two-thirds of the peak-hour traffic flows in opposite directions daily. More than one lane may be designed to carry reverse flow traffic if needed (refer to pages 555-556, GDHS).

Auxiliary And Parking Lanes

Urban pavement widths over and above that required for traffic lanes are frequently necessary (or desirable) to accomplish the following urban needs:

1. Enable two-way arterial traffic to bypass a disabled vehicle.
2. Allow for safer entrance and exit from intersections and driveways.
3. Maintain greater separation of pedestrians and moving vehicles when sidewalks abut the curb.
4. Maintain greater separation of bicyclists and moving vehicles.
5. Enable turning movements to be accomplished by trucks or buses minimizing or eliminating encroachment on opposing traffic lanes.
6. Provide temporary storage areas for snow.
7. Provide storage space for turning vehicles.
8. Provide for parking.

When parking must be accommodated, the additional roadway width required for this purpose more than suffices for all the other items in the preceding listing.

Parallel parking is an added benefit for adjacent business, but it results in a reduction in capacity, especially during peak traffic times. Studies of street capacity have found that curb parking reduces capacity by 1/4 - 1/3 or more on typical streets. The area occupied by parked vehicles is not available for traffic movement. The effect on capacity and service volumes is thus equivalent to a reduction in effective width of at least 8 feet (2.4 m). Additionally in areas of heavy parking turnover a sporadic interruption in the adjacent lanes will result from vehicles entering or leaving parking spaces. When capacity problems exist, removal of all on street parking should be considered, when possible. Parking can interfere with emergency and service vehicles such as: police, fire, ambulance, trash collection and water utilities. On street parking is also a major factor to be considered in causes of traffic accidents because of improperly or illegally parked vehicles and pedestrians entering the street from between parked vehicles.

In the case of arterials, the design year traffic volumes should be high enough to require the parking lanes to ultimately act as live traffic lanes. Regardless of whether the anticipated ultimate use is for parking or driving purposes, parking lanes should be wider in commercial areas.

Desirable Lane Widths To Accommodate Parallel Parking	
	(Width Including Gutter)
Arterial Street (or Collector in commercial area)	12' (3.6 m)
Collector (non-commercial area)	8-10' (2.4 - 3.0 m)
Local Street	8' (2.4 m)

Parking should be restricted near intersections for the purpose of increasing sight distance, reducing conflicts for turning traffic, and providing bus storage or loading zones. See page 710, GDHS for parking restrictions at intersections.

Angle Parking

Various studies have shown that angle parking is particularly unsafe and should be replaced with parallel parking if possible. Angle parking presents problems because of the varying length of vehicles and the sight distance problems associated with vans and recreational vehicles.

Angle parking also requires a much wider parking lane than does parallel parking. Lane widths of 15 to 20 feet (4.5 to 6.0 m) are required depending on the degree of angle used.

Angle parking should therefore, not be used except in the following situation.

1. On low volume local streets which have adequate width to safely accommodate this type of parking and
2. The additional parking is absolutely necessary for the economic stability of the local community.

A typical situation when angle parking may become an issue is when a street improvement is planned and the angle parking already exists. In this case accident records should be reviewed to assess the safety impact of this type of parking before allowing it to continue.

When angle parking is determined to be required, it should be treated as a design exception and documented accordingly. Documentation should include an accident analysis, posted speed, street width, traffic volumes and a discussion why it is necessary to the economic stability of the community to retain it.

No Parking

When provision for parking is unnecessary, roadway widths for the no-parking condition given in Figures 1 and 1M should be followed. However, if the roadway is a two-lane STH or Connecting Highway - and no provision for parking is to be made - a total width of 36 feet (**10.8 m**) from face to face of curbs shall be used. This width will provide all the needs previously listed - except parking, and could not be used for that purpose. (When parking is to be permitted on one side only, the greater than 36 feet (**10.8 m**) without parking should only be considered when there is a reasonable chance of needing additional traffic lanes within the foreseeable future.

Borders

A border is the area adjacent to a street, measured from the face of curb to the right-of-way line, normally consisting of a curb, terrace, sidewalk, and sidewalk clearance (see Figures 2 and 3). Many municipalities have developed their own design standards and policies for these items which may vary somewhat from those indicated in this procedure. The municipality's standards should be used when practical and not in conflict with WisDOT policy. When designing an urban project it is desirable to design from the outside toward the center so as first to assure that sidewalks, curbs, etc., have the best possible fit to the abutting property. From the established curb profiles traffic lane profiles can be developed, with necessary warping occurring mostly in the parking or curb lanes.

A terrace is the area between the front face of the curb and the edge of the sidewalk, usually consisting of grass. In some areas, such as central business districts with heavy pedestrian usage, this area is completely paved as sidewalk.

In determining terrace width, consideration should be given to snow storage, plantings (provide at least a 3-foot (**0.9 m**) clearance from trees to curb or sidewalk), utility size and placement, parking restrictions, and sign location. Also refer to "Lateral Clearance" of this procedure. It is desirable that terraces have a minimum transverse slope of 4%.

Sidewalks should be placed higher than the curb top and sloped to drain toward the street. Transverse slope is 2%. Changes in level are important in the sidewalk environment, especially to impaired users. Changes in level are vertical elevation differences between adjacent surfaces and should generally not exceed 0.5 inch.

Slopes And Ditches

In urban areas where the roadways are designed to match the existing property at the street right-of-way, the slope (width) is usually kept to a minimum. If the roadway does not match abutting property, the choices are to acquire permanent right-of-way (acquire in fee or easement), or a temporary construction permit, or build a retaining wall when close structures do not permit the use of adequate slopes. See GDHS, page 589 and the Bridge Manual for guidance in the use of retaining walls.

When the depth of cut or fill is about 5 feet (**1.5 m**) or above, permanent right-of-way (acquired in fee or easement) is required so as to have permanent rights to maintain the slope. For lesser heights where it is only necessary to construct the slope and "dress up" the adjacent land, temporary limited easements should be obtained.

Slopes should be flattened and shaped to fit the existing topography to provide a pleasing, natural appearance consistent with effective erosion control and adequate drainage.

Generally, ditches that are parallel to a street (roadside ditches) are not required in an urban area. However, if ponding is anticipated adjacent to a fill section, or if the natural sheet flow is interrupted because of the street, an inlet should be placed in the ponded area or roadside ditches should be constructed with a minimum longitudinal slope of 0.5%.

Lateral Clearance

Street parking may be unrestricted, restricted, or prohibited. With prohibited or restricted parking greater offsets from the curb are needed for utilities, etc., since the outer lanes are available to carry moving traffic. Recommended lateral clearances as given below, which define the urban safety section shown in Figures 2 and 3, are measured from the edge of the driving or parking lane as appropriate and anticipate a gutter width of 2 feet (**0.6 m**). They are appropriate when vertical face curb is used.

Lateral Clearance for Streets			
<u>Minimum</u>			
Parking Condition	Highly Developed Area	Outlying Areas	Desirable Minimum
With Parking	4 ft. (1.2 m)	4 ft. (1.2 m)	6 ft. (1.8 m)
Without Parking	4 ft. (1.2 m)	6 ft. (1.8 m)	8 ft. (2.4 m)

★

URBAN STREETS ROADWAY CHARACTERISTICS

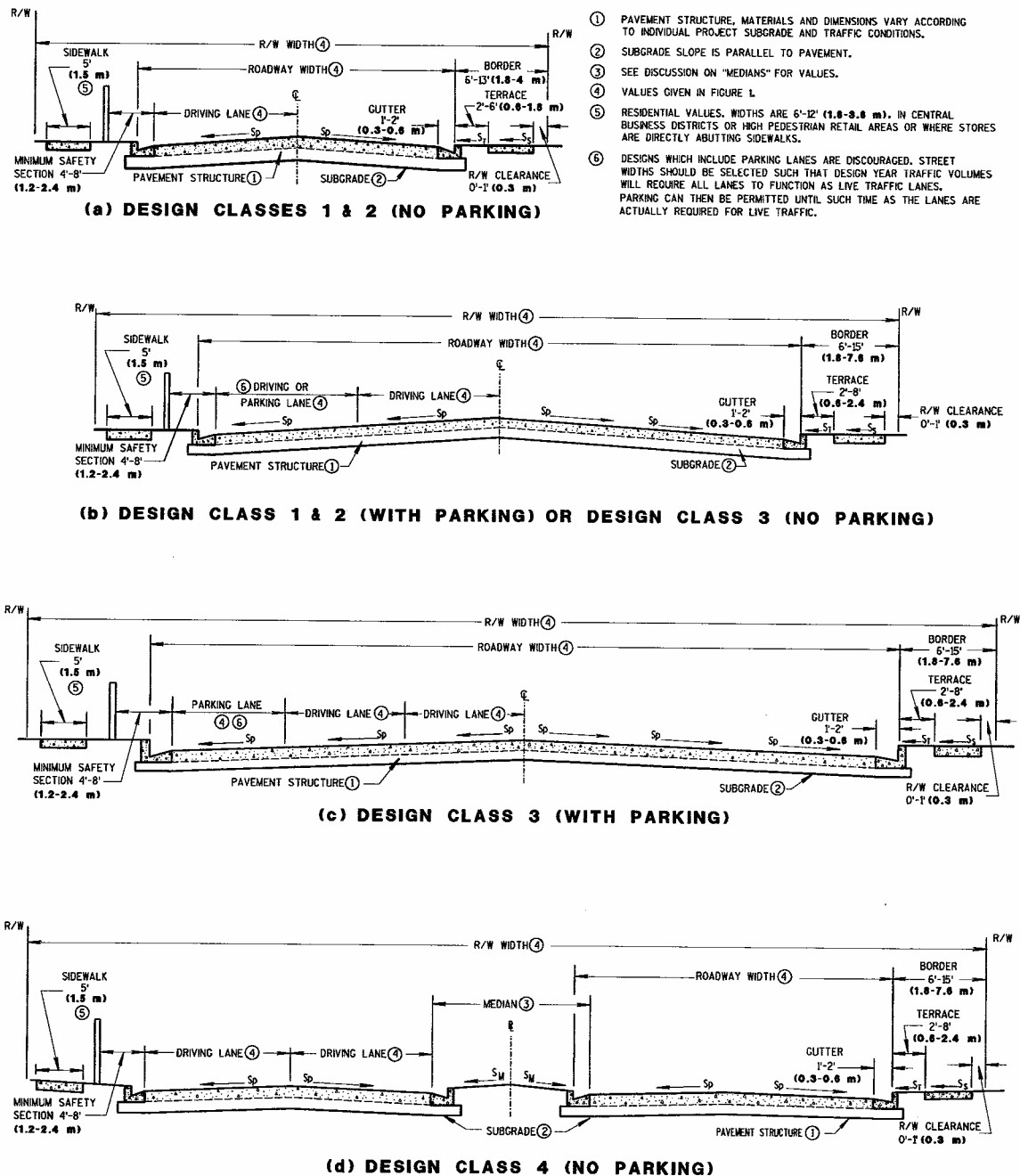
Functional Classification			Design Basis		Roadway Width										
Design Year A.D.T. At: Level of Service (1)	C	C	Design Class	Design Speed M.P.H.	Traffic Lanes			Curb to Curb Width (ft) (2)							
					No.	Width (ft.) (3)		Median							
									No Parking(5)		Parking (4)				
Local	Collector	Arterial													
(6)			1	25	2	10	11	No	24-30	28	32-36	34			
	< 13,000		2	30-35	2	11	12	No	26-36	36	40-48	44			
	> 13,000	13,000 to 17,000	3	35-40	4	11	12	No	48-56	52	60-76	68			
		17,000 to 25,000	4	40-45	4	11	12	Yes	2@ 26-28	2@ 28	2@ 34-38	2@ 38			
		25,000 to 35,000	5	45-50	6	11	12	Yes	2@ 37-40	2@ 40					

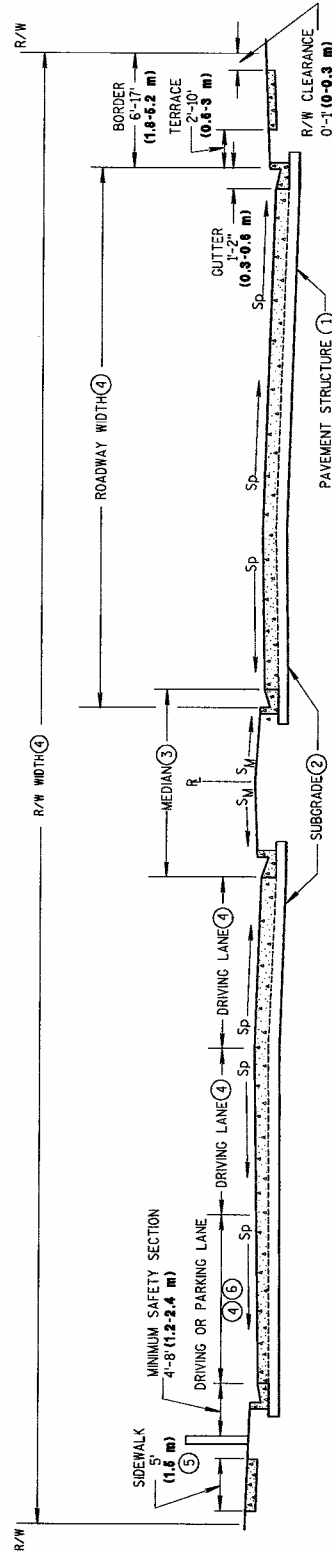
- (1) Ranges of traffic volumes were determined from Northwestern University's Intersection Capacity Chart #4 and assuming: no parking, negligible buses, 10% right turns, 10% left turns, 5% trucks, adjustment for metropolitan area size and peak hour factor = 0.92, k = 10% and D = 60 - 40.
- (2) Based on 2' gutter widths.
- (3) Gutter width not included.
- (4) Designs which include parking lanes are discouraged.
- (5) Two lane Connecting Highways and STH's shall have a curb to curb width of 36 feet when no provision for parking is to be made.
- (6) Volume not a consideration.

URBAN STREETS ROADWAY CHARACTERISTICS

Functional Classification		Design Basis		Roadway Width									
Design Year A.D. T. At Level of Service (1)		Design Class	Design Speed (km/h)	Traffic Lanes			Median	Curb to Curb Width (m) (2)					
				No.	Width (m) (3)			No Parking(5)		Parking (4)			
								Range of Normal Widths	Desirable	Range of Normal Widths	Desirable		
Local	C Collector	C Arterial	Design Class	Design Speed (km/h)	No.	Min.	Desirable	Median	Range of Normal Widths	Desirable	Range of Normal Widths	Desirable	
(6)			1	40	2	3.0	3.3	No	7.2 - 9.0	8.4	9.6 - 10.8	10.2	
			2	50-60	2	3.3	3.6	No	7.8 - 10.8	10.8	12.0 - 14.4	13.2	
	> 13,000	13,000 to 17,000	3	60	4	3.3	3.6	No	14.4 - 16.8	15.6	18.0 - 22.8	20.4	
		17,000 to 25,000	4	60-70	4	3.3	3.6	Yes	2@ 7.8 - 8.4	2@ 8.4	2@ 10.2 - 11.4	2@ 11.4	
		25,000 to 35,000	5	70-80	6	3.3	3.6	Yes	2@ 11.1 - 12.0	2@ 12.0			

- (1) Ranges of traffic volumes were determined from Northwestern University's Intersection Capacity Chart #4 and assuming: no parking, negligible buses, 10% right turns, 10% left turns, 5% trucks, adjustment for metropolitan area size and peak hour factor = 0.92, k = 10% and D = 60 - 40.
- (2) Based on 0.6 m gutter widths.
- (3) Gutter width not included.
- (4) Designs which include parking lanes are discouraged.
- (5) Two lane Connecting Highways and STH's shall have a curb to curb width of 10.8 m when no provision for parking is to be made.
- (6) Volume not a consideration.





(e) DESIGN CLASS 4 (WITH PARKING) OR DESIGN CLASS 5 (NO PARKING)

- ① PAVEMENT STRUCTURE, MATERIALS AND DIMENSIONS VARY ACCORDING TO INDIVIDUAL PROJECT SUBGRADE AND TRAFFIC CONDITIONS.
- ② SUBGRADE SLOPE IS PARALLEL TO PAVEMENT SLOPE.
- ③ SEE DISCUSSION ON "MEDIAN" FOR MEDIAN WIDTH VALUES.
- ④ VALUES ARE GIVEN IN FIGURE 1.
- ⑤ VALUES ARE GIVEN FOR RESIDENTIAL AREAS. WIDTHS ARE 6'-12" (1.8-3.6 m), IN CENTRAL BUSINESS DISTRICTS OR HIGH PEDESTRIAN RETAIL AREAS OR WHERE STORES ARE DIRECTLY ABUTTING SIDEWALKS.
- ⑥ DESIGNS WHICH INCLUDE PARKING LANES ARE DISCOURAGED. STREET WIDTHS SHOULD BE SELECTED SUCH THAT DESIGN YEAR TRAFFIC VOLUMES WILL REQUIRE ALL LANES TO FUNCTION AS LIVE TRAFFIC LANES. PARKING CAN THEN BE PERMITTED UNTIL SUCH TIMES AS THE LANES ARE ACTUALLY REQUIRED FOR LIVE TRAFFIC.

NOTES:

RANGES OF WIDTHS FOR SIDEWALK, TERRACES, R/W CLEARANCES AND BORDERS ARE TAKEN FROM THE DISCUSSION ON "BORDERS" AND SAFETY SECTIONS ARE TAKEN FROM "LATERAL CLEARANCES".
RECOMMENDED MINIMUM CROSS SLOPES: PAVEMENT (Sp) - 2%, MEDIAN (Sm) - 2%, GRASS - 4%, TERRACE (St) - 4%, SIDEWALK CROSS SLOPE IS (Ss) - 2%.

TYPICAL STREET CROSS SECTIONS

APPENDIX E
RESPONSE TO PUBLIC COMMENTS

CITY OF KIEL

“The Little City That Does Big Things”

RESPONSE TO PUBLIC COMMENTS

The city of Kiel has prepared the following in response to comments received regarding the *City of Kiel 20 Year Comprehensive Plan* prior to its adoption on December 10, 2002. All comments were reviewed on a case-by-case basis and separated into two categories: those comments addressing information of a factual nature; and those comments expressing an opinion about aspects of the plan. All factual comments were reviewed, compared to the plan and information was changed accordingly where needed. All comments expressing an opinion were reviewed and verified with the plan to assure that the concerns expressed had been addressed within the plan or planning process.

The city received a total of three written comments and five verbal comments on the draft *City of Kiel, 20 Year Comprehensive Plan*.

Bay-Lake Regional Planning Commission

December, 2002

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Paul Jadin
Clarence J. Lamers

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