City of Marquette

Community Master Plan



A Superior Vision for Marquette

Community Master Plan

RESOLUTION OF ADOPTION

City of Marquette, Michigan

City of Marquette Planning Commission

WHEREAS, State of Michigan Public Act 33 of 2008, as amended, provides for a municipal Planning Commission to prepare, amend, and adopt a Master Plan for the physical development of the City; and,

WHEREAS, the City of Marquette Planning Commission has amended its Community Master Plan for the City of Marquette, by means of a public process that began in 2012, in compliance with said Public Act 33; including updated text, charts, and maps; and,

WHEREAS, the City of Marquette Planning Commission has collaborated with the public to establish a vision for the Community Master Plan, and provided numerous other opportunities for public input into the Master Planning Process, including an announced public comment period between April 29th and June 9th (2015) and an Open House held on May 27, 2015 to answer questions and receive written and oral comment on the draft amended Master Plan; and,

WHEREAS, the City of Marquette Planning Commission, in accordance with Section 39(2) of the Act, notified adjacent communities, relevant agencies and the Marquette County Planning Commission of the intent to amend the Master Plan, and in accordance with Section 41(2) of the Act distributed the final draft to those entities for review and comment, and;

WHEREAS, the Marquette City Commission - the legislative body of the City - has had the opportunity to review the proposed amendments to the Community Master Plan and comments received during the defined comment periods, and has provided detailed comments to the Planning Commission regarding the proposed amendments to the Community Master Plan, and has by a resolution dated July 27, 2015 granted the City of Marquette Planning Commission the opportunity to adopt the amended Community Master Plan; and

WHEREAS, at a public hearing held on August 18, 2015 the citizens of the City of Marquette were afforded the opportunity to provide oral comments on the amended Community Master Plan to the Planning Commission;

NOW THEREFORE BE IT RESOLVED THAT, the content of this document, together with all maps attached to and contained herein are hereby adopted by the City of Marquette Planning Commission as the *City of Marquette Community Master Plan*, on this 18th day of August, 2015.

Motion: **P. Schloegel** ***Second:*** **G. Moran**

Ayes: **A. Andres, T. Klipp, C. Kovala, R. Kulisheck**

Nays: **None**

Absent: **S. Lawry**

The Chairman and Secretary of the Planning Commission hereby certify that the above resolution was duly adopted at a meeting of the City of Marquette Planning Commission held on August 18, 2015.

Taylor Klipp, Chairman

David Stensaas, Secretary/City Planner

Resolution

Resolution for the Right to Approve or Reject an Amendment of the Community Master Plan

WHEREAS, the Michigan Planning Enabling Act, P.A. 33, of 2008, requires the Planning Commission to develop and adopt a Master Plan for the City, and the most recent edition of the Community Master Plan (CMP) was adopted on August 15, 2015; and,

WHEREAS, the Planning Commission acted to amend the CMP in December of 2016 and in that month Notices of Intent to amend the Community Master Plan were sent to all required entities and other governmental agencies, consistent with the provisions of the Michigan Planning Enabling Act, P.A. 33, of 2008; and,

WHEREAS, the Planning Commission has drafted a comprehensive amendment to the text of the Community Master Plan (the 2018 draft CMP Amendment) – along with additional recommendations and evaluated the status of the recommendations of the 2015 CMP - and proposed that it be added to the document as Appendix J, and have after careful consideration drafted an updated Future Land Use Map and an updated Proposed Zoning Map, and,

WHEREAS, the Planning Commission has, at their meeting held on October 2, 2018, requested that the City Commission act to allow the 2018 draft CMP Amendment be circulated to the public and to all required entities and other governmental agencies, consistent with the provisions of the Michigan Planning Enabling Act, P.A. 33, of 2008, for public examination and comment, and,

WHEREAS, the City Commission may, per P.A. 33, of 2008, take action to adopt a resolution asserting the right to approve or reject the 2018 draft CMP Amendment after the comment period ends and after the Planning Commission holds a hearing to adopt the CMP amendment;

NOW THEREFORE BE IT RESOLVED, that the Marquette City Commission, hereby adopts this Resolution to assert the right to approve or reject the Planning Commission's adoption of the 2018 draft CMP Amendment after the comment period ends and after the Planning Commission holds a hearing to adopt the CMP amendment.

Dated this 9th day of October, 2018.

Roll Call Vote:
Ayes: Mayor Campana. Commissioners Frazier, Plourde, Reynolds, Schloegel and Smith.
Nays: None.
Absent: Mayor Pro-tem Stonehouse.

David J. Campana

David J. Campana, Mayor

Kris M. Hazeres

Kris M. Hazeres, Clerk

Community Master Plan

City of Marquette, Michigan
Adopted August 18, 2015
Amended December 17, 2018

ACKNOWLEDGEMENTS

Planning Commission members
(January 2012 – August 2015)

Aaron Andres
Brett Beranek
Stephen DeGoosh, Chairman
Jacob Guter
Travis Hongisto
Taylor Klipp, Chairman, Vice Chairman
Christopher Kovala
Natasha Koss
Robert Kulisheck
Steven Lawry, Chairman, Vice Chairman
Gary Moran, Vice Chairman
Joel Norton
Robert O'Neill
Sean Penglase
Wayne Premeau, Chairman, Vice Chairman
Elizabeth Roberts
Joseph Scanlan
Paul Schloegel
Charles Shafer
Glenn VanNeste

Planning Commission members
(December 2016 – November 2018)

Aaron Andres, Chairman
Erick Brooks
Joy Cardillo
John Carlson
Bridgette Jaakola
Christopher Kovala
Taylor Klipp, Chairman, Vice Chairman
Michael Larson
Sarah Mittlefehldt
Antonio Ruiz
Wayne Premeau
Paul Schloegel, Vice Chairman

Contributing Staff, City of Marquette Community Development Department

Matt Koss, Engineering Technician/GIS Specialist
Andrea Landers, Planning and Zoning Official
Dave Stensaas, City Planner and Zoning Administrator, Project Coordinator
Dennis Stachewicz, Director of Planning and Community Development
Keith Whittington, City Engineer

Contributing Interns

Jannis Bartning - Geomatics student, NMU
Walter Elsner - Geomatics student, NMU
Rosie Frankowski - Fellow student, NMU
Laura Haw - Planning student, U. Mich.
Rhiannon Haller - Planning student, U. Mich.
Sean Hobbins - Fellow student, NMU
Murray Koonala - Admin. student, NMU
Geneva Martin - Fellow student, NMU
Alex Salfai - Geomatics student, NMU

Other Contributors

Elizabeth Durfee, Michigan Sea Grant Extension/Coastal Management Fellow
Tiina Harris, City of Marquette Arts and Culture Division
Kay Hiebel, Executive Director - Marquette Regional History Center
Mona Lang, Executive Director - Marquette Downtown Development Authority
William Vajda, City Manager (2010-2015)
Tom Tourville, Chairman Board of Light & Power (2017)
Jenn Hill, Climate Adaptation Task Force
Marquette County - Planning Office

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RUNNING TO THE COVE. BY DAVEY ROCKWOOD. ALL RIGHTS RESERVED.

There are two primary choices in life: to accept conditions as they exist, or accept the responsibility for changing them.

- Denis Waitley, author and keynote speaker



The Marquette Commons and Saturday farmer's market are seen in the photo above, as well the downtown Marq-Tran transit facility, and a portion of the downtown bike path (both at far right). All of these facilities were built since the last update of the Community Master Plan, providing for this graphic snapshot of the effect of change, which captures a sense of the dynamic forces which are constantly changing the physical, social, and economic landscapes of the City.

An Updated Master Plan for the 21st Century

This is a critical time in the evolution of the City of Marquette. If you are reading this you are likely to have a role to play in that evolution. As Marquette approaches a century and a half of incorporation (in 2021), the City is facing unique challenges brought on by urban growth, a large population reaching retirement age, changing preferences for ways to live and travel, rapid technological advances, shifting economic ground, and climate change. Comprehensively, these challenges for us include maintaining a City that has attractive neighborhoods, affordable housing options, many ways to safely travel, a flourishing natural environment, and a healthy business climate. City planning is a balancing act of short-term and long-term concerns, public interests and business interests, public safety and municipal budgets, water quality, waste management, and public recreation amenities. We plan in order to create a balance in the community that serves the public well.

The Marquette City Planning Commission followed a comprehensive planning process in developing this Community Master Plan, to discover how Marquetters are faring today and to ensure that we can improve their lives and businesses over the next 20 years, and to maintain the quality place Marquette residents want to live in today and in 2035.

This planning effort builds upon the City's extensive history of public planning efforts. This master plan considers extensive data and policy information, public opinions gathered, accomplishments and shortcomings of the previous Community Master Plan, and emerging issues. A set of prioritized recommendations for the next twenty years has been developed through this process, and is presented in the following *Master Plan Recommendations* chapter. This document replaces the Community Master Plan adopted in 2004. It is not merely an update to what was included in that Plan, but has been extensively re-written and this Plan has a new, more user-friendly format that leverages the conveniences of the digital age.

This Community Master Plan (CMP) document consists of three major sections:

- the **Handbook**, which encompasses this summary information chapter; the *Vision, Recommendations, and Implementation chapter*; and *Master Land Use and Zoning Plan* chapter.
- the **Factbook**, which presents information about the most important areas of general concern for City of Marquette residents and businesses at this time in our story, in nine chapters. Recommendations were developed for each chapter.
- and **Appendices**, which provide data and more detailed information relevant to the general information presented in the Factbook section on the CMP.

The handbook can be used as a stand-alone print document for easy and inexpensive distribution, while the entire document will be available to the public at City Hall and on the City website, and will be cataloged at the Peter White Public Library and the Lydia Olsen Library (Northern Michigan University).

Purpose of the Plan

The Community Master Plan is primary guidance for strategically managing change and opportunities within the broad realm of urban affairs. It is grounded in the data, observations, and community preferences of the present time, but it speaks to the future. The Master Plan essentially identifies the gap between where we are as a community and where we want to go (as expressed in the Vision Statement), and provides recommendations on how to bridge the gap. The recommendations of the Master Plan follow from the Vision Statement, and it's goals and objectives are clear and manageable. Recommendations are formulated to implement the identified initiatives within immediate, short-term, and long-term time horizons, based on analysis by the Planning Commission.

This is not a "shelf document." The Community Master Plan is used by the Planning Commission on an ongoing basis as a reference in consideration of a variety of issues that require action by the board, such as re-zoning requests, conditional land-use permits, and site plan reviews. It is also the basis of the Zoning Ordinance and Waterfront Form-based Codes. In Michigan, a municipality may not adopt a Zoning Ordinance without an adopted Master Plan, as the legally enforceable provisions of the ordinance are intended to be based on the community preferences documented in the Plan. For example, property maintenance codes previously adopted by City of Marquette were directly supported by survey data gathered during the last revision of the Master Plan in 2004.

Marquette is presently a small town in a rural area, but it may not remain so for much longer. In fact, Marquette could grow substantially depending upon how trends including large-scale economics and climate change develop, and/or based on its own successes and failures, as well as unforeseen events. Regardless, there will be many complex problems to solve over time, and the Master Plan is the key resource that City officials and the public can use to steadily advance the community towards it's visionary future. The Community Master Plan is a living document that will be amended periodically, and updated thoroughly at least every ten years, to reflect changing circumstances.

Vision Statement

The City of Marquette is the Superior location to live, learn, work, and enjoy life!

Marquette achieves this through the following goals:

- Fostering a forward-thinking community that is inclusive to people of all ages, abilities and financial status.
- Improving quality of life through continuing improvement in education, health care, civic engagement, employment opportunities, arts and culture, and recreation.
- Nurturing strong participation in all aspects of its community.
- Protecting its natural assets and amenities, particularly Lake Superior and it's four-season climate.
- Nurturing a "green" economy, promoting partnerships and entrepreneurship, maximizing local talent and goods.
- Strengthening its position as a hub for regional food production/distribution and other business transactions.
- Improving continuously on its status as a unique tourist destination.
- Maintaining a safe, multi-modal transportation system that balances the needs of work and play while conserving natural features.
- Emphasizing the safety of the most vulnerable transportation system users - pedestrians and cyclists – is prioritized.
- Implementing a downtown transit route with several sheltered, marked stops facilitates car-free travel and reducing parking demand in the City's commercial center.
- Preserving neighborhoods, historic areas, and Lake Superior viewsheds; and conserving undeveloped land, public space, waterfront property and natural features along inland waterways.
- Emphasizing mixed-use and compact downtown development.
- Providing universal access to the built environment through ordinance requirements.
- Valuing the opportunities of its natural assets.
- Interpreting Marquette for residents and visitors, through various means such as signs, plaques, and QR codes.

The development of the Vision Statement and goals involved extensive collaboration between the Planning Commission and members of the public, during the summer and fall of 2012. The process is explained in Appendix A-Public Involvement. The goals are to be achieved through recommendations which have been developed for each Chapter of the Factbook portion of the Plan, and which are summarized in the following section.

Master Plan Recommendations Chapter 2



Introduction

In order to ensure that the Community Master Plan is a useful document, it is necessary to aggregate its recommendations and outline a plan for implementation that will assist in the prioritization and fulfillment of the many recommendations presented. While the Master Plan may be seen primarily as a tool for City leaders, its implementation requires commitment and involvement from the entire community over a lengthy period of time. This chapter will outline the recommendations from each chapter of the Factbook - and identify the preferred timeframes for their completion - in order to help direct the implementation of the new Master Plan. Also in this chapter there will be a review of progress made since the adoption of the last Master Plan in 2004.

This chapter also includes an important section regarding the Capital Improvements Plan, which summarizes the six primary categories of City of Marquette owned-and-operated infrastructure assets, plus the buildings and grounds owned by the City, and plans for the general maintenance and improvement of these systems.

Promotion of Master Plan Recommendations

In addition to the many detailed recommendations outlined in the following Implementation Strategies section, there are a number of general measures that must be followed to ensure successful implementation of new Community Master Plan:

- Use the Master Plan as a primary resource – actively seek ways to promote projects that are in accordance with the plan
- Promote community understanding of the new plan
- Update City policies and regulations to reflect the Master Plan's vision
- Partner with adjacent Townships and key community stakeholders (e.g. the DDA, University, and Hospital) to ensure consistency between individual master plans

Progress During the Past Decade

The 2004 CMP recommended a variety of projects and programs to be undertaken by the City and community partners in order to achieve stated goals. A summary of the progress made on these action items is presented in Table 2.1 below. Some of the most noteworthy accomplishments following the 2004 CMP included:

- Construction of the roundabout at S. Front Street and US-41/M-28.
- Establishment of a comprehensive urban forestry program.

- Development of the linear park (multi-use path) along the abandoned railroad corridor south of W. Washington St.

Table 2.1: Progress since 2004 Master Plan

Project outlined in 2004 Master Plan	Description	Action Category	Current Status
Community Wide			
Community Design Standards	Establish design standards, which are locally based and reflect Marquette's natural and architectural character	Immediate	City Engineering Standards **Completed**
Community Entrance Corridor / U.S.41 South	Develop design guidelines and a corridor redevelopment plan	Immediate	**Partially Completed** via Form-based Code
Sensitive Development Regulations	Establish regulations, which manage stormwater runoff, protect water quality, steep slopes, and woodlands	Immediate	In Progress
Wayfinding System	Establish a community-wide wayfinding system to replace the current city directional community facility signage	Immediate	Not Started
Development of "Mature" Housing	Encourage development of higher density housing for mature households (55+) years in close proximity to downtown and established neighborhoods	Short Term	Partially Completed
Expansion of Historic Districts	Expand National Register of Historic Places districts in the downtown and south Marquette neighborhood	Short Term	Not Started
Neighborhood Associations	Provide technical advice to establish neighborhood associations	Short Term	Not Started
Parking Strategies	Reevaluate parking strategies to encourage additional on-street parking particularly in the Downtown area	Short Term	In Progress
Urban Forestry Program	Establish a comprehensive forestry management and replanting program.	Short Term	Complete
Greenway System	Develop a community-wide greenway system incorporating non-motorized pathways and connections	Long Term	In Progress
Economic			
Brownfield Redevelopment	Continue to implement projects that utilize former brownfields for tax revenue producing economic development projects	Immediate	In Progress
Downtown Zoning Provisions	Amend the zoning ordinance to regulate the expanse of professional offices and service businesses on the first floor of downtown buildings.	Immediate	Complete

Non-Service Sector Strategy	Focus recruitment of new business on telecommunication, software development, internet, and biotechnology uses	Immediate	In Progress
Orphanage Property	Promote adaptive reuse of the property for housing	Immediate	Not Started
Soo Line "Roundhouse" Property	Redevelop the "Roundhouse" property as a mixed density residential development	Immediate	Not Started
South Rail Yard Redevelopment	Redevelop the Lower Harbor area for a mix of commercial, residential, and open space uses	Immediate	In Progress
Downtown Revitalization	Continuation of the DDA's efforts to revitalize the downtown utilizing financial incentive programs, and technical assistance	Short Term	In Progress
Iron Bay Business Park property	Continue expansion and sale of properties within the industrial park	Short Term	Partially Completed
Eco-Tourism and Sport-Tourism Program	Develop a eco-tourism and sport-tourism program in conjunction with the Lake Superior Partnership	Long Term	In Progress
Neighborhood			
Neighborhood Conservation	Establishment of Rental Housing Inspection program	Short Term	Complete
Neighborhood Preservation	Designation of historic districts or enactment of historic overlay provisions which promote sensitive design and rehabilitation	Short Term	Not Started
Neighborhood Rehabilitation	Utilize state and federal programs to provide lower interest financing and grants for housing rehabilitation	Short Term	In Progress
Redevelopment of Intersections near NMU	Redesign to allow traffic circulation around the University	Short Term	In Progress
Traffic			
US-41 / Front St. Intersection	Modify the intersection to include either a roundabout or a "T" intersection.	Immediate	Complete
Marquette "Street Design" Standards	Utilize the street design standards for new street construction or major reconstruction of existing streets where curb removal is a component	Short Term	In Progress
Seventh Street Connection to Business 41	Extend to improve north-south access	Immediate	Complete
McClellan Avenue Extension	Extend McClellan Avenue to Wright Street	Immediate	Complete
South East-West Connection	Extend M-554 into Marquette Township	Long Term	Not Started
Kaye / Fair Avenue	Complete the Kaye / Fair Avenue connections	Short Term	Not Started

Lakeshore Boulevard	Redesign Lakeshore Boulevard using "parkway" design standards	Immediate	New Design Complete
McClellan Avenue Redesign	Boulevard with a median McClellan Avenue between M-554 and Grove Street	Short Term	Not Started
Reconfiguration of Roadways	Implement recommended roadway design changes (reduced travel lanes, reduced pavement width, additional on-street parking, intersection controls) as roads are considered for redesign or maintenance	Immediate	In Progress
Traffic Calming	Identify areas to implement traffic calming mechanisms as City roads are considered for redesign or maintenance	Immediate	In Progress
Walkability			
Linear Park on Railroad Property	Develop a linear park on the Washington Street railroad corridor	Immediate	Complete
All-Season Connections	Maintain all-season non-motorized connections to neighborhoods and community facilities.	Short Term	In Progress
All-Season Access	Provide all-season access along the Lake Superior shoreline	Short Term	In Progress
Neighborhood Plans	Develop neighborhood specific walkability plans, which include identification of projects and estimated cost of project implementation.	Short Term	In Progress
Integration with Traffic Enhancements	Integrate Citywide walkability concepts into road redesign or maintenance projects	Immediate	In Progress
Winter City			
On-street Parking	Develop a parking system that would allow for on-street parking during winter season.	Short Term	Not Started
Winter Recreation Opportunities	Encourage and financially support outdoor winter recreation opportunities	Short Term	In Progress
Land Use			
McClellan Extension Design Guidelines	Creation of design and development guidelines for commercial and residential development	Immediate	Complete
Neighborhood Retail	Amend the zoning ordinance to allow for the introduction of limited, neighborhood based retail uses.	Short Term	Not Started
Innovative Housing	Modify zoning provisions to allow for a diversity of housing types, densities, and mixed uses.	Immediate	Complete
Night Sky Provisions	Incorporate within the zoning ordinance "Night Sky" provisions which regulate evening outdoor light pollution.	Immediate	Partially Complete

Recommendations and Implementation

The following table outlines the projects needed to implement Marquette's Community Master Plan. Determination of priorities is expressed according to "action categories" that are based on the item being addressed within defined time parameters:

1=Short Term (0-2 years); **2=Mid-Term** (2-5 years); **3=Long Term** (5+ years)

These priorities will be revised over time based on availability of funding, staff, and/or other resources needed to implement the project or program.

A summary of the progress made on these action items between summer 2015 and the fall of 2018 is presented in Table J-1 in Appendix J (CMP Amendments adopted in 2018).

Table 2.2: Community Master Plan Recommendations

Recommendation Topic	Summary Description and/or Specific Recommendations	Action Category
Future Land Use Recommendations	**Chapter 3** Recommendations for Land Use and Proposed Zoning throughout the City.	See Chapter 3 for details
Demographics and Housing	**Chapter 4**	
Increase housing availability	Facilitate and "incentivize" the development of housing near downtown, as well as more working-class housing options.	2
Increase transportation options and accessibility of network	Develop more transit services and facilities; expand non-motorized transportation options; and emphasize universal access.	1
Economic development planning inclusive of senior citizens	Include senior citizens in economic development planning, as they will be a more significant portion of entrepreneurs going forward.	2
Public safety focus on seniors	Enhance attention to senior citizens in public safety work. Public safety - promote community safety organizations.	2
Continue/expand programming for seniors	Continue and possibly expand multi-generation community facilities and civically-sponsored programs.	2
Rental inspection program amendment for parking areas	Revise rental inspection application/process to require that zoning standards for hard surface parking areas be a required element for approval.	3
Code enforcement for property maintenance	Continue code enforcement for property maintenance and improve on ordinances.	2
Neighborhood associations	Provide technical support in the establishment of Neighborhood Associations.	2
Student housing	Increase on-campus student housing.	3
Green housing	Encourage the construction of sustainable, energy-efficient homes/buildings.	2

Housing options	Encourage a diversity of new housing options.	1
Infill development incentives	Create incentives for the development of affordable, sustainable, infill housing projects, as alternatives to "greenfield" development.	2
Historic districts	Support the creation of historic overlay districts.	2
Preservation easements	Assist with education regarding Preservation Easements.	2
Placemaking	Engage in Placemaking activities that support neighborhoods.	1
Economic Development	**Chapter 5**	See Chapter 5 for details
Transportation	**Chapter 6**	
Street Design Guidelines	Continue to use and refine design guidelines for all the major types of roadways within the city (including specifications for configuration of travel lanes, reduction in lane width and lanes wherever feasible, incorporation of on-street parking, and the enhancement of existing intersection signals and controls).	2
Snow Management	Re-evaluate snow management procedures, to include hosting an annual Snow Summit, performing cost analysis for center-push vs side push plowing and snow removal activities, re-evaluating the ordinance requiring sidewalk snow removal, and consideration for the creative use of removed snow.	2
Raise and move Lakeshore Blvd.	Raise Lakeshore Boulevard and move it inland, and armor the shore to protect the road, as outlined in the Lakeshore Boulevard and Lake Superior Restoration Project final recommendations that were completed in early 2014.	1
Kaye-Fair connection	Extend Kaye Avenue to connect with Fair Avenue.	2
Division St. extension	Extend Division St. – The extension of Division St. west into Marquette Township would provide a future east-west connection between jurisdictions.	3
Truck routes	Specific truck routes should be designated to route traffic along the major collectors, such as Wright St. and McClellan Ave., rather than through residential areas.	1
Walkability improvements	Continue improving walkability Upgrade intersection facilities (crosswalks, curb ramps, walk signals), add sidewalks, and expand bicycle facilities.	1

Urban transit service	Improve transit service in the City, by: 1) Staying involved with the planning process outlined for the creation of a MarqTran *Human Service Coordination Plan* ; 2) focusing on public transportation and mobility management in community planning, decision-making and marketing; 3) by facilitating partnerships between institutions that utilize transit services, to creatively employ underutilized transit resources throughout the community.	1
Neighborhood-scale planning	Support neighborhood involvement and planning in transportation decisions.	2
Regional transportation improvements	To improve regional transportation: 1) Support research into the redevelopment of railroad and intermodal/rail facilities in Marquette County and across the Upper Peninsula, such as that which has been undertaken recently by Dr. Lautala of Michigan Tech. University.; 2) Support the implementation of a Customs Office in Marquette, to allow the port facilities to be upgraded to handle larger Great Lakes cruise ships and more diverse cargo; 3) Support efforts to improve the economic sustainability of the Sawyer International Airport.	2
Community Services	**Chapter 7**	
"Green" municipal facilities and operations	The City of Marquette should demonstrate "green" leadership in facilities operations, choosing options that are environmentally sound and otherwise sustainable, from materials recycling, to vehicle fleet management, to decisions regarding construction and re-construction.	2
Sidewalks and Paths	Funds should continue to be set aside, and areas near schools should be prioritized, to facilitate sidewalk and bike path maintenance and extensions. Seek *Safe Routes to Schools* funding for further enhancements to the pedestrian and bicycle network. A robust program of winter maintenance to keep pedestrian networks open is vital to a healthy, prosperous community.	1
Winter Focus	Decisions that affect municipal facilities and amenities should only be made with full consideration of winter, in order to maximize the quality of life and economic impacts of those decisions. Events and activities that help residents	2

	get outside during winter months should continue to be developed.	
Heartwood Forestland	Much of the NTN's South Trails network is on land that was part of the Heartwood Forestland property acquisition, and the disposition of this municipally-owned property in S. Marquette should be formally established by the adoption of a "sub-area plan" for use and management of the property, in order to guide future investment in the trails network.	2
Lower Harbor Ore Dock	If there are viable productive uses for the structure, the City should engage the public in visioning for of a broad spectrum of possible future uses, including as a public dock for large and small watercraft , and the "Botanical-Ecological Center" idea proposed in 2012 by a local group.	1
Natural Environment	**Chapter 8**	
Riparian Buffer Ordinance	The development of an ordinance to control stormwater runoff and sedimentation into streams by the use of riparian buffer zones is needed, as there are several streams in the City that collect stormwater runoff and drain into Lake Superior.	2
Watershed Residential Zoning	In order to help balance the need for new development with the need for resource protection, the Master Plan promotes the use of a new residential zoning designation called “Watershed Residential”. This type of residential land use is particularly relevant in the southern portion of the City where new development pressures threaten to degrade the existing natural resources. The regulation of development in these environmentally sensitive areas is in keeping with recommendations presented in the Whetstone Brook and Orianna Creek Watershed Management Plan.	2
Heartwood Forestland	The City should, with maximum expediency, undertake and complete a formal determination process for land uses and conservation priorities for the former Heartwood Forestland property.	2
Alternative Energy Production Systems	The City should create land development ordinance provisions to permit the use of alternative energy production systems within the city limits, for both small residential and commercial applications, as well as larger systems for industrial applications.	2
Sustainability and	Thinking and acting with economic, social, and	2

Systems Analysis	environmental concerns all taken into consideration is a responsible foundation for decision making relevant to sustainability that should be further developed into a practice for outcomes that result in the actual sustainability of our environmental assets.	
Waterfront Activity	**Chapter 9**	
Utilize *Smart Growth Coastal and Waterfront Elements*	Smart Growth fosters sustainable land use and development, and provides guidance for communities to grow in ways that are compatible with their natural assets, creating high-quality places for residents, visitors, and businesses.	2
Establish Innovative Zoning Districts	Where conventional, use-based zoning is not conducive to meeting the community vision for a walkable, well-connected waterfront and downtown, it may be necessary to amend a zoning ordinance. Establishing/expanding form-based code districts that regulate structure, design, and form over land use provides greater flexibility with regard to creating a pedestrian-oriented, mixed use waterfront district that protect view-sheds, waterfront uses, public access, and water resources.	1
Regulate Land Use along Waterfront Roads	Permitting private development on the inland side and public use on the water side of a road, to maintain viewsheds and retain access to the waterfront.	1
Engage Community in Planning and Visioning	Engaging the community and getting citizens and professionals together can lead to an effective waterfront visioning and strategic planning process.	2
Utilize *Placemaking*	Capitalize on the economic value of "placemaking" - planning, designing and managing public spaces to meet the needs and desires of residents and visitors and establish a common vision - to increase both private development and public access to the waterfront, as well as to create a more walkable downtown that embraces water resources.	2
Acquire Coast Guard Light House Reserve	The City should continue to pursue transfer of this property from the federal government to municipal control, provided ongoing environmental	2

	assessments of the property reveal no significant contamination.	
Public Health	**Chapter 10**	
Built Environment	Apply smart growth principles to decisions related to land development and planning, in order to increase physical activity via active transportation (walking and biking between destinations). The following tenets of smart growth indirectly address health via supporting a robust built environment:	1
Smart Growth	Mix land uses; take advantage of compact building design; strengthen and direct development towards existing communities; and foster distinctive, attractive communities with a strong sense of place.	
Encourage development in urbanized areas	Create/maintain incentives for new development/re-development in developed areas, including tax- increment financing and assistance with tax abatement program applications.	2
Follow Complete Streets Guidance	City staff should develop all street rehabilitation and reconstruction plans following the Complete Streets Policy and Guiding Principles that were adopted as a resolution by the City in 2011.	2
Routes and Wayfinding	Develop a comprehensive network of on-street bicycle and pedestrian facilities connected to the multiuse path system, including easily-identified wayfinding guidance (signs and markers), to connect our neighborhoods to schools, parks, workplaces, shopping and other destinations.	2
Safe Routes to School	Coordinate with schools for SR2S grant funds, and otherwise prioritize walking and biking to and from schools.	1
Open/Green Spaces	Promote existing community parks, beaches, paths, forests, etc., by:	2
	Raising awareness about ways to enjoy the outdoors all year round, as the Arts and Culture Center raises awareness about art in the community.	
	Supporting efforts to provide exercise facilities within many public parks.	
	Ensuring public property has plentiful tree canopy to create attractive, shaded space that is inviting to the public and ecologically valuable.	
Planning and Policy	Integrate land-use, transportation, community design and economic development planning with public health planning to increase active	2

	transportation and other physical activity.	
Community Food Systems	Craft and/or amending guiding and regulatory documents so the community can support the strengthening of the local food system, after evaluating existing policies and regulations for obstacles to that support:	2
Amend Guidance and/or Regulation	Support urban food production through home gardens, community gardens, and land uses allowing for urban market/commercial farm use.	
	Develop policies/ordinances that could allow the interim use of public land for gardens, agricultural practices, or to be landscaped with edible vegetation.	
	Create more opportunities for access to healthy foods, by allowing temporary sales of garden produce in residential areas; through expanded land uses for small food retail stores; and by improved transit.	
	Provide adequate open space for neighborhood vegetable gardens.	
	Support routine consideration of health in public decision-making by embracing a "Health in All Policies" approach to “embedding” or “institutionalizing” health policy within existing and new structures and processes of government.	
Resource Preservation and Protection	Take advantage of opportunities to collaborate with public, private, and nonprofit entities to preserve agricultural and environmental resources and protect ecologically critical and fragile areas.	1
Arts and Culture	**Chapter 11**	
Economic Development Planning	Consult the Arts and Culture Master Plan regarding questions or concerns about relevant issues. Reference to A&C Master Plan	2
Heritage	**Chapter 12**	
Interpretation	Interpretation of our heritage assets should be a high priority for the City and DDA.	2
Historic Preservation	See Ch.4 (p.4-29) for historic housing [preservation] recommendations	2

Funding Sources

The following tables provide a variety of potential funding sources at the Federal, State, and Local levels. While funding sources are continually changing and becoming available, this partial list provides current resources that could assist in the implementation of the Master Plan recommendations.

The Capital Improvements Plan

Capital Improvements Program
A long-range, multi-year Capital Improvements Program guides investments in the physical infrastructure of the community, and a summary of the Program is presented in Appendix I.

Progress During the Past Decade

Prior to presenting the recommendations for the years 2015-2035, a review of progress made since the adoption of the last Master Plan in 2004 is in order. The 2004 Plan recommended a variety of projects and programs to be undertaken by the City and community partners in order to achieve stated goals. A summary of the progress made to date on these action items is presented in Table 2.1 on the following page. Some of the most noteworthy accomplishments include:

- Construction of the roundabout at S. Front Street and US-41/M-28.
- Establishment of a comprehensive urban forestry program.
- Development of the linear park (multi-use path) along the abandoned railroad corridor south of W. Washington St.

Table 2.1: Progress since 2004 Master Plan

Project outlined in 2004 Master Plan	Description	Action Category	Current Status
Community Wide			
Community Design Standards	Establish design standards, which are locally based and reflect Marquette's natural and architectural character	Immediate	Not Started
Community Entrance Corridor / U.S.41 South	Develop design guidelines and a corridor redevelopment plan	Immediate	Partially Completed
Sensitive Development Regulations	Establish regulations, which manage stormwater runoff, protect water quality, steep slopes, and woodlands	Immediate	Not Started
Wayfinding System	Establish a community-wide wayfinding system to replace the current city directional community facility signage	Immediate	Not Started
Development of "Mature" Housing	Encourage development of higher density housing for mature households (55+) years in close proximity to downtown and established neighborhoods	Short Term	In Progress
Expansion of Historic Districts	Expand National Register of Historic Places districts in the downtown and south Marquette neighborhood	Short Term	Not Started

Neighborhood Associations	Provide technical advice to establish neighborhood associations	Short Term	Not Started
Parking Strategies	Reevaluate parking strategies to encourage additional on-street parking particularly in the Downtown area	Short Term	In Progress
Urban Forestry Program	Establish a comprehensive forestry management and replanting program.	Short Term	Complete
Greenway System	Develop a community-wide greenway system incorporating non-motorized pathways and connections	Long Term	In Progress
Economic			
Brownfield Redevelopment	Continue to implement projects that utilize former brownfields for tax revenue producing economic development projects	Immediate	In Progress
Downtown Zoning Provisions	Amend the zoning ordinance to regulate the expanse of professional offices and service businesses on the first floor of downtown buildings.	Immediate	Complete
Non-Service Sector Strategy	Focus recruitment of new business on telecommunication, software development, internet, and biotechnology uses	Immediate	In Progress
Orphanage Property	Promote adaptive reuse of the property for housing	Immediate	Not Started
Soo Line "Roundhouse" Property	Redevelop the "Roundhouse" property as a mixed density residential development	Immediate	Not Started
South Rail Yard Redevelopment	Redevelop the Lower Harbor area for a mix of commercial, residential, and open space uses	Immediate	In Progress
Downtown Revitalization	Continuation of the DDA's efforts to revitalize the downtown utilizing financial incentive programs, and technical assistance	Short Term	In Progress
Iron Bay Redevelopment "Cleveland Cliffs" property	Continue expansion and sale of properties within the industrial park	Short Term	Complete
Eco-Tourism and Sport-Tourism Program	Develop a eco-tourism and sport-tourism program in conjunction with the Lake Superior Partnership	Long Term	Not Started
Neighborhood			
Neighborhood Conservation	Establishment of Rental Housing Inspection program	Short Term	Complete
Neighborhood Preservation	Designation of historic districts or enactment of historic overlay provisions which promote sensitive design and rehabilitation	Short Term	Not Started
Neighborhood Rehabilitation	Utilize state and federal programs to provide lower interest financing and grants for housing	Short Term	In Progress

	rehabilitation		
Redevelopment of Intersections near NMU	Redesign to allow traffic circulation around the University	Short Term	In Progress
Traffic			
US-41 / Front St. Intersection	Modify the intersection to include either a roundabout or a "T" intersection.	Immediate	Complete
Marquette "Street Design" Standards	Utilize the street design standards for new street construction or major reconstruction of existing streets where curb removal is a component	Short Term	In Progress
Seventh Street Connection to Business 41	Extend to improve north-south access	Immediate	Complete
McClellan Avenue Extension	Extend McClellan Avenue to Wright Street	Immediate	Complete
South East-West Connection	Extend M-554 into Marquette Township	Long Term	Not Started
Kaye / Fair Avenue	Complete the Kaye / Fair Avenue connections	Short Term	Not Started
Lakeshore Boulevard	Redesign Lakeshore Boulevard using "parkway" design standards	Immediate	New Design Complete
McClellan Avenue Redesign	Boulevard with a median McClellan Avenue between M-554 and Grove Street	Short Term	Complete
Reconfiguration of Roadways	Implement recommended roadway design changes (reduced travel lanes, reduced pavement width, additional on-street parking, intersection controls) as roads are considered for redesign or maintenance	Immediate	In Progress
Traffic Calming	Identify areas to implement traffic calming mechanisms as City roads are considered for redesign or maintenance	Immediate	In Progress
Walkability			
Linear Park on Railroad Property	Develop a linear park on the Washington Street railroad corridor	Immediate	Complete
All-Season Connections	Maintain all-season non-motorized connections to neighborhoods and community facilities.	Short Term	In Progress
All-Season Access	Provide all-season access along the Lake Superior shoreline	Short Term	In Progress
Neighborhood Plans	Develop neighborhood specific walkability plans, which include identification of projects and estimated cost of project implementation.	Short Term	Not Started
Integration with Traffic Enhancements	Integrate Citywide walkability concepts into road redesign or maintenance projects	Immediate	In Progress

Winter City			
On-street Parking	Develop a parking system that would allow for on-street parking during winter season.	Short Term	Not Started
Winter Recreation Opportunities	Encourage and financially support outdoor winter recreation opportunities	Short Term	In Progress
Land Use			
McClellan Extension Design Guidelines	Creation of design and development guidelines for commercial and residential development	Immediate	Not Started
Neighborhood Retail	Amend the zoning ordinance to allow for the introduction of limited, neighborhood based retail uses.	Short Term	Not Started
Innovative Housing	Modify zoning provisions to allow for a diversity of housing types, densities, and mixed uses.	Immediate	Complete
Night Sky Provisions	Incorporate within the zoning ordinance "Night Sky" provisions which regulate evening outdoor light pollution.	Immediate	Partially Complete

Annual Street Reconstruction Projects from the Capital Improvements Plan

In addition to the recommendations made in the CMP, the Planning Commission has review authority over the street/utility reconstruction portion of the CIP (via section 7.2 (b) of the City Charter, and P.A. 33 of 2008), and each year it makes recommendations for annual street reconstruction projects funded through the six-year Capital Outlay Budget.

A long-range Capital Improvements Plan (CIP) for infrastructure improvements, including a multi-year "program of improvements," guides investments in the physical infrastructure of the community, and a summary of the present CIP is presented in Appendix F. The current process for this element of the CIP follows:

- The City Engineer recommends implementation of specific street/utility reconstruction and Street Improvement Maintenance Projects (SIMP) projects listed in the CIP to the Community Development Director and City Manager;
- A suggested budget cap is applied by the Manager for these projects;
- The City Engineer creates a new "budget-constrained" list of recommended projects and presents the two lists of projects (the original and the "budget constrained" lists) to the Planning Commission for their recommendation;
- The Planning Commission makes a recommendation for the implementation of street/utility reconstruction and SIMP projects, within or above the annual budget cap.

Funding Sources

The following tables provide a variety of potential funding sources at the Federal, State, and Local levels. While funding sources are continually changing and becoming available, this partial list provides current resources that could assist in the implementation of the Master Plan recommendations.

Funding Source	Program Name	Program Description
Federal	Community Development Block Grant Program (CDBG)	Program replaces categorical grants. Eligible projects include property acquisition, installation or repair of public facilities, building rehab and preservation, and planning activities.
Federal	Economic Development Administration; Public Works and Development Facilities Assistance	Project grants to support the construction or rehabilitation of essential public infrastructure and development facilities necessary to generate higher-skill, higher-wage jobs and private investment. http://www.cfda.gov/static/11300.htm
Federal	Section 202 Housing Program	Loan Programs to provide funding for senior citizen and handicapped housing. Either for reconstruction or new built.
Federal	MAP-21 (Moving Ahead for Progress in the 21st Century Act), formerly TEA21	Federal programs for enhancements to transportation systems.
Federal	Rural Economic and Community Development (RECD) (formerly Farmers Home Administration)	Loans and grants for infrastructure programs in rural communities.
Federal	Urban and Community Forestry Program	Assists State Foresters, equivalent State agencies, interested members of the public and private nonprofit organizations, in urban and community forestry programs in cities and communities. http://www.cfda.gov/static/10675.htm
Federal	Forest Legacy Program	Uses conservation easements and other mechanisms to protect and conserve environmentally important forest areas that are threatened by conversion to nonforest uses. http://www.cfda.gov/static/10676.htm
Federal	Community Facilities Loans and Grants	Loans and grants to construct, enlarge, extend, or otherwise improve community facilities providing essential services to rural residents in communities with populations under 20,000. http://www.cfda.gov/static/10766.htm
Federal	Business and Industry Loans	Assistance in obtaining quality loans for the purpose of improving, developing, or financing business, industry, and employment. http://www.cfda.gov/static/10768.htm
Federal	Resource Conservation and Development	Advisory services and counseling to assist local units of government and local nonprofit organizations in rural areas to plan, develop and carry out programs for resource conservation and development. http://www.cfda.gov/static/10901.htm

Federal	Public Telecommunications Facilities / Planning	Planning grants and matching construction grants to assist in the planning, acquisition, installation and modernization of public telecommunications facilities. http://www.cfda.gov/static/11550.htm
Federal	Broadband Technology Opportunities Program	Project grants to promote the widespread use and availability of advanced telecommunications and information technologies in the public and nonprofit sectors. http://www.cfda.gov/static/11552.htm
Federal	Community Development Block Grant / Section 108 Loan Guarantees	Loan guarantees to provide a source of financing for economic development, housing rehabilitation, public facilities, and large scale physical development projects. http://www.cfda.gov/static/14248.htm
Federal	Healthy Homes Demonstration Grants	Project grants to develop, demonstrate, and promote cost-effective, preventive measures to correct multiple safety and health hazards in the home environment that produce serious diseases and injuries in children of low-income families. http://www.cfda.gov/static/14901.htm
Federal	Indian Arts and Crafts Development	Use of property, facilities, and equipment; advisory services and counseling; and the investigation of complaints. Intends to encourage and promote the development of American Indian and Alaska Native arts and crafts. http://www.cfda.gov/static/15850.htm
Federal	Historic Preservation Funds	Matching grants to States for the identification, evaluation, and protection of historic properties; expansion of the National Register of Historic Places; and various preservation activities. http://www.cfda.gov/static/15904.htm
Federal	National Register of Historic Places	Advisory services and counseling to help expand and maintain the National Register of Historic Places for planning, preservation, research, public education and tourism efforts. http://www.cfda.gov/static/15914.htm
Federal	Hydropower Recreation Assistance	Advisory services and counseling regarding applications for hydropower licensing; meeting present and future outdoor recreation needs; maintaining and enhancing riparian areas. http://www.cfda.gov/static/15927.htm
Federal	Urban Park and Recreation Recovery Program; still exists but not currently accepting applications for grants: OMB must renew before 10/31/2013	Grants for the rehabilitation of recreation areas and facilities, demonstration of innovative approaches to improve park system management and recreation opportunities, and development of improved recreation planning. http://www.cfda.gov/static/15919.htm

Federal	National Maritime Heritage Grants	Funds Maritime Heritage Preservation Projects and Maritime Heritage Education Projects designed to preserve historic maritime resources and increase public awareness and appreciation for the maritime heritage of the United States. http://www.cfda.gov/static/15925.htm
Federal	Community Development Financial Institutions Program	Project grants to promote economic revitalization and community development through investment in and assistance to community development financial institutions. http://www.cfda.gov/static/21020.htm
Federal	Promotion of the Arts - Challenge America Grants	Grants to benefit people in underserved areas or whose access to the arts is limited by factors such as age, disability, ethnicity, educational or economic level. http://www.cfda.gov/static/45027.htm
Federal	Wetland Program Development Grants	Grants to build capacity to protect, manage and restore wetlands. Programs include (1) Developing a comprehensive wetland monitoring and assessment program; (2) improving the effectiveness of compensatory mitigation; and (3) refining the protection of vulnerable wetlands and aquatic resources. http://www.cfda.gov/static/66461.htm
Federal	Browfield Revolving Loan Fund Grants	Revolving loan funds for Brownfield cleanups and financial assistance for a program of training and evaluation of training needs in the procedures for the handling and removal of hazardous waste substances. http://www.cfda.gov/static/66811.htm
Federal	Twenty-First Century Community Learning Centers	Formula grants to create community learning centers that provide academic enrichment opportunities for children, particularly those attending high-poverty and low-performing schools. http://www.cfda.gov/static/84287.htm
Federal	Urban Areas Security Initiative	Project grants to enhance State and local governments' ability to prepare for and respond to threat or incidents of terrorism. http://www.cfda.gov/static/97008.htm
State	Rehabilitation of Blighted Areas Act (Act 344, 1945)	Localities are permitted to develop plans and sell bonds for funding of rehabilitation projects to eliminate blighted areas.
State	Shopping Area Redevelopment Act (Act 120, 1961)	Permits renewal of principal shopping areas of a community with revenue bonds and special assessments.
State	Economic Development Corporation Act (Act 338, 1974)	Nonprofit EDC is created by community and may acquire land, construct buildings, and acquire equipment which it sells or leases to private industry.

State	Michigan Urban Land Assembly Act (Act 177, 1981)	Provides for a state loan fund to assist communities with high unemployment and demonstrating a shortage of industrial property in the acquisition of real property for economic development.
State	Michigan Strategic Fund Act (Act 272, 2013)	MEDA can make loans, financed by bonds, directly to municipalities or a DDA or EDC which can be used for street improvements, recreation facilities, and related costs.
State	The Local Development Financing Act (Act 281, 1986)	Can finance public facility improvements using tax increment financing, from revenues captured from increased value of any eligible property. Properties can include manufacturing type facilities.
Local	Special Assessments	Fees levied by a community within a district for the financing of a local improvement that is primarily of benefit to landowners who pay the assessment.
Local	General Obligation Bonds	Negotiable bonds issued by the community and payable from the levy of ad valorem taxes on all taxable property within the community. Backed by full-faith and credit of issuing jurisdiction.
Local	Revenue Bonds	Negotiable bonds issued by a community and payable only from the net revenues of the project being financed.

Federal	Twenty-First Century Community Learning Centers	Formula grants to create community learning centers that provide academic enrichment opportunities for children, particularly those attending high-poverty and low-performing schools. http://www.cfda.gov/static/84287.htm
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Photo by Cynthia DePetro

Introduction

The decisions a community makes regarding its land use policies is likely to have more impact on the general well-being of the community over time than any other component of the master planning process. The chosen pattern of land use, and the policies and ordinances that support those choices, together have numerous implications for housing and neighborhood quality, transportation options and traffic patterns, natural resource protection, economic development, and heritage preservation. The recommendations of this chapter have been based on community input, the goals of the Vision Statement, and the analysis of data and information presented in the *factbook* section of this document.

The most direct relationship this Master Plan has in determining local laws is between this chapter and the Zoning Ordinance, which is the law that most directly impacts land use. State law requires that municipalities have a Master Plan in place to guide the implementation of a zoning ordinance, thus the implementation of many aspects of the Community Master Plan (CMP) is carried out on an ongoing basis through the actions taken by staff, the Planning Commission, and the City Commission in compliance with the zoning ordinance. Other elements of the CMP are more conceptual and may be implemented in various ways by concerted efforts to accomplish projects and tasks that can be identified as goals, objectives or strategies of stated recommendations.

Nobody can predict what will happen in the next 20 years, and amendments to this document should be made to address changes that significantly alter the availability of services, traffic patterns, markets, surrounding land uses, and community goals. But, the recommendations of this chapter reflect goals, current land-use patterns, and good planning principles. The following are a summary of factors considered in developing the future land use map and the zoning plan.

Marquette's Land Use Pattern

The following is a brief synopsis of observed land use characteristics. Similar to many U.S. cities, Marquette has many single family neighborhoods radiating from a central commercial area built in congruence with natural features, primarily Lake Superior and the shallow central valley.

The oldest neighborhoods are directly north and south of the urban core, while mainly post-World War II housing stock is farther away from the core and to the west. Multi-family housing that was constructed as such is concentrated to the west and north of downtown Marquette, and on and near the NMU campus. There are also two high-rise apartment buildings near downtown (Snowberry Heights, Pine Ridge), which house several hundred residents. But, for all practical purposes multi-family housing is scattered throughout the city, due to both conditional use allowances for duplexes in single-family zoning districts, and more so due to the widespread conversion of single-family homes into multiple-unit rental apartments (up to four rental units per house).

Commercial development is concentrated downtown and along a few major thoroughfares and the highway corridor, with a mainly east-west orientation through the central area of the city's space. Commercial and residential uses can be compatible and complimentary, and mixing those uses is an age-old practice that can boost urban activity and walkability. Downtown Marquette and the N. Third St. corridor are two connected areas in the city in which there is a generally healthy mixing of residential and commercial land uses.

Heavy industries are fairly limited in Marquette. The two coal-fired power plants and hydroelectric works, and the transportation and loading of iron ore, are the two major heavy industries. Industrial uses are concentrated in the northern reaches of the city, although there is a fairly large industrial district directly west of downtown, a power plant on the south side of downtown, and a smaller industrial district was recently established in southwest Marquette, south of Pioneer Road. Light industrial land uses, which generally do not show up on the map of industrial activity are dispersed in commercial districts and the waterfront form-based code districts, as most of those uses are typical of traditional commerce districts.

There is extensive land dedicated to parks, beaches, and active recreation (e.g. ball-fields, golf, trails) throughout the City, much of it near L. Superior. Much undeveloped, forested land, and other land that has been challenging for development due to topography, is found surrounding the larger stream courses in S. Marquette. Also in S. Marquette, the State Department of Corrections (Marquette Branch Prison) owns a large amount of land adjacent to the prison and the Carp River. There is a large amount of land in the City limits that is owned by public schools, particularly Northern Michigan University, most of it in N. Marquette. Flood-control land (owned by the Board of Light and Power) is spread across northwest Marquette along the Dead River.

All of this municipal, state, and federal land, despite the current underlying zoning, is exempted from zoning to varying degrees by the state laws governing zoning controls.

Existing Land Activity - Overview

Figure 3.1, on page 3-3, displays existing land uses. To understand which land uses are actually being conducted in a given location, this Existing Land Activity Map is a useful tool. Table 3.1, on page 3-4 lists the approximate distribution of general activities by category. While zoning does help to direct the pattern of land use within a city, analyzing and mapping the current land activity paints a more realistic picture of how the land is actually being used. The uses are derived partially from property classifications for tax assessment purposes, and other categories are explained on page 3-4.

Figure 3.1: Existing Land Activity

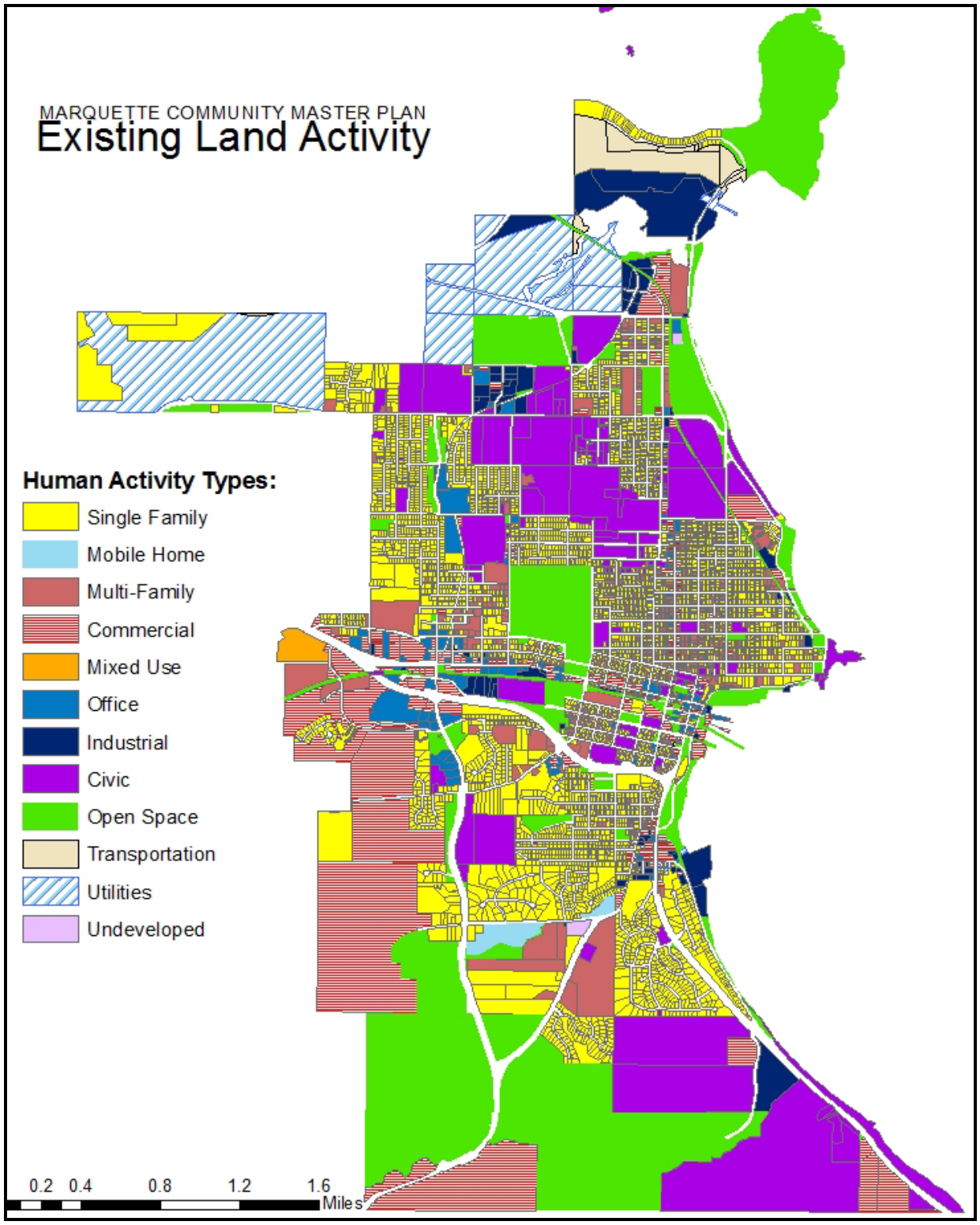


Table 3.1: Existing Land Activity Distribution

Existing Land Activity	Acres	Percent of Total Area
Single Family	1,567	24.3%
Mobile Home	30	0.5%
Multi-Family	348	5.4%
Commercial	802	12.4%
Mixed Use	30	0.5%
Office	129	2.0%
Industrial	249	3.9%
Civic	1,144	17.8%
Open Space	1,476	22.9%
Transportation	102	1.6%
Utilities	559	8.7%
Undeveloped	8	0.1%
Total	**6,445**	**100.0%**

For the City of Marquette, the largest discrepancies between land use and zoning are related to industrial and institutional land uses. While the zoning allocates 465 acres of industrial land use, only 249 acres are currently functioning in an industrial capacity. Many of the parcels that are currently zoned industrial are instead being used for civic/institutional purposes. In the categories of land activities "Civic" includes municipal, county, state, and federal government land (including public schools, cemeteries, and prison), private schools, hospital/health care facilities, and houses of worship. "Open Space" includes municipal land designated as park space, municipal and private land zoned as a conservation-recreation district, as well as other land that is in the Deferred Development zoning classification that has been developed previously but which has been serving as public open space. "Undeveloped" land consists mainly of vacant properties that are not currently developed but are in zoning districts where development is the likely outcome for the property.

Mixed-Use activity includes both commercial and residential uses on the same property, often in the same structure (with residential above commercial), as seen in some large downtown buildings and homes with ground-floor offices. Although single-family residential accurately includes properties with homes intended for single dwellings or duplexes (by permit process), the widespread conversion of single-family homes to rental properties has created what is essentially a great deal of multi-family housing within the single-family and general residential zoning districts as well.

Zoning and Existing Land Activity

It is important to understand the existing land activity data and zoning designations before discussing where Marquette should be headed from a land use planning perspective. While the zoning classifications simply represent the type of land use that is designated for each

area of the City, they do not necessarily reflect what has actually been developed or what activities are occurring in a specific area. For example, most of the NMU campus is currently in a residential zoning district, as allowed under conditional uses in the General Residential zoning district. And, there are cases where a land use exists that does not fit with the zoning due to historical uses that pre-date the ordinance but which have been allowed to continue under terms of ordinances, such as small commercial uses in residential areas.

Existing Zoning - Overview

Table 3.2, below, displays the spatial distribution of land as it is designated by zoning.

Table 3.2: Land in Existing Zoning Categories - 2014

Zoning District	Acres	Percent of Total Area
Chapter 80 – Zoning Ordinance	**7210.87**	**98.56%**
MHOD - Marquette General Hospital Overlay District	37.49	0.51%
CBD – Central Business District	48.24	0.66%
BC – Community Business District	71.12	0.97%
DD – Deferred Development	198.48	2.72%
BG – General Business District	285.68	3.91%
OS – Office District	329.18	4.51%
PUD – Planned Unit Development	422.78	5.79%
I – Industrial District	475.07	6.50%
RM – Multiple Family Residential District	626.04	8.57%
RS – Single Family Residential District	853.64	11.69%
RG – General Residential District	1828.22	25.03%
CR – Conservation and Recreation District	2021.92	27.68%
80.35 Marquette Downtown Waterfront Form-Based Code (DWFBC)	**37.09**	**0.51%**
G3 – General 3 Frontage	6.83	0.09
G5 – General 5 Frontage	12.37	0.17
NL – North Lakeshore Frontage	4.21	0.06
WWZ – Working Waterfront Zone	3.90	0.05
WF – Workshop Flex Frontage	1.24	0.02
F5 – Founder 5	3.68	0.05
Public Use Area	3.15	0.04
Future Row	1.72	0.02
80.36 South Marquette Waterfront Form-Based Code (SWFBC)	**68.36**	**0.93%**
TN-R – Traditional Neighborhood- Residential	5.77	0.08%
W-RC – Waterfront-Recreation Conservation	7.51	0.10%
W-MU – Waterfront-Mixed Use	9.18	0.13%
TN-CR – Traditional Neighborhood- Commercial Residential	9.69	0.13%
P-SD – Powerplant-Special District	14.45	0.20%
GC-MU – Gateway Corridor-Mixed Use	21.76	0.30%
Total	**7303.32**	**100.0%**

The zoning in the City of Marquette has been generally satisfactory to meet the goals of the community, with some exceptions. In terms of land-use changes that impact zoning, there has been a significant evolution of the employment base and land use in the past few decades, and that change has become manifested in a waterfront district that is now

dominated by recreational and residential uses, and a seemingly ever-increasing number of service-oriented businesses throughout the traditional commercial districts. Commercial districts are still focused in the City's geographic center - adjacent to Washington St., U.S.41-M28, and downtown - and in the N. Third St. corridor. Smaller districts of office and community businesses uses are located throughout the City, while home-based offices have become much more common and in many cases are almost completely inconspicuous.

Aside from the Municipal Power Plant on Lake St., heavy industry no longer is active around the downtown, and remnants of the industrial past are now mainly preserved for heritage reasons and/or aesthetics. Industrial zoning is needed less than in the past, as has been demonstrated by unfulfilled vacancies in "industrial parks" that were created relatively recently. Commercial zoning has been transformed in the waterfront areas of downtown by the creation of two "waterfront form-based code districts." Form-based zoning has become more common in the past decade, as it is a reaction to the failures of use-based zoning to help control the form/style of development. The two form-based districts along the lakeshore and to the west of Front St. consist of only 124 acres, but this area contains many varied land uses, and some critical waterfront uses that include the lower harbor.

The proliferation of suburban-style, land intensive "strip development" that widely replaced walkable, pedestrian-scale, compact commercial development being one of the most obvious shortcomings of development standards based simply on types of land use. The N. Third Street corridor is an area for which another form-based code has been developed recently (2014), and once adopted into codes the "suburbanization" of that pedestrian-scale district should be halted and eventually reversed throughout the entire corridor.

Residential land uses make up the large majority of zoning area within the City, accounting for 45.7 percent of its total area. The residential zoning categories may be a bit misleading however, as multi-family residential districts are intended only for multi-family housing, whereas both the single family and general residential districts include apartments, and duplexes are a conditional use allowed in the general residential district. And the proliferation of single-family homes that have been converted to rental properties, has in essence created widespread multi-family land uses in the single-family districts. Mixing multi-family and single-family uses is in itself not a bad idea, in areas where residential transitions to commercial it can be very valuable, but in districts designed for and built out as single-family homes there are an assortment of problems that come with converting homes into as many as four separate rental units.

Also, when the last major overhaul to the Zoning Ordinance was adopted in 1978, the requirements for residential lot sizes was set at levels (e.g. 70 ft. and 80 ft. lot widths for general and single family residential districts, respectively) that have caused a variety of hardships for property owners to expand, reconstruct, or build accessory structures. The requirements were intended to accommodate larger suburban lots that were then the trend, but the legacy for the thousands of 50'-wide residential properties has been that of dozens of costly appeals cases going to the Board of Zoning Appeals each year.

The Conservation-Recreation (CR) district includes the most land in any single zoning district. Large swaths of conservation-recreation lands are located in the northern and

southern thirds of the City and along the lakeshore. All of the City parks are designated CR, as are some private properties, NMU properties, and Board of Light and Power properties. A large amount of land in the city is dedicated to institutional land uses, particularly the NMU campus, but the City currently lacks specific zoning for institutional land uses, and in the case of publicly-funded schools, the State of Michigan has the responsibility to regulate their land and therefore the City's zoning ordinance has no standing regarding those properties.

❋ RECOMMENDATIONS FOR LAND USE - THE FUTURE LAND USE MAP ❋

The Future Land Use Map (FLUM), shown in Figure 3.3 (inserted on p. 3-14) presents the proposed pattern of preferred land use for the next twenty years. The FLUM reflects many of the recommendations that have been presented throughout this document, with regards to issues such as economic development, transportation, neighborhood quality, and natural resource conservation. As discussed in Chapter One, the recommendations of this Community Master Plan are based on public input, including the goals that follow from the Vision Statement (see p. 1-3). The CMP is also based on findings from the research of professional staff and consultants, data analysis, historical perspectives, as well as the evaluation of current conditions and practices.

RESIDENTIAL

As is typical for most communities, residential land uses account for the largest land use category in the new Master Plan. To better differentiate the types of housing that fall within the broad residential land use category, three categories of residential land use will be presented: Single-family Residential, Mixed-Use Residential, and Watershed Residential.

Although many homes that serve as rentals produce no greater impacts than a typical single-family home, some do have unusual impacts such as an inordinate number of motor vehicles parking on site, and reduced open space (yards) due to the space paved or otherwise used for vehicle parking.

Single-Family Residential

Single-Family Residential represents the largest category of land use in the Master Plan. Because of the density of development that has occurred within the city's center and near Lake Superior, and the land required for single-family dwellings there is little room remaining for significant growth in the amount of single-family housing available in those areas. For that reason, most areas of new single-family residential use that are recommended in this Master Plan are located outside of central portions of the City.

It is important to note that the designation of an area as a single-family land use refers primarily to the number of dwelling units located on the lot (in this case 1 or 2 units per lot). It does not necessarily outline the number of occupants allowed in each dwelling (which should be based on a minimum floor space allotment per occupant, in development ordinances), nor does it include "conditional uses" other than residences, as there are several conditional or special uses that may be permitted through an application and hearing process. As it applies in this context, "Single-Family" includes both the current "Single Family" (RS) residential zoning district and the "General Residential" (RG) zoning district, as well as the TN-R district in the South Marquette Waterfront Form-Based Code District.

Please see page 3-24 regarding the creation of additional and/or more detailed zoning/form-based code districts and designations within the Single Family land use districts, to more specifically address the unique character existing and possible in different areas of the city.

Watershed Residential

In order to help balance the need for new development with the need for resource protection, the Master Plan promotes the use of a new residential designation called "Watershed Residential" within the Single Family land use area. This type of residential land use is particularly relevant where development may degrade the unique natural environment found in and along stream corridors. This land use designation would "overlay" zoning districts (including PUDs) and require development in the overlay zones to meet building placement and design standards to limit development on environmentally sensitive areas that include steep slopes, stream corridors, and seasonal wetlands (see Chapter 8 for more details). In return, it would allow developers to cluster residential developments in order to achieve higher building densities in the designated buildable areas, while protecting the sensitive areas and still incorporating them into their property portfolio (see Figure 3.2).

The regulation of development in these environmentally sensitive areas is in keeping with the recommendations of the *Whetstone Brook and Orianna Creek Watershed Management Plan* (2002), which scientifically analyzed the watersheds, identified buildable areas, and provided recommendations that are still relevant today.

Figure 3.2: Conservation Subdivision Example



Conservation Subdivision Traditional Subdivision

Multiple-Family Residential



This designation is applied to areas where there are 12 or more dwelling units per acre (high-density residential), or where this type of high-density housing is appropriate. Apartments, duplexes, condominiums, and town-home developments are all included in this designation, which includes single-family homes that have been re-zoned to a multi-family district, and group living arrangements allowed by ordinances in the single-family districts. A large area between Division St. and M-553 in S. Marquette is designated for expansion/development of multi-family housing options. The mixed-use districts will also allow for development of multi-use housing.

Mobile Home

Two designated areas, both with access to Pioneer Road, have served to accommodate mobile homes in the City for many years. These mobile home parks are appropriate locations for the continuation of this housing option within the city limits.

COMMERCIAL

The pattern of commercial development within the City of Marquette is a critical issue for the community. There has been much good progress in re-establishing the historic downtown as the commercial hub of the city in the past two decades, and there have been important investments in other commercial districts such as the N. Third St. "village" and along the W. Washington St. corridor. There is a clear preference in Marquette for maintaining a compact town and in that regard there is still room for improvement, but sprawling, suburban-style development has largely been kept to the U.S.41-M28 corridor. There are appropriate places for a wide variety of commercial uses in Marquette, as the following sections point out.

Central Commercial

Marquette has seen its historic downtown deteriorate under the pressure exerted by large, nationally-known retailers in areas outside of downtown and adjacent to the City, but businesses, the Downtown Development Authority, residents, and others have invested resources of all kinds to re-establish a strong downtown with a vital business district. And, portions of the downtown district have been included in the Downtown Waterfront Form Based Code district during the past decade. Progress has been impressive during the past decade, as the lead photo in the Executive Summary shows, but there are a number of policy actions that could further improve the downtown for commerce, making it an even more attractive shopping, service, dining, and entertainment destination. Those strategies are discussed in the "Other Policies" section of this chapter, on page 3-25.

Regional Commercial

This type of commercial land use designation serves to provide appropriate sites for hotels, car dealerships, very large stores (> 50,000 sq. ft.), and restaurants. Such uses typically develop along highway corridors on the edges of towns, and Marquette has such a commercial district along U.S.41/M-28, between McClellan Ave. and the western city limits. This area at the western edge of the City has a similar aesthetic to the highway-corridor development in the adjacent township, and it is designated as a "Regional Commercial" land use on the master land use plan, which is appropriate as it does have many businesses that cater to inter-regional travelers and shoppers, and this is an appropriate location for that type of commercial land use for the foreseeable future.

Corridor/General Commercial

The Corridor designation refers to the spatial development of commercial businesses in a linear pattern that is located along a major transportation corridor, which is often associated with the stereotypical "strip" development that is associated with urban sprawl. The term General in this context refers to commercial enterprises that serve a broad market, and businesses that are not specific to a type of location (i.e. a mall, a downtown, a mixed-use building or development). Corridor commercial development is typically general in nature, thus the combined terms in this zoning category. These types of commercial property uses are usually reliant on automobile traffic, and in a corridor often promote the tendency for customers to drive from one store to another, rather than parking in a central location and walking to adjacent stores. There are several major arterial streets in Marquette that have become dominated by this type of development and will continue indefinitely to be the preferred location for auto-oriented businesses.

Village Commercial

The area designated as Village Commercial is the subject area studied in the Third Street Corridor Sustainable Development Plan (3CSDP). There are detailed re-development proposals in the 3CSDP, with illustrations for each block, and there is a draft form-based code for the entire district. This is a mixed-use district (commercial with residential options), and the implementation of the 3CSDP will facilitate the modernization of the corridor to ensure the prosperity of commerce, expansion of mobility options and non-motorized transportation access, and the appeal of multiple housing options in the corridor.

Mixed-Use

Like the N. Third Street corridor, there are several dispersed areas throughout the city that are appropriate for a combination of commercial and residential uses. Many of the areas so designated on the FLUM are now primarily residential, such as the N. Fourth St. corridor, and some are currently commercial, but all of the areas so designated are proposed to allow for a mix of mainly retail commercial and residences. Such retail uses would provide pedestrian access to services and



Mixed use provides first-floor retail with residential units above

amenities such as corner markets, cafés, or other "mom-and-pop" stores, thus reducing the number of car trips required by residents to satisfy their need for basic services.
In these districts, residential would in most cases be above ground-floor retail uses, as is the case in the Central Business District and the TN-CR, and GC-MU sub-districts of the South Marquette Waterfront Form-Based Code District, but specific requirements and allowances for a particular property will be determined by zoning or form-based codes as appropriate.

Industrial

The new Master Land Use Plan identifies approximately 300 acres of industrial land use within the city limits. All of the industrial land activity identified is that which is presently zoned for industrial activities. Much of that is used for power generation in N. Marquette, municipal utilities, and activities associated with rail transportation of iron ore to the Upper Harbor. Private industrial land use is concentrated in two areas of N. Marquette. The zoning ordinance was amended in 2011 to allow for "light manufacturing" in commercial districts and some of the form-based code districts, which has expanded the potential location of some business activities that may formerly have been restricted to districts zoned Industrial.

Railroad Corridor (synopsis on following page)

The Upper Harbor Ore Dock railroad corridor runs north and west of the Presque Isle Power Plant



The transportation of iron ore to the Upper Harbor Ore Dock utilizes a corridor to the southwest of Presque Isle Park, which has been a part of the landscape for over 100 years. The corridor includes extensive rail sidings, and service roads, and will continue to be used for these activities for the foreseeable future.

State/Federal

Recognizing that lands owned by the State of Michigan and Federal agencies are used for civic purposes, but are exempted from local zoning authority, those properties have been aggregated into one land use classification that includes public schools, Northern Michigan University, and land owned by other agencies of the state and federal governments. Even

though zoning is exempted outright on these properties, some other City ordinances for land use still are enforceable, including the Sign Ordinance and Fence Ordinance.

Parks

These areas are being used for public parks on land owned and maintained by the City of Marquette and/or the Board of Light and Power. These properties include space for both passive and active recreation, a cemetery, and include the multi-use path system (a linear park) that traverses the west side of the city and south of Washington Street in abandoned railroad corridors. Expansions of the municipal park system, including multi-use paths, will be added to this land use category.

Conservation/Recreation

This land use category includes areas outside of municipal parks that are either being conserved or used for public recreation. Until a public planning process is conducted for property acquired through the purchase of "Heartwood Forestland" holdings, the land is to be kept in a conservation status. Much of the remaining "C/R" property is carried over from current/historical designations for land use, reflecting community preferences to conserve Lake Superior shoreline, to enjoy private recreation opportunities such as the Golf and Country Club, and to have open-space "buffers" in various locations. Some property in this category was formerly in a "deferred development" category that has been determined to no longer be necessary.

Civic

The Civic land use category includes municipal land (excluding parks), County facilities, private schools, hospital/health care facilities, houses of worship, and some other public and semi-public areas such as the Holy Cross Cemetery. The site selected for the new UP Health System Marquette medical campus (formerly Marquette General Hospital), on W. Baraga St., is designated as Civic as well.



The Lower Harbor ore dock is owned by the City of Marquette and is built upon "bottomlands" regulated by the State of Michigan. This is a Civic land use. Photo courtesy of the Superior Watershed Partnership Shoreviewer.

Board of Light and Power

This land use category includes property used by the Board of Light and Power (BLP) for the production of hydro-electrical energy, along the course of the Dead River, including flood-control areas designated by the Federal Energy Regulatory Commission. This land is managed by the BLP, and provisions of the City Charter dictate the disposition of BLP property.

Lake Shore Boulevard Relocation

This designation is for the planned relocation of Lake Shore Boulevard and the adjacent area to the east, where the current road right-of-way is, that will be restored as a functional dune and shoreline revetment complex. A design for this project was approved in 2014 and funding is currently being sought to implement the project. Storms in the second half of 2014 caused extensive damage to the rock revetment between Wright St. and Hawley St., allowing for flooding of Lakeshore Boulevard and long term damage to the road and the adjacent multi-use path, creating the need to close this section of road in interest of public safety. At the outset of 2015 the City is seeking emergency aid to have the rock revetment replaced and it is unclear how the events of late 2014 will affect the previous plans to reconstruct the road further inland and restore the dune complex lakeward of the road.



The relocation of Lakeshore Boulevard north of Wright Street will create more natural shoreline and protect the road from being undermined by water infiltration during storm events.

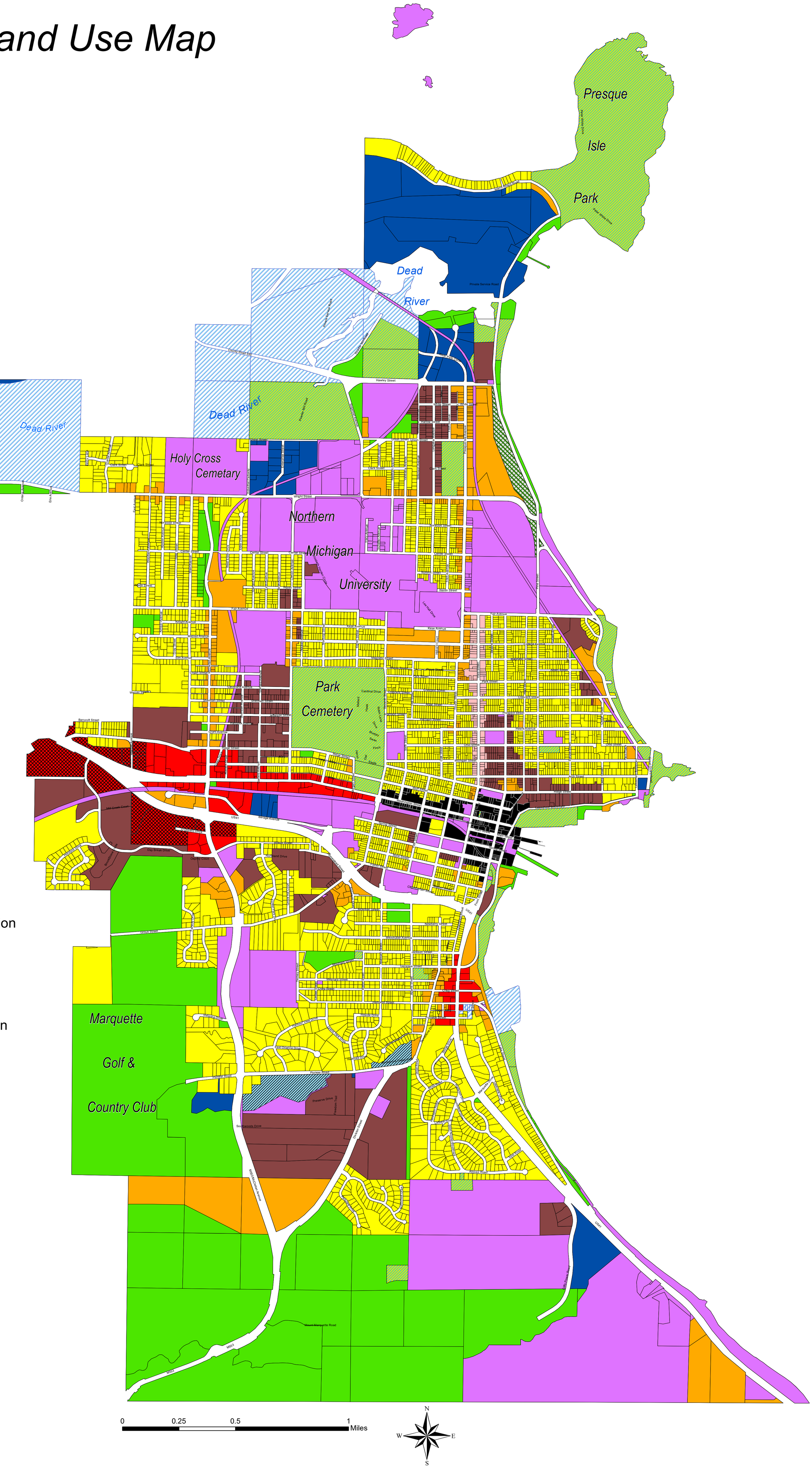
MARQUETTE COMMUNITY MASTER PLAN

Future Land Use Map

Future Land Use

Human Activity Types:

- Single Family Residential
- MultipleFamily Residential
- Mobile Home Park
- Central Commercial
- General Commercial
- Regional Commercial
- Third Street Corridor
- Mixed Use
- Industrial/Manufacturing
- Conservation and Recreation
- Parks
- Civic
- Board of Light & Power
- Lake Shore Blvd Relocation



❋ RECOMMENDATIONS FOR ZONING - THE ZONING PLAN ❋

The Zoning Plan: Recommended Zoning Districts for Future Land Uses

The following narrative provides details regarding each of the recommended zoning districts, and explains how the land use categories shown in the Future Land Use Map (FLUM) relate to the existing zoning districts and the proposed districts. The Zoning Plan is a required element of city planning, but it is not an ordinance, it is essentially a recommendation of how to achieve the Future Land Use Map through zoning districts. There is a considerable gap between the Future Land Use Map and existing zoning districts, and the Proposed Zoning Map is envisioned as a whole-cloth overhaul of the zoning ordinance and its districts. In fact, the Community Development Department has anticipated the development of a "Land Development Code" that will combine the zoning ordinance and form-based codes with other land-use ordinances (e.g. fences, land division/subdivision) into one unified ordinance. A budget line-item for that project was approved by the City Commission, and the project will follow adoption of this Community Master Plan, with an expected start date of summer 2015.

The Proposed Zoning Map, shown in Figure 3-4 (inserted on page 3-24) provides geographic locations of the recommended zoning districts and form-based code districts. Many of the proposed zoning/form-based code districts are carried over from the Official Zoning Map existing at the close of 2014, but several zoning districts are being recommended for the first time. Unless otherwise stated, the standards for bulk dimensions, yards, parking, signage, and etcetera are envisioned to be similar to existing standards, but new standards for all districts that are approved will be developed with the planned conversion of the Zoning Ordinance and form-based code districts into a unified Land Development Code. The creation and approval of such a Code/Ordinance will include many opportunities for input from the public and other interested entities, including several public hearings.

RESIDENTIAL

Three broad categories of residential land use currently are used in the Zoning Ordinance: Single-family Residential (consisting of two districts, the Single-Family and General residential districts), Multi-Family Residential, and Mobile Home. The two Form-based Code districts also include several other districts that accommodate residential uses, including the North Lakeshore Frontage, General 5, General 3, Founders 5, Traditional Neighborhood-Residential, Traditional Neighborhood-Commercial Residential, the Gateway Corridor Mixed-Use, and Waterfront Mixed-Use districts. In areas that currently are zoned Single Family and General residential, the districts and/or ordinance standards could be expanded to include designations such as "Traditional Neighborhood", "Mixed-Use Residential", " "Mixed-Density Residential", "Watershed Residential" (see p.3-8), and "Multiple-Family Cluster." Those options should be further evaluated during the planned conversion of the Zoning Ordinance and form-based code districts into a unified Land Development Code.

General Residential (GR)

The Plan proposes that the General Residential District continue to include and correspond to the current General Residential District. Within this district it is possible that other, compatible residential districts may be created during the planned amendment of the Marquette City Zoning Ordinance, as noted in the section above.

Single-Family Residential (SFR)

The Plan proposes that the Single Family Residential District continue to include and correspond to the current Single-Family Residential District. Within this district it is possible that other, compatible residential districts may be created during the planned amendment of the Marquette City Zoning Ordinance.

Recommendations to improve General and Single Family zoning districts:

***** *Ordinances should be revised to constrain the widespread conversion of single-family homes to rental units, many of which are poorly suited to accommodate multiple residents and the required parking space for each occupant.*

The issue of permitted residential occupancy is addressed by the City's zoning ordinance and form-based development codes. These ordinances address the permitted occupancy, but are out of date. The housing data in Chapter 5 points out the magnitude of the trend for conversion of homes to multi-unit rental properties, and Code Enforcement data (published in the annual reports of the Community Development Dept.) establishes support to amend ordinances to create higher standards that are enforceable for legally establishing multiple rental units in single-family homes.

***** *Ordinance standards should be revised for properties in the existing General Residential districts, so that minimum lot widths of 40 feet will conform with the schedule of general regulations.*

Thousands of homes that were built on lots platted prior to the 1950s are now non-conforming due to the requirement for 70 ft. minimum lot widths in the Zoning Ordinance *schedule of general regulations.* The intent of the wider lot size requirement, which were adopted in the late 1970s, was for new lots to be built to larger, sub-urban dimensions. Most new construction then was in outlying areas where new lots could be made larger. But the main concern should be the ongoing maintenance and reconstruction of the older lots, which far outnumber lots in the Single-family Residential district. Trends have also changed and smaller homes are now more popular, but larger lot standards would still be provided in the SFR district for those who already own large lots or want to live in those suburban areas.

***** *Ordinances should also be revised by creation of additional and/or more detailed residential zoning/code districts, and designations within the districts, to more specifically address the unique character existing and possible in different areas of the city.*

For example, instead of the current two districts for "single-family" housing that differ mainly in the minimum lot size and width as well as permissible conditional uses, the ordinances could be expanded to over a half-dozen districts that may include designations such as "Traditional Neighborhood", "Mixed-Use Residential", " "Mixed-Density Residential", "Watershed Residential", "Multiple-Family Cluster." Each district's use categories (e.g. single-family/duplex, multi-residential, mixed-use and non-residential) could specify the maximum number of dwellings, required yards/setbacks, maximum lot coverage, maximum height of structures (primary and accessory), maximum lot coverage of structures and paving, minimum floor area per dwelling unit, and of course the minimum lot size and width.

***** *Accessory Dwelling Units should be considered as a conditional use option for homeowners in General and Single-family zoning districts.*

Currently the ordinances regulating residential land use do not provide for the option of constructing accessory dwelling units (ADUs), only accessory structures such as sheds and garages which may not be used for dwellings. ADUs may impart several vital benefits to the community, including the strengthening of families, the preservation of "greenfields" and prevention of sprawling development outside of the urban core, and an increased tax base. ADUs do hold potential for negative impacts, but if ordinances restrict the use of ADUs to family of persons owning the primary structure, require design standards, and limit this as a conditional use in traditional/urban neighborhoods, there are going to be relatively few of the structures built. ADU development will also be attenuated by cost, as observers have pointed out that an addition to a house is likely to be a lower cost alternative to an ADU.

Multiple-Family Residential (MFR)

The Plan proposes that the Multi-Family Residential District continue to include and correspond to the current Multi-Family Residential District. Within this district it is possible that other, compatible residential districts may be created during the planned amendment of the Marquette City Zoning Ordinance.

The zoning plan proposes the following to expand allowable uses in this residential district:

***** *Include co-operative/co-housing arrangements as a primary use in the RM zoning districts*. Co-operative/co-housing is a long-term living arrangement in which a group of people live together under one roof, with separate individual and family sleeping quarters, and possibly separate bathrooms and kitchens, but share some facilities and spaces (such as kitchens, dining rooms, yards, sheds). The only "co-op" housing arrangements in Marquette at this time are likely to be fraternity or sorority houses, but "co-housing" is becoming more common in the general population and there are many (more than 70 according to one internet search) in Southern Michigan, particularly in Ann Arbor and larger cities. New co-operative housing can also be established with a Planned Unit Development (PUD) agreement, which establishes a zoning district unto itself.

Mobile Home (MH)

This new district corresponds to the two existing mobile home "parks"/land use areas, and this proposes that standards be created for these districts with the planned amendment of the Marquette City Zoning Ordinance. The current zoning districts for both of these areas is Planned Unit Development (PUD), but no documentation exists to support either area as a PUD, so a new zoning district must be created for the mobile home parks. Creating a "Mobile Home" zoning category will also provide designated areas in the city limits where this housing is to be allowed for the foreseeable future.



The Marquette Food Co-op opened a new grocery store on W. Washington St.. in 2014. Photo courtesy of the Marquette Food Co-op.

Central Commercial (CC)

This zoning district corresponds to the existing Central Business District in the Marquette City Zoning Ordinance. This district is the historic hub of city commerce and was a larger but more general commercial district when the first City Plan was published in 1951, but commercial

district zoning evolved and was refined to accommodate different types of commerce zoning for different markets. Even during the past decade portions of this district were reallocated to a form-based code district (see next category), in which the physical form of the property takes precedence over the allowable uses.

Downtown Marquette Waterfront Form-Based Code (DMWFBC) District

This zoning district corresponds to the existing DMWFBC district. This district includes several land use areas identified on the FLUM (p. 3-14), including Central Business District, Civic, Parks, Mixed-Use, Conservation/Recreation, and Multi-family Residential.

South Marquette Waterfront Form-Based Code (SMWFBC) District

This zoning district corresponds to the existing SMWFBC district. This district includes several land use areas identified on the FLUM (p. 3-14), including Multi-family Residential, Single-family Residential, General/Corridor Commercial, Industrial, and Parks.

Regional Commercial (RC)

The zoning plan proposes that this zoning district will correspond to select parcels currently in the General Business (BG) district. All of these parcels, with the exception of the "Jilbert's Dairy" parcel on Meeske Ave. (which is a long-standing business of regional scope), are located along the US-41/M-28/W. Washington St. corridor and have recently been sites for businesses that have a regional customer base. The new RC zoning classification is proposed to create standards that are different than those of the BG, to provide for maximum lot coverage/buildings size (floor area/square footage), as well as to have parking standards that are suited to the most automobile-dependent businesses.

Corridor/General Commercial (CGC)

The CGC zoning district is proposed to correspond with the CGC land use areas shown on the FLUM. For the vast majority of properties, this corresponds to the General Business zoning district in place in 2014, which is the zoning district these properties have been part of for many years. These are mainly properties that were developed with access primarily designed for customers arriving in automobiles. The following recommendation is for the Corridor/General Commercial zoning district:

* *District ordinance standards should include measures that would improve the pedestrian environment and the landscaping standards of this district*. Creating incentives for placing buildings closer to sidewalks and placing parking lots in the rear or to the side of buildings that are built to the sidewalks may be options. These measures would help to differentiate this area from nearby corridor development outside of the city.

* *A maximum lot coverage amount should be included in standards for this district, to provide for landscaped areas for aesthetic and environmental purposes, and to prevent the creation of extremely large stores and parking lots, which are better suited to the proposed RC district.*

Village Commercial (VC)

The area designated as Village Commerce is the subject area studied in the Third Street Corridor Sustainable Development Plan (3CSDP), which is included as Appendix G of this

plan. There are detailed redevelopment proposals in the 3CSDP, including illustrations for each block, and there is a draft form-based code for the entire district, with standards for bulk dimensions, yards, parking, signage, and etcetera. This is a mixed-use district (commercial with residential options), and the implementation of the 3CSDP will facilitate the modernization of the corridor to ensure the prosperity of commerce, expansion of mobility options and non-motorized transportation access, and the appeal of multiple housing options in the corridor.



A portion of the N. Third Street corridor

Neighborhood Commercial (NC)

The zoning plan proposes this new category that would apply to currently non-conforming retail or professional service businesses that are presently combined with residential uses (mixed-use), with frontage on non-arterial streets, and which are still in operation under non-conforming status. It may also be applied to new uses of the same type, such as small convenience/grocery stores in residential districts, fronting non-arterial streets and adjacent to sidewalks in the right-of-way. Allowable uses are recommended to exclude light manufacturing, storage, and other activities that are not retail-oriented or for the provision of professional services. It is envisioned that the designated properties would be allowed to have reduced parking space requirements that reflect being in proximity to hundreds of potential customers within a 5-minute walking distance, but a reduced allowance for signs and other advertising tools. Properties that are being included in this category include a convenience store and house on the same lot at 127 E. Hewitt, a mixed-use building (apartments/offices/former dance studio) at 131 E. Michigan, and a multi-tenant retail and service building that has been in operation at 505 Lakeshore Boulevard since 1912.

Mixed-Use (MU)

This zoning district is proposed to mimic the designated mixed-use areas of the FLUM. The M-U district will accommodate retail, professional service/office, and studio uses fronting both arterial roads and non-arterial roads within residential neighborhoods and in other districts in close proximity to residential uses, or where these mixed-uses would be appropriate. Such areas are particularly well-suited for certain demographics, such as the university student population and older adults not wanting property to maintain. Most of these areas are compatible for mixed-use zoning based on current or historical uses that are found to be compatible with residential neighborhoods, or new uses that are compatible with the designated mixed-use areas of the FLUM. Proximity to sidewalks and/or a multi-use path is an important feature for most of these properties.

Residential uses include moderate-density, multi-family options. All former Office zoning districts are included in this recommended zoning district. Standards for bulk dimensions, yards, parking, signage, and etcetera are to be based on the type of use(s) of the property.

Planned Unit Development (PUD)

A PUD is a development of flexible design, which meets the requirements of established PUD districts, as well as other ordinance provisions and conditions placed upon it by the Planning Commission. Several PUDs have been established throughout the city, for a variety of uses, from residential to industrial, and some of mixed commercial and residential uses. A PUD is unique in that it is a project that, once approved, creates a zoning district for that specific development.



A portion of "The Landing" residential PUD on S. Lakeshore Boulevard.

The development of PUD projects in the future will occur in various places as private interests choose appropriate sites, but the proposed land uses of the PUDs will be required to conform with the FLUM. It is anticipated that the PUD will continue to be a very attractive option for developers.

Industrial/Manufacturing (IM)

The zoning plan proposes that the industrial/manufacturing zoning district conform to the areas that are identified on the FLUM as industrial land activity, all of which are presently zoned for industrial activities. Much of that area is used for power generation (in N. Marquette), municipal utilities, and activities associated with rail transportation of iron ore to the Upper Harbor Ore Dock. A much smaller total area is being used for product manufacturing activities, which in some cases would be accurately described as "heavy manufacturing," but in many cases would meet the current Zoning Ordinance definition of "light manufacturing." The Zoning Ordinance was amended in 2012 to allow for "light manufacturing" in commercial districts and some of the form-based code districts, which has expanded the potential location of some business activities that may formerly have been restricted to districts zoned Industrial.

Some areas currently zoned as Industrial are recommended to be changed to match the current land activity. Some land that was designated as Industrial in 2004 has also since been reallocated to other uses by property owners.

Railroad Corridor (RC)

The transportation of iron ore to the Upper Harbor Ore Dock utilizes a corridor to the southwest of Presque Isle Park, which has been a part of the landscape for over 100 years. The corridor includes extensive rail sidings, and service roads, and will continue to be used for these activities for the foreseeable future. The recommended zoning district for this corridor is west of Lakeshore Blvd. and would encompass an area at least 200 ft. wide, with the railroad, sidings, and service roads inclusive.

State/Federal (SF)

Recognizing that lands owned by the State of Michigan and Federal agencies are generally exempted from local zoning authority, which is a legal precedent commonly known as "governmental immunity." Those properties have been aggregated into one land use classification that includes public schools, property of Northern Michigan University, US Coast Guard property, and all other state and federal landholdings in the city. It is likely that some

of these properties will be transferred to private owners at some point in time, and in that event either the purchaser will need to request a rezoning of the property, or the current owners will need to initiate a conditional rezoning process (see p.3-26), before development/redevelopment can commence.

Municipal (M)

Municipal property is used for widely varying purposes, including public works operations, offices, redevelopment (e.g. Founders Landing), and a large amount for parks, recreation, and other open space/conservation purposes. The zoning plan proposes to include all municipal property that is currently held for active purposes of government (according to the Municipal Property Inventory) in one Municipal zoning district, with the exception of property managed by the Board of Light and Power. The standards for the Municipal zoning district must provide for a great deal of flexibility while also meeting public expectations that standards similar to those in non-governmental zoning districts will apply for development on municipal property. Ensuring public safety and welfare, and sensitivity to the natural and built environment on and surrounding municipal property, must be reflected in ordinance standards that will be developed for this district.

Like state and federal land, municipal property that is being used for functions of government is exempted from zoning authority (in this case its own ordinance). As stated above, zoning standards for development on municipal property must be developed for a municipal district, but the ordinance must also provide allowances for the application of governmental immunity to certain projects conducted by the municipality. A process should be developed (and codified) to determine whether or not specific projects undertaken by the municipality are appropriate and qualified to be considered immune from its zoning ordinance, and the process should include who makes this determination, specific criteria for establishing immunity exemptions, and an appeals process. This should be done regardless of the creation of a municipal zoning district; such a process may prove useful at any time.

Civic (C)

The zoning plan proposes that public and semi-public land uses not found in the proposed SF, M, CR, or other districts be included in a new Civic zoning district. The C district would conform to the Civic land uses shown on the FLUM. Land uses in the C district would include: houses of worship, county government facilities, private schools, hospital property/facilities, and some other public and semi-public areas such as the Holy Cross Cemetery. There are several current zoning districts for these properties that would be changed under this proposal.

Conservation-Recreation (CR)

The zoning plan proposes that the CR zoning district be revised to conform with the CR category of the FLUM. The creation of the M district would reduce the vast extent of the CR zoning district as it exists in 2014, and some existing CR properties would also go into other zoning categories as appropriate, particularly the PUD category.

Board of Light and Power (BLP)

The zoning plan proposes to include all property owned and managed by the Board of Light and Power in one zoning district. The Board of Light and Power is a municipal utility with an elected body that it is responsible for the light and power operations of the City. Its

landholdings, which are generally used for purposes of electrical power generation, are subject to sale provisions of the City Charter, and though the BLP has reporting responsibilities to the City Commission it is not a municipal department. The zoning plan proposes to create a BLP district that is similar to the Municipal district, with development standards that address the range of potential uses and also providing allowances for the application of governmental immunity to certain projects conducted by the BLP (as a municipal authority).

Table 3.3, beginning below, provides a synopsis of how the land-use designations recommended in the Future Land Use Map are to be achieved through zoning districts and form-based code districts. This table includes a column for current zoning/code districts as well as the proposed zoning districts and form-based code districts.

Table 3.3: Future Land Use, Current Zoning, and Proposed Zoning

Future Land Use Category	Current Zoning	Recommendation
Single Family	Single Family Res. (RS), General Res. (RG), Conservation/Recreation (CR), Planned Unit Development (PUD), Marquette General Overlay District (MGHOD), Traditional Neighborhood-Residential (TN-R)	Single-Family Res. (RS); General Res. (RG)
Multi-Family	Multiple Family Res. (RM), Deferred Development (DD), Planned Unit Development (PUD), North Lakeshore (NL)	Maintain RM current zoning districts.
Mobile Home	Planned Unit Development (PUD)	Rezone to Mobile Home Res. District.
Central Commercial	Central Bus. District (CBD), General 3 (G3), General 5 (G5), Working Waterfront Zone (WWZ), Workshop Flex (WF), Industrial (I), Community Bus. (BC)	Maintain the existing CBD boundaries just change the name.
General/Corridor Commercial	Industrial (I), Community Bus. (BC), Planned Unit Development (PUD), General Bus. (BG)	Maintain zoning similar to BG but amend standards.
Regional Commercial	General Bus. (BG)	New zoning district.
Village Commercial	Community Bus. (BC) and General Res. (RG)	Apply form-based code recommended in Third Street CSDP.
Neighborhood Commercial	General Res. (RG) and Multiple Family Res. (RM)	New zoning district.
Mixed Use	Industrial (I), Community Bus. (BC), Planned Unit Development (PUD), General Bus. (BG), General Res. (RG), Multiple Family Res. (RM), Deferred Development (DD), Office (OS), Founder 5 (F5), Conservation/Recreation (CR), Gateway Corridor-Mixed Use (GC-MU), Traditional Neighborhood-Comm. Res. (TN-CR), Waterfront-Mixed-Use	New zoning district.

Industrial	Industrial (I) and Conservation/Recreation (CR)	Maintain current I-zoned districts that are being used for industrial activity.
State/Federal	Industrial (I), Community Bus. (BC), General Bus. (BG), General Res. (RG), Multiple Family Res. (RM), Deferred Development (DD), Conservation/Recreation (CR), Central Bus. District (CBD), Single Family Res. (RS)	New zoning district.
Conservation/Recreation	General Bus. (BG), Multiple Family Res. (RM), Industrial (I), Single Family Res. (RS), Planned Unit Development (PUD), Deferred Development (DD), Office (OS)	Maintain the CR district for appropriate properties.
Parks	Industrial (I), General Bus. (BG), General Res. (RG), Multiple Family Res. (RM), Deferred Development (DD), Conservation/Recreation (CR), Central Bus. District (CBD), Planned Unit Development (PUD), Waterfront-Recreation Conservation (W-RC)	New zoning district.
Civic	Industrial (I), Community Bus. (BC), General Bus. (BG), General Res. (RG), Multiple Family Res. (RM), Deferred Development (DD), Office (OS), Conservation/Recreation (CR), Waterfront-Mixed Use (W-MU), Central Bus. District (CBD), General 3 (G3), General 5 (G5), Working Waterfront Zone (WWZ), Single Family Residential (RS)	New zoning districts - Civic and Municipal (see Proposed Zoning Map)
Board of Light & Power	Gateway Corridor-Mixed Use (GC-MU), Industrial (I), Conservation/Recreation (CR)	New zoning district.
Railroad Corridor	Industrial (I)	New zoning district.
Lake Shore Blvd. Relocation	Deferred Development (DD)	Add this to the Municipal zoning district.

Proposed Zoning Map

The Proposed Zoning Map, shown in Figure 3-4 (on the following page) provides geographic locations of the recommended zoning districts and form-based code districts. Many of the proposed zoning/form-based code districts are carried over from the Official Zoning Map existing at the close of 2014, but several zoning districts are being recommended for the first time, as described in the preceding pages. The Proposed Zoning Map will only become legally binding through a separate process of amending the Marquette City Zoning Ordinance, which is planned to follow the adoption of this Master Plan with the conversion of the Zoning Ordinance and form-based code districts into a unified Land Development Code.

The standards for bulk dimensions, yards, parking, signs, and etc. shall generally be similar to existing standards, but proposed standards for all districts will be subject to review by the public, and must be recommended for approval by the Planning Commission in a public hearing for amendment of the Zoning Ordinance, and finally must be approved by the City Commission in a public hearing to adopt proposed amendments of the Zoning Ordinance.

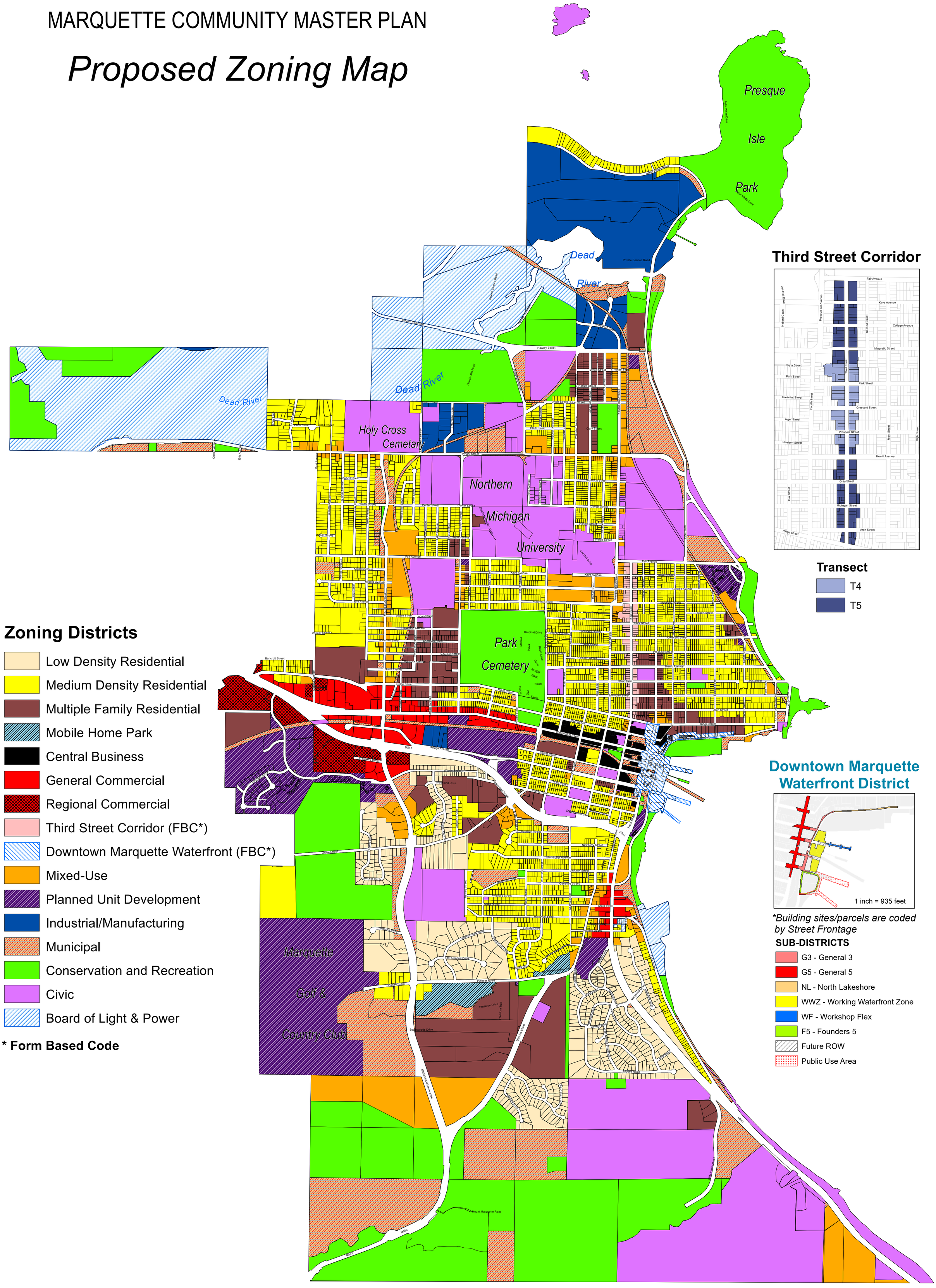
MARQUETTE COMMUNITY MASTER PLAN

Proposed Zoning Map

Zoning Districts

- Low Density Residential
- Medium Density Residential
- Multiple Family Residential
- Mobile Home Park
- Central Business
- General Commercial
- Regional Commercial
- Third Street Corridor (FBC*)
- Downtown Marquette Waterfront (FBC*)
- Mixed-Use
- Planned Unit Development
- Industrial/Manufacturing
- Municipal
- Conservation and Recreation
- Civic
- Board of Light & Power

*** Form Based Code**


Presque Isle Park
Presque Isle Drive
Dead River
Private Service Road
Dead River
Powder Mill Road
Holy Cross Cemetary
Northern Michigan University
Park Cemetery
Marquette Golf & Country Club
Lake Superior
Fair Avenue
Kaye Avenue
College Avenue
Magnetic Street
Park Street
Crescent Street
Prospect Street
Hewitt Avenue
Ohio Street
Michigan Street
Arch Street
Ridge Street
Hawley Street
Wright Street
Center Street
Washington Street
Ridge Street
Bancroft Street
Pioneer Road
Preserve Drive
Mesnard Street
Mesnard Street
Mesnard Street

Recommendations for Zoning Ordinance Improvements

The zoning plan in the previous section identified recommended changes in the number and character of the city's zoning districts in order to implement the future land use plan. It also recommended specific amendments to ordinances that apply to certain zoning and form-based code districts. Below are more recommended changes for the Land Development Code, which are intended to both improve generally upon the current ordinance and to facilitate implementation of the future land use plan.

Development Standards

- Enhance architectural design standards for residential and non-residential uses so that standards applied to new development would require consistency of bulk and setbacks with existing buildings, as well as consideration of general style and materials consistency in residential areas, and promotion of specific materials quality for waterfront districts.
- Establish setbacks from natural features including wetlands and streams.
- Develop incentives for the preservation of open space.
- Implement riparian buffer requirements to prevent runoff from parking lots and other impervious surfaces from entering surface waters.

Planned Unit Developments (PUD)

- Implement an improved procedure of submission for the Zoning Compliance Permit (ZCP) and/or review the fee schedule for phased projects to consider options for reducing the high cost of these permits. Developers typically submit a ZCP for each building when they are ready to build, and thus multiple permits may be required and issued for phased projects. The permits are required to ensure development is in accord with the approved PUD and contract; and to ensure that interior construction meets the city Fire Safety Code; and to provide proof of municipal permission to the County Building Codes authority.
- Implement procedural amendments to ensure that phased projects are eventually completed, or that various phases are constructed independent of one another and sustainable without subsequent phases.

Parking

- The existing parking standards shall be reviewed to determine proper parking ratios for districts and development uses including residential development within commercial areas, recognizing the availability of existing on-street parking and shared parking.
- Potential incentives to encourage shared parking for new uses and redevelopment of existing sites shall be evaluated for incorporation into the zoning ordinance.
- Require hard-surface parking for new rental property applicants prior to approval of applications, and require renewal applicants to also provide adequate hard surface areas for the number of renters.

Site Plan

- Require evaluation of the traffic impact of future large projects.
- Require the project preserves open space where appropriate to preserve natural features including wetlands and floodplains, large-diameter trees, and scenic views.

- Require that existing utility infrastructure be capable of meeting the demands of the proposed development.
- Require that a proposed development minimize the disruption of natural site topography and drainage.
- Require that proposed developments connect to the existing pedestrian/path network where adjacent.

Zoning District Standards

- Review existing zoning standards to determine the tools available to encourage improvement and redevelopment of existing commercial areas within the city.
- Review design standards for Central Commercial and Village Commercial districts to ensure that business are close to the sidewalk to support the standards of a "Walkable Community."
- Revise standards for lot coverage in commercial districts to ensure that new "big-box" stores and other extremely land-intensive businesses are limited to the recommended Regional Commercial districts.
- Consider overlay zone or other approaches to limiting density of development permitted with environmentally sensitive areas.
- Review the uses allowed in districts intended principally for single-family residential use and identify uses permitted that are inconsistent with the district intent and other uses that are not currently permitted that should be considered.
- Review setback and height standards to determine that standards reflect and protect the character of neighborhoods.
- Consider establishing regulations concerning medical marihuana related to land use and districts, in consultation with the City Attorney.
- Review regulations concerning sexually oriented business and district locations.
- Establish regulations to permit development of private property while protecting important viewsheds along the waterfront and other identified viewshed areas.

Governmental Immunity

- Like state and federal land, municipal property that is being used for functions of government is exempted from zoning authority (in this case its own ordinance). The zoning ordinance (and/or other relevant codes) should also provide allowances for the application of governmental immunity to certain projects conducted by the municipality. A process should be developed to determine whether or not specific projects undertaken by the municipality are appropriate and qualified to be considered immune from its zoning ordinance, including who makes this determination, specific criteria for establishing exemptions, and an appeals process.

As mentioned in previous sections of this chapter, the Community Development Dept. will (beginning in 2015) facilitate the creation of a "Land Development Code." A consultant will be hired to work with the staff and Planning Commission to conduct a comprehensive revision of the City's zoning ordinance, and to combine that revised ordinance with the adopted downtown form-based codes and the code developed for the N. Third St. corridor, as well as the other land-use related ordinances that the city staff is charged with enforcing.

Other Policies Related to Planning and Zoning

The following is a partial listing of policy and ordinance concerns that should be addressed during the revision of the creation of the Land Development Code. The items listed below are some of the most important to review.

Conditional Rezoning

A thorough process for the consideration of applications for conditional rezoning should be developed, along with criteria for approval of such applications. In order for this option to be available to landowners wishing to re-zone property, including as a condition of sale, there have to be provisions in the zoning ordinance to address the conditional rezoning option.

Transportation

- Codify access management standards to maintain street capacity and minimize traffic conflicts.
- Resolve conflicts between zoning ordinance provisions and city code standards for curb cuts, and include revised standards into a comprehensive access management ordinance/code subsection of city code.
- Resolve conflicts between zoning ordinance provisions and city code standards for "clear vision triangles" at intersections.
- Establish bicycle parking requirements and standards for new large-scale commercial and residential developments in all districts.

Sign Ordinance

A critical review of the sign ordinance is likely to establish that several improvements are in order, including:

- A more refined method of allocating signage to businesses with multiple tenants in one building, particularly in the Central Business District. Such a review should be undertaken with the planned overhaul of the zoning ordinance and form-based codes.
- A revision of exemptions (signs exempt from ordinance standards) and definitions that takes into account sign content neutrality.
- The inclusion of detailed standards for murals that are proposed to serve as signs, and those that are not intended as signs (graphic advertising).
- Creation of standards for the form-based code districts and any new zoning districts.

Central Commercial District

Progress in the downtown core of the city has been impressive during the past decade, as the lead photo in the Executive Summary shows, but there are a number of land use and policy decisions that could further improve the downtown to create an even more attractive shopping, service, dining, and entertainment destination for people visiting from outside of town. These priorities are shared by the Downtown Development Authority and the Planning Commission:

- A wayfinding project should be undertaken to recommend and erect/place directional and interpretive aids for visitors and residents around the downtown and waterfront districts.

- Implementation of a parking management plan. A study was conducted by Nelson-Nygaard and Associates that made many recommendations for the downtown and N. Third St. districts.
- A market analysis of retail and other business activity should be conducted.

Master Plan Maintenance

A master plan is not a static document. It must continuously be maintained and updated if it is to remain valid. This plan calls for the Planning Commission to review it regularly - each year - and for an in-depth review to be conducted a minimum of every five years as required by the Michigan Planning Enabling Act. Below are recommendations on key indicators that the City of Marquette Planning Commission can use to determine the need for a plan update.

Changes in Current and Projected Conditions

The master plan is based on certain assumptions concerning the growth of the city, and these assumptions are contained primarily in the plan's factbook and are reflected in the future land use plan. It is important for the Planning Commission to regularly monitor these assumptions to determine if they are still valid. If they become invalid, the planning commission must determine what the changes in circumstances mean for the CMP's goals and recommendations. Some of the critical assumptions include the following:

Adjacent Planning and Zoning

Changes in the Master Plans and/or zoning maps of Marquette Township, Chocolay Township, and Marquette County should be reviewed to consider their impact on the City's plans. Particular attention should be given to changes that increase the intensity of land uses adjacent to the City. The Michigan Planning Enabling Act requires the townships and the county to notify the City whenever it is proposing to adopt changes to their plans. The Michigan Zoning Enabling Act does not contain similar coordination requirements, but as discussed above, the City could enter into arrangements with the townships to notify it of proposed rezonings within "500" feet of the City boundary in return for the reciprocal notification by the township.

Transportation

Major changes in the traffic flow on the arterial streets in the City could have significant impact to land uses, neighborhoods, and to other streets that traffic may divert to either temporarily or long-term. The City should continue to monitor traffic counts and accident rates at key intersections to identify potential congestion/delay points and/or safety issues.

Utilities

The master plan identifies portions of the City that are not served by municipal water and sewer, but does not explicitly anticipate expansion to those areas. Any expansion of that service area could affect the proposed development of those areas. The Planning Commission should be kept abreast of the status of utility improvement plans.

Master Plan Goals and Policies

A master plan is based both on the facts that describe the conditions in a community, and the municipality's vision of the future. That vision is outlined in the community's goals. For

example, the current breakdown of various housing types is a fact. Community attitudes can change over time, which means that goals may change in time even though the facts have not. The master plan's recommendations describe how a community is proposing to reach its identified goals. Effective policies can also help a community reach the master plan's goals.

Housing Cost

Changes in housing cost in comparison with household income impacts housing affordability. An increase in the housing affordability gap may justify consideration in changes to future land use plans or other housing policies to increase the supply of affordable housing. Measuring changes in housing costs is complicated because cost is not directly tied to changes in housing values and rents. It is also impacted by turnover rates for owner-occupied dwellings (not every property owner buys a new house every year) and other housing costs, such as energy, utilities, and insurance. The Census Bureau provides data and estimates that measure housing cost (as shown on p.4-14) and the change in housing costs. The City can also get a rough measure of housing cost by comparing changes in property values (provided by assessing data) and changes in rents based on a random sample of rental units if so desired.

Annual Review

The Planning Commission will hereby implement a new policy to hold a review of the Community Master Plan recommendations and the future land use/zoning plan on a regular basis, dedicating at least three regular meeting work sessions to this task annually. At least one work session should be scheduled to occur in the fall months to begin the review, and at least one should be scheduled during the winter months to complete the review. As part of review of a master plan, the Planning Commission should look at the plan's goals and recommendations and ask the following:

1. Is there a need to modify the vision/goals and/or recommendations of the plan based on changes in conditions in the community?
2. Have there been changes in community attitude that require the plan vision/goals to be reviewed?
3. Have the current plans recommendations been or not been effective in implementing the stated recommendations?

Although review of the master plan is recommended to be conducted each year as stated above, many problems with a master plan will become obvious during consideration of a rezoning. It is important to continue to reference the master plan for each rezoning request, but this review should also consider if amendments to the master plan are in order as a result of findings from the rezoning requests. This is covered in more detail in the subsection on referencing the master plan for zoning reviews.

Five Year Review

Under the terms of the Michigan Planning Enabling Act, the Planning Commission must review the master plan at least every five years to determine if there is a need to update it. The procedures outlined above can be followed at that time to meet that requirement, but there are also detailed guidelines available from Michigan State University Extension (the Land Use Series *Check List for Adoption of an Amendment to a Plan*) that should be consulted in order to comprehensively evaluate the need for a Master Plan amendment. The findings and determination should be recorded in the minutes and through a resolution attached to the appendix of the Plan.

The review should be a formal process if the Planning Commission intends it to serve as compliance with the requirements of Section 45 (2) of the Michigan Planning Enabling Act. This means there should be a record of the factors outlined above (or others, including those found in the aforementioned MSU-E *Check List*) that were reviewed, and the basis upon which the Planning Commission determined an update was or was not necessary. The findings should be set out in a resolution adopted by the Planning Commission. The Planning Commission's annual review of the CMP will also be helpful for making a good determination of the need for amendments when the five-year review comes due.

Using the Master Plan for Zoning Ordinance Amendment Review

In considering a rezoning request or a proposed text amendment, the primary question to ask is; "Does this zoning amendment conform to our master plan?" Subsidiary questions follow:

- Was there an error in the plan that affects the appropriateness of the proposed amendment?;
- Have there been relevant changes in conditions since the plan was approved that affect the appropriateness of the proposed amendment?; and
- Have there been changes in the community's attitude that impacts the goals and objectives of the plan and affect the appropriateness of the proposed amendment?

Answering these questions should answer the question of whether or not a zoning amendment is appropriate, and that should frame the reason within the context of the plan. This method of analyzing a request rests on the assumption that a request that complies with a valid plan should be approved and that one that does not comply with a valid plan should not be approved (the principal exception to this rule would be text amendments intended to improve administration of the ordinance). Further, it assumes that the three circumstances that would invalidate a plan are:

- an oversight in the plan;
- a change in condition that invalidates the assumptions that the plan was built on;
- or a change in the goals and objectives that the community set for itself.

Oversight

An oversight in a master plan can be an assumption made based on incorrect data, an area on a future land use map that is incorrectly labeled, or other factors, that if known at the time of the master plan adoption, would have been corrected.

Changes in Conditions

A plan is based on the assumption that certain conditions will exist during the planning period. If those conditions change, then goals, objectives, and land use decisions that made sense when the plan was adopted will no longer be valid and a zoning amendment that was not appropriate before may be appropriate now.

Change in Policy

In the end, a master plan is based on the community's vision of what is the best future for their municipality. When that vision changes, the master plan should change. When a zoning issue results in a change in vision, a decision can be made that is contrary to the current

master plan as long as that new vision is first explicitly incorporated into the master plan. Unless the master plan is amended to reflect changes there should be no recommendations made to approve proposals that are contrary to the master plan.

Consistency with the Master Plan

The issue of consistency with the Master Plan can vary based on the master plan concerned. For the purposes of this plan, consistency with the Master Plan in the case of a rezoning means it is consistent with most of the recommendations, as well as the Future Land Use Map. In the case of a proposed text amendment, consistency means it is consistent with the vision statement and goals and most of the relevant recommendations.

Additional Considerations Related to Zoning Ordinance Text Amendments

Changes to the text of a zoning ordinance should be evaluated not only on the standards outlined above, but on other possible criteria that may not have any impact on the goals and objectives of the Master Plan. These "plan neutral" changes are appropriate when:

1. The text change is necessary to clarify a provision of the ordinance
2. The text change is necessary to correct an error in the ordinance
3. The text change is necessary to improve administration of the ordinance or to better serve the community
4. The text change is necessary to address a provision that is determined to be inconsistent with state or federal law

Two points should be made. First of all, the factors for consideration (oversight, change in condition, or change in goals or policy) can work in reverse; making a proposal that otherwise seems appropriate, inappropriate. Secondly, these factors should not be used to create excuses for justifying a decision to violate the master plan, or to change it so often that it loses its meaning.

Rezoning Requests

A rezoning request has the potential to significantly affect both land use and transportation impacts on the subject property and on surrounding properties. This is one of the most significant land use actions that come before municipal decision-makers, and the zoning ordinance explains the process for rezoning in detail. As with amending the zoning ordinance due to changes in community values and goals (vision), unless the master plan is amended to reflect changes there should be no recommendations made to approve proposals that are contrary to the master plan. Figure 3.5, on the following page, illustrates the decision tree for reviewing a proposed rezoning request.

Figure 3.5: Decision Tree for Planning Commission Review of a Proposed Rezoning

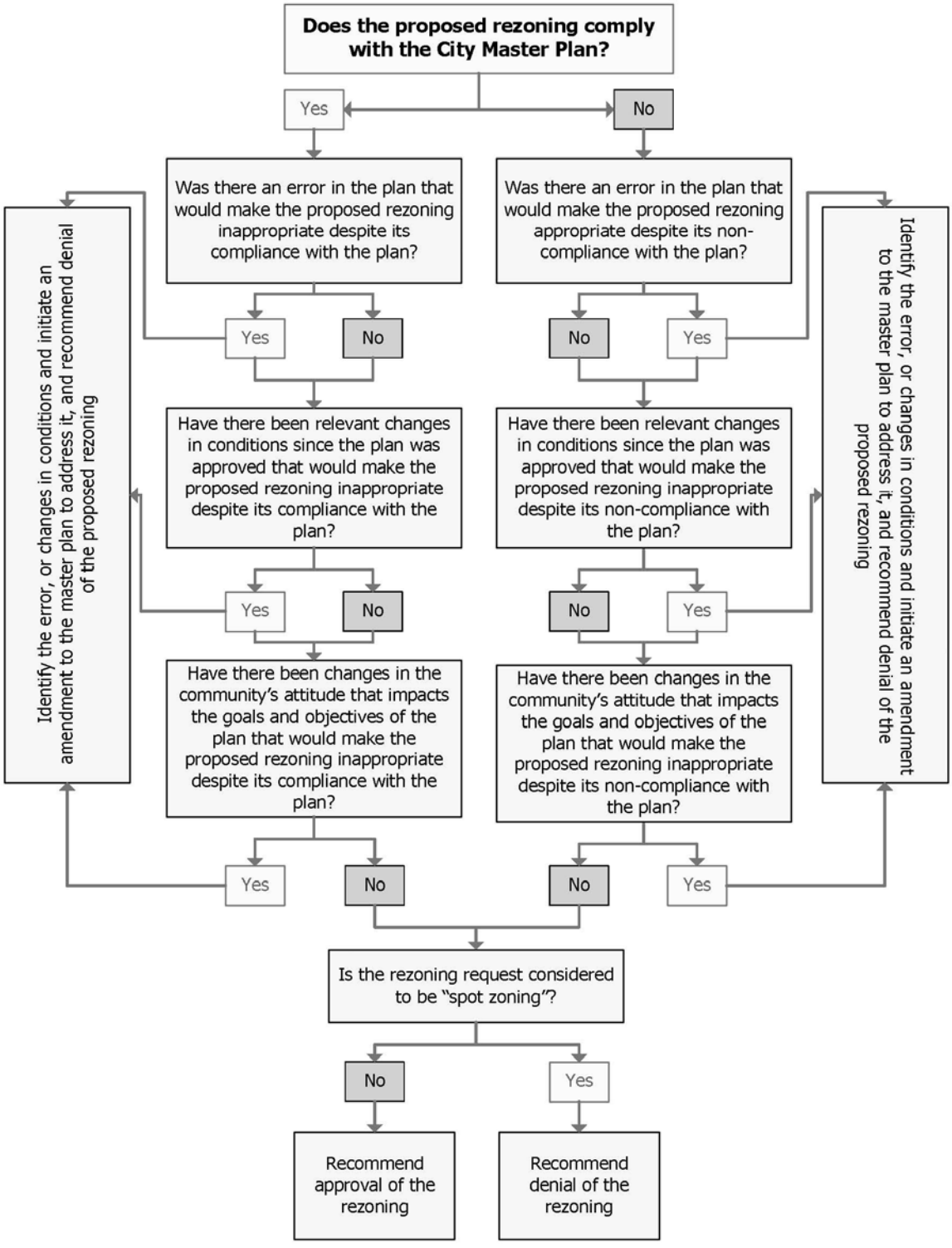




Photo by Mike Itchue, MLive Media Group

DEMOGRAPHICS

Introduction

Understanding human population changes is integral to long-term planning for a community, particularly if there is rapid population growth occurring. This section will review the standard demographic indicators such as current population, historical trends, projected growth, and age distribution. It will also focus on the resulting effects that these changes could have on the City of Marquette. Table 4.1, on p.4-2, shows historical population trends for the City of Marquette and several of the surrounding municipalities.

Population Trends

In the 2010 Census, the City of Marquette reported a population of 21,355 persons. This figure represents a 3.09% increase from the City's population in 2000. Adjacent townships such as Marquette, Negaunee and Sands also reported population increases, but the nearby cities of Ishpeming and Negaunee experienced population decreases. Marquette County experienced almost a 4% increase, in contrast to a decrease in population for the Central Upper Peninsula population and the State of Michigan overall. The demographic data that follows is all derived from US Census Bureau reports, and Planning staff has provided analysis. The data presented does not cover every aspect of demographics that may be of interest to the public, but does focus on the most relevant aspects of demographics for the City of Marquette.

Table 4.2, also on p.4-2, provides a population projection for the City of Marquette and other jurisdictions, based simply on the percentage change in population between the 2000 and 2010 Census. Population projections are normally based upon a 30-year evaluation of changes, but this would not be appropriate, as the past thirty years have been unstable locally due to the 1995 shuttering of the K.I. Sawyer Air Force Base. The projections for the State utilize the typical 30-year "cohort survival" method of projection, based on Census Bureau decennial census records. Most local jurisdictions in Marquette County have completely adjusted to the loss of several thousand Air Force personnel/families formerly living in the area during the past decade.

Table 4.1: Historical Population Trends (Source: US Census Bureau)

Location	Population					
Census Year >	1960	1970	1980	1990	2000	2010
City of Marquette	19824	21967	23288	21977	20714	21355
% Change		*10.81%*	*6.01%*	*-5.63%*	*-5.75%*	*3.09%*
City of Ishpeming	8857	8245	7538	7200	6686	6470
% Change		*-6.91%*	*-8.57%*	*-4.48%*	*-7.14%*	*-3.23%*
City of Negaunee	6126	5248	5189	4741	4576	4568
% Change		*-14.33%*	*.1.12%*	*-8.63%*	*-3.48%*	*-0.02%*
Marquette Township	1880	1703	2669	2757	3286	3905
% Change		*-9.41%*	*56.72%*	*3.30%*	*19.19%*	*18.84%*
Chocolay Township	2235	3299	5685	6025	6095	5903
% Change		*47.61%*	*72.32%*	*5.98%*	*1.16%*	*-3.15%*
Negaunee Township	1383	1760	2443	2368	2707	3088
% Change		*27.26%*	*38.81%*	*3.07%*	*14.32%*	*14.07%*
Sands Township	1657	2164	2437	2696	2127	2285
% Change		*30.60%*	*12.62%*	*10.63%*	*-21.10%*	*7.43%*
Marquette County	56,154	64686	74101	70887	64634	67077
% Change		*15.19%*	*14.55%*	*-4.34%*	*-8.82%*	*3.78%*
State of Michigan	7,824,965	8,875,083	9,262,078	9,295,297	9,938,444	9,883,640
% Change		*13.20%*	*4.36%*	*0.36%*	*6.92%*	*-0.55%*

Table 4.2: Population projection to 2030

Location	Population Projected to Year 2030			
	2000	2010	2020	2030
City of Marquette	20,714	21,355	22,015	22,695
City of Ishpeming	6,686	6,470	6,270	6,076
City of Negaunee	4,576	4,568	3,770	3,111
Chocolay Township	6,095	5,903	5,717	5,537
Marquette Township	3,286	3,905	4,641	5,515
Negaunee Township	2,707	3,088	3,522	4,018
Sands Township	2,127	2,285	2,455	2,637
Marquette County	64,634	67,077	69,613	72,244
Michigan*	9,938,444	9,883,640	9,340,040	8,826,338

* Using the Cohort Survival Method of Population Projection

"There has been a slight increase in those of retirement age, but the national data shows that a large increase is coming from the aging of the "baby boom" generation"

Special Resident Populations and Housing

An informed analysis of population in the City of Marquette also needs to reveal that a significant portion of the City's population base is university students and prisoners of the Marquette Branch State Prison. Officials of Northern Michigan University reported in early 2013 that the number of students living on campus is 2,947, and that number of students living off-campus and using a Marquette zip code was 2,625 (note that 49855 includes those living in Harvey, Marquette Township, and some other locales adjacent to Marquette). While it is practically impossible to state with certainty how many NMU students are living in the City on a given day during the standard academic year, it is likely that the number is approximately 5,000, with roughly 5,600 having a 49855 zip code.

The average number of prisoners at the Marquette Branch Prison in 2010 is reported by the State Bureau of Prisons as 1,157, which was slightly above the average of 1,124 prisoners for the 2000-2010 decade.

While students and prisoners obviously are quite different from each other in the impact they have on the City, each population (especially the on-campus students and the prisoners) has a distinctly different impact than typical residents, who are more likely to be here year-round, live in an owner-occupied home, utilize municipal and private services, vote for local office candidates, and so forth.



NMU student housing serves about 3,000 residents



Photo courtesy of the Mining Journal

Marquette Branch Prison is located south of the Carp River, near Lake Superior, and houses more than 1,100 prisoners from Michigan.

Households

An increase of 250 households was reported in U.S. Census Bureau data, as shown in Table 4.3. And, the composition of households is seen changing. The decline in "family" households was significant locally, showing a 6.84 percent slide. One and two person households increased by 468 combined, which is not surprising given the increase in the student population at NMU. Average household size decreased slightly, along with family size, showing that the national trend of declining population growth from reproduction is locally relevant.

Nationally there was an increase of 22 percent in single-parent households and 30 percent in multi-generational between 2000 and 2010, while husband-wife households declined from 52 percent to 48 percent of all households during that decade.

Table 4.3: 2010 Household Composition

Categories	Census Year		Change
Household Composition	2000	2010	Percent
Total Households	8,071	8,321	3.10%
Family Households	4,066	3,788	-6.84%
Male Householders	2,851	2,584	-9.37%
Female Householders	1,215	1,204	-0.91%
Nonfamily Households	4,005	4,533	13.18%
Male Households	1,734	2,034	17.30%
Living Alone	1,209	1,360	12.49%
Female Households	2,271	2,499	10.04%
Living Alone	1,779	1,816	2.08%
Household Size			
1-person	2,988	3,176	6.29%
2-person	2,726	3,006	10.27%
3-person	1,180	1,108	-6.10%
4-person	815	721	-11.53%
5-person	290	230	-20.69%
6-person	57	60	5.26%
7-or-more-person	15	20	33.33%
Average household size	2.13	2.05	-3.76%
Average family size	2.81	2.71	-3.56%

Age Distribution

U.S. Census Bureau data, as shown in Table 4.4, Table 4.5, and Figure 4.1 (on p. 4-6) indicates that the City of Marquette has a slightly increasing elderly population combined with a slightly decreasing youth population. The size of the economically dependent youth population is relatively small, as is the size of the population in retirement age. As can be expected, the age 20-29 cohort is much higher in Marquette than what would usually be the case in cities without colleges.

Table 4.4: 2010 Household Compositions

Age Group	Number	% of Total
Under 5	788	3.7
5 to 9 years	630	3.0
10 to 19 years	3061	14.3
20 to 29 years	6458	30.2
30 to 39 years	2059	9.6
40 to 49 years	2073	9.7
50 to 59 years	2534	11.9
60 to 69 years	1601	7.5
70 to 79 years	1108	5.1
80 to 84 years	444	2.1
85 years and over	599	2.8
TOTAL	21355	100

Comparing years 2000 and 2010, there were some significant shifts in the demographic makeup of the City resident population. Most significant was the increase in those age 20-29 (+1,523/30.2 percent). One obvious explanations for this increase is student enrollment at NMU. In fall of year 2000 the total student population was 8,427, whereas in fall 2010 enrollment was 9,417, just ten short of one thousand added students.

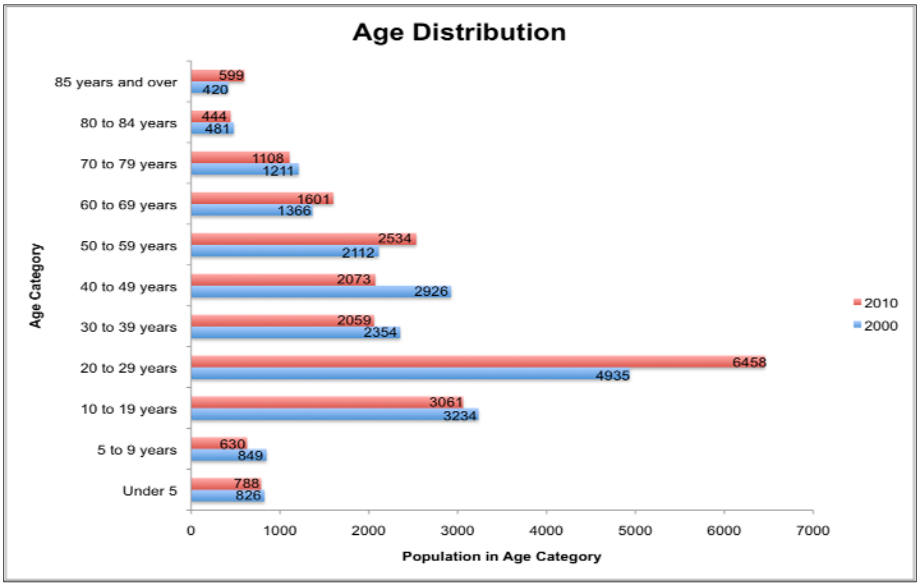
The "under 20" population of Marquette was twenty-one percent of the population in 2010, a decrease of 2.7 per cent and 430 persons in those age cohorts since 2000, with the biggest losses in the age 5-9 (219) and 10-19 (173) cohorts. The percentage of residents in the two youngest cohorts is about half that reported statewide and in the USA. The number of people age 70 and above, which largely consist of retired persons, increased by only 39 persons since year 2000, but those age 60-69 have increased by 235, and those 50-59 have increased by 422. There were declines in every other age category except in the 20-29 age cohort.

Table 4.5: Number of Persons by Age Cohort - Decade Change

Age Group	2000	2010	% Change
Under 5	826	788	-4.6
5 to 9 years	849	630	-25.79
10 to 19 years	3234	3061	-5.35
20 to 29 years	4935	6458	30.86
30 to 39 years	2354	2059	-12.53
40 to 49 years	2926	2073	-29.15
50 to 59 years	2112	2534	19.98
60 to 69 years	1366	1601	17.2
70 to 79 years	1211	1108	-8.51
80 to 84 years	481	444	-7.69
85 years and over	420	599	42.62
TOTAL	20,714	21,355	0.31

The largest decline is seen in the age 40-49 cohort, which declined by 853, less than half of which, if we assumed aging-in-place, may be seen in the gain in the age 50-59 cohort. Since age 40-49 is a prime age for career development, it is likely many people left the City for new employment or lower cost housing as the economy contracted significantly in the later years of the decade. The bar chart on the following page shows these changes graphically for easy comparison.

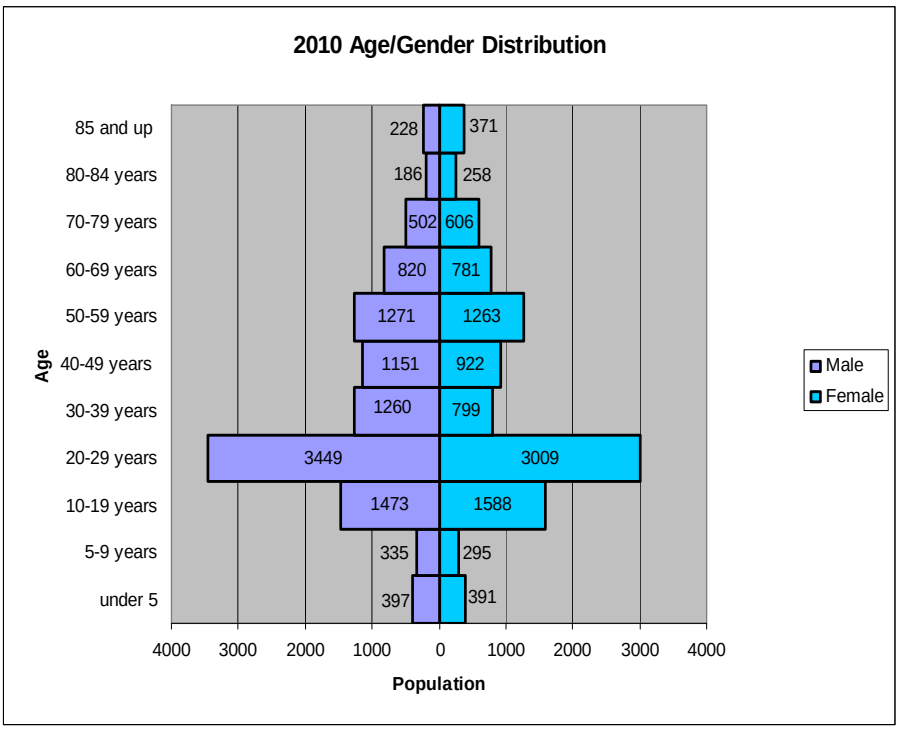
Figure 4.1: Age Distribution- Decade Change (data source: US Census Bureau)



Age and Gender

A comparison of males and females by age shows a fairly balanced number in most age cohorts. Females are larger as a gender group in the oldest cohorts. There is a relatively large male cohort in their early adult years, about 13 percent larger than the same age population of females. The household composition data shown in Table 4.3 shows that male households increased by 17 percent in the decade, while female households grew much less, which mirrors the data for males and females living alone.

Figure 4.2: 2010 Age-Gender Distribution (data source: US Census Bureau)

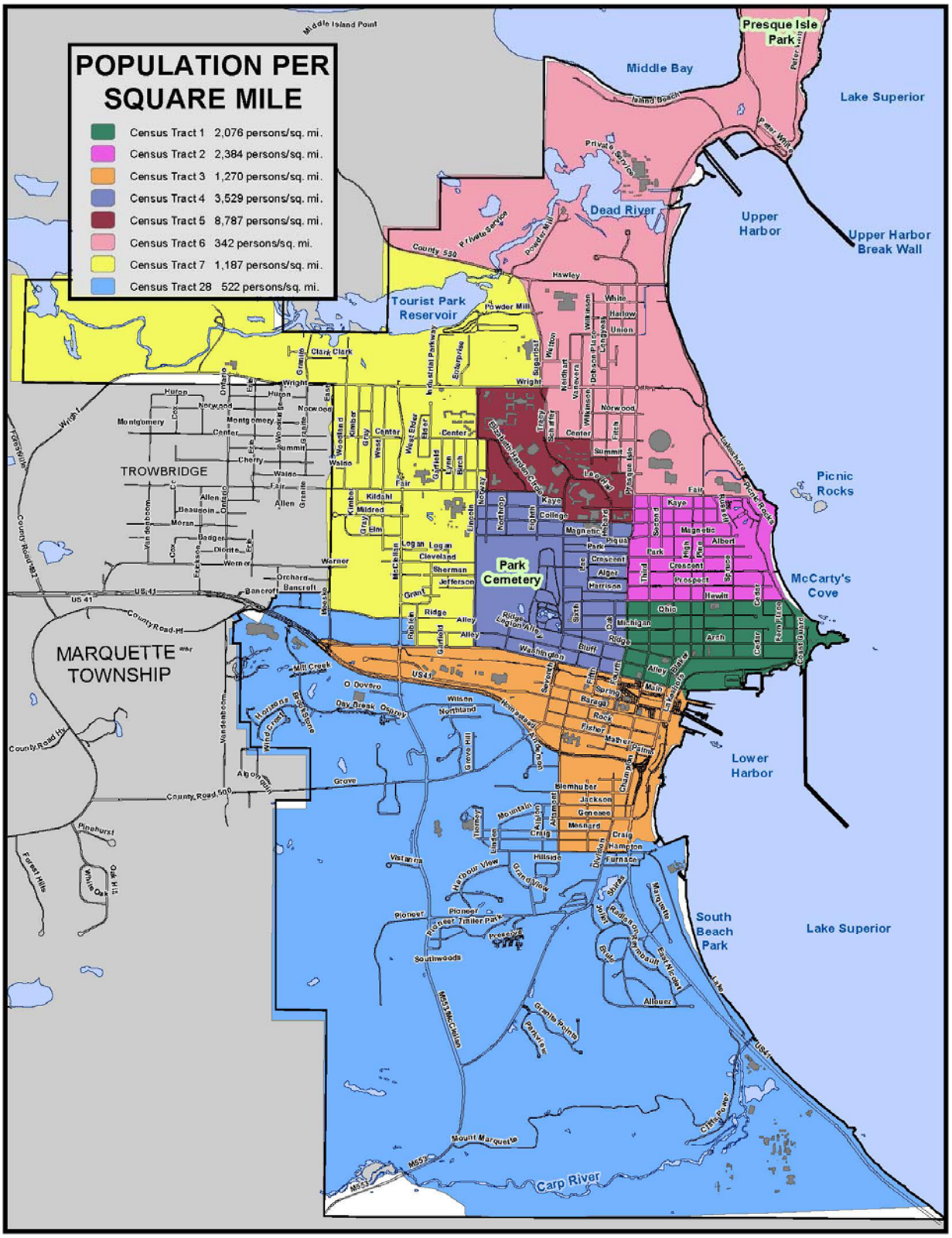


Population Density

Understanding the density and spatial distribution of people in the City can help City leaders best plan for, and distribute amenities and services. The presence of Northern Michigan University within the community has significant effects on the population density for the City of Marquette.

Figure 4.3 identifies Population per census tract. The densest populations are located within and near the NMU academic campus. This is presumably due to numerous student dormitories. The Census land divisions are explained in the following section on Housing.

Figure 4.3: Population By Census Tract (data source: US Census Bureau)



Commuter Population

The City of Marquette has a large daytime population of working commuters. A Census Bureau estimate of the commuter-adjusted daytime population is displayed below in Table 4.6. The margin of error for the overall estimates is 10 percent (there is a 90 percent level of confidence that the actual value is within a range of 10 percent, above or below the estimated value). This temporary increase in population has wide-ranging impacts that are hard to quantify, from added customers for businesses to increased environmental contamination, but it also places a quantifiable number of additional traffic on the local transportation network.

Table 4.6: Estimated Daytime Commuter Population

Total resident population	Total workers working in place	Total workers living in place	Estimated daytime population	Daytime population change due to commuting	Percent daytime population change due to commuting
21,247	16,345	10,241	27,351	6,104	28.7

National and Global Trends of Importance

The "Baby Boom" generation started retiring with Social Security Insurance benefits in 2013, beginning a major shift to a much larger elderly population that is projected to double today's elderly United States population by 2060. Significant economic and fiscal implications will follow from this shift. Particularly interesting questions are how a relatively smaller workforce will be able to provide the products and services demanded by a relatively large group of elderly persons who are still consumers, and how the working-age cohort will be able to support the entitlement benefits that the much larger elderly cohort earned during their working years.

Older Americans have experienced decreasing financial security in the past decade. A 2012 survey done by AARP indicated that a growing number of senior citizens may not be able to stay in their homes as they grow older. The majority of middle-income people over age 50 owned their homes "free and clear" in year 2000, but eleven years later the majority had a mortgage. And, between 2000 and 2009 the percentage of that same group who were "housing cost burdened" by spending more than 30 percent of their income on housing rose from 20 percent to 29 percent. AARP has also reported that the use of public transportation by older citizens increased by 40 percent between 2001 and 2009.

Another trend that is worthy of mentioning is that the composition of households in changing, and nationally there was an increase of 22 percent in single-parent households and 30 percent in multi-generational households between 2000 and 2010, while husband-wife households declined from 52 percent to 48 percent of all households during that decade.

Globally, population growth continues at a staggering pace, with approximately 220,000 people being added to the world population each day (net gain of births minus deaths), enough people to create about 9 metropolitan areas the size of "Chicagoland" each year! Most of the growth is in "developing" countries such as India and China, while population growth rates have slowed significantly in much of Europe, the United States, and Canada. The natural and man-made resources that the rapid global expansion of people requires are limited, and the ability to safely dispose of waste and otherwise mitigate the environmental impacts of the growing human enterprise is also limited. Some important ramifications of this population growth are global in

scope, but the many acute affects will be localized, such as increasing fragmentation of forest and wetlands habitat, and an increase in solid waste management and pollution, as a result of increased natural resource extraction activities and power generation necessary to support the expanding consumption of goods that accompanies growth regionally, nationally, and globally.

WHAT DOES ALL OF THIS MEAN FOR MARQUETTE?

The population increases in the City of Marquette, adjacent townships, and Marquette County point to a fairly resilient local economy compared to areas of the state that were more economically dependent on narrowly-focused heavy-industries, and/or sprawling real estate development and housing construction. Also, an increase of roughly one thousand students at NMU cannot be overlooked as a very significant part of the calculation for the City of Marquette. Ishpeming and Negaunee have experienced steady population losses since 1950 due to a reduction in mining jobs in the western end of the county, while a concurrent general deterioration of their town centers has transpired.

Marquette has become a desirable place for people of all ages to live, and the increase in the 20-29 year-old group - most of those being in the generation born between 1982 and 1990 and known as "Generation Y/Millenials" - is a particularly good development.
Marquette appears to be attracting and retaining young adults, those who are most mobile and free to choose where they want to live and who are provide energy and cutting edge technical skills to their local economy. There has been a slight increase in those of retirement age, but the national data shows that a large increase is coming from the aging of the "baby boom" generation.

Marquette has been touted in national publications as a premier retirement destination, but the population data is inconclusive as to any trends taking place in that regard. The next decade is likely to make that much clearer, as local seniors with financial freedom choose to stay or leave. Whatever the case, there will be a larger population of seniors here in the coming years, the only question is - how large? And how will other events and trends, such as climate change and economics, affect population shifts that could result in substantial local population growth?

Both the increase in young adults and seniors point to the impending need for more affordable, multi-family housing options near urban activity centers. Recent surveys done by the Michigan State Housing Development Authority indicate that retired persons are seeking apartments as their preferred choice of housing. Young adults also want flexible housing arrangements such as apartments and townhouses. Marquette should plan for services that accommodate the needs of both the increasing Senior and Millennial generations, particularly facilitated growth in appropriate housing and transportation options.

RECOMMENDATIONS

Due to the items and concerns previously discussed, Marquette should be prepared for the following impacts to:

• Housing
Housing in/near downtown areas will be sought after; new active-living communities and assisted living facilities are likely to be developed; new technologies that assist aging people in their existing homes will proliferate. Existing housing will be further modified. New, lower-cost housing options will also appeal to younger members of the workforce and some daytime commuters.

• Transportation
Priorities will include expanding transit/mobility options for both in-town travel and commuters from outlying areas; making roads safer for older drivers; making neighborhoods more walk-able and safer for pedestrians and bicyclists. Improved accessibility via way-finding improvements and "universal design" concepts integrated into public facilities would also benefit daytime commuters and visitors to the City.

• Economic Development
Plan for the fact that older people will create economic opportunities and attract new businesses. Trends are that earning power, wages and benefits of younger workers are less generous than those offered in the past, which is making it harder for those workers to afford quality housing and transportation.

• Public Safety
Promote/support community safety organizations; cognizance of elder abuse; plans for emergencies and disasters may need to be updated.

• Recreation
Continue and possibly expand multi-generational community facilities and civically-sponsored programs. Support the formation of a Regional Recreation Authority.





HOUSING

Introduction

Marquette residents have long supported a vision in which their neighborhood would have a well-maintained housing stock, provide convenient and accessible connections to activity centers, and possess a unique "sense of place." This chapter will focusing on housing - the bedrock component of neighborhoods - and the analysis of related factors including geographic population distribution, housing quality, housing tenure, age of dwellings, and the affordability of housing.

Current Assessment of Housing Stock

Recent data was collected and several analyses were conducted to identify the characteristics of the housing stock in Marquette. The spatial or geographic distribution of features is of particular interest for residents and property owners who want to understand the direction of any changes that may be observed, and for planning purposes.

To begin with, a working understanding of how the data is derived is important. The main source of demographic and housing data is the US Census Bureau, and almost all of this data can be mapped. The basic maps we use for this section are based on land divisions called "census tracts." The tracts are divided into "block groups" and further subdivided into "blocks." A block group represents an aggregation of the data from each individual block and is the smallest unit studied for our data review. More data sets are available for the larger divisions, and at the block level there are many types of data that were not available from the decennial census, which provides the largest sample sizes and hence most reliable data.

Another important thing to keep in mind when considering the following neighborhood housing data is that newer, large apartment buildings account for many housing units in some of the neighborhoods that are dominated by older single-family homes, which may create confusion about the validity of data reporting tenure, housing age, and number of rental units.

It is also important to understand that a "housing unit" can be a house, an apartment, a mobile home, a group of rooms (dormitory), or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. Kitchens don't have to be separate.

Figure 4.4 shows the census tracts within and around the City of Marquette. Note that the tract bordering Marquette on the west is tract 29.

Figure 4.4: Marquette Area Census Tracts (Source: US Census Bureau website)

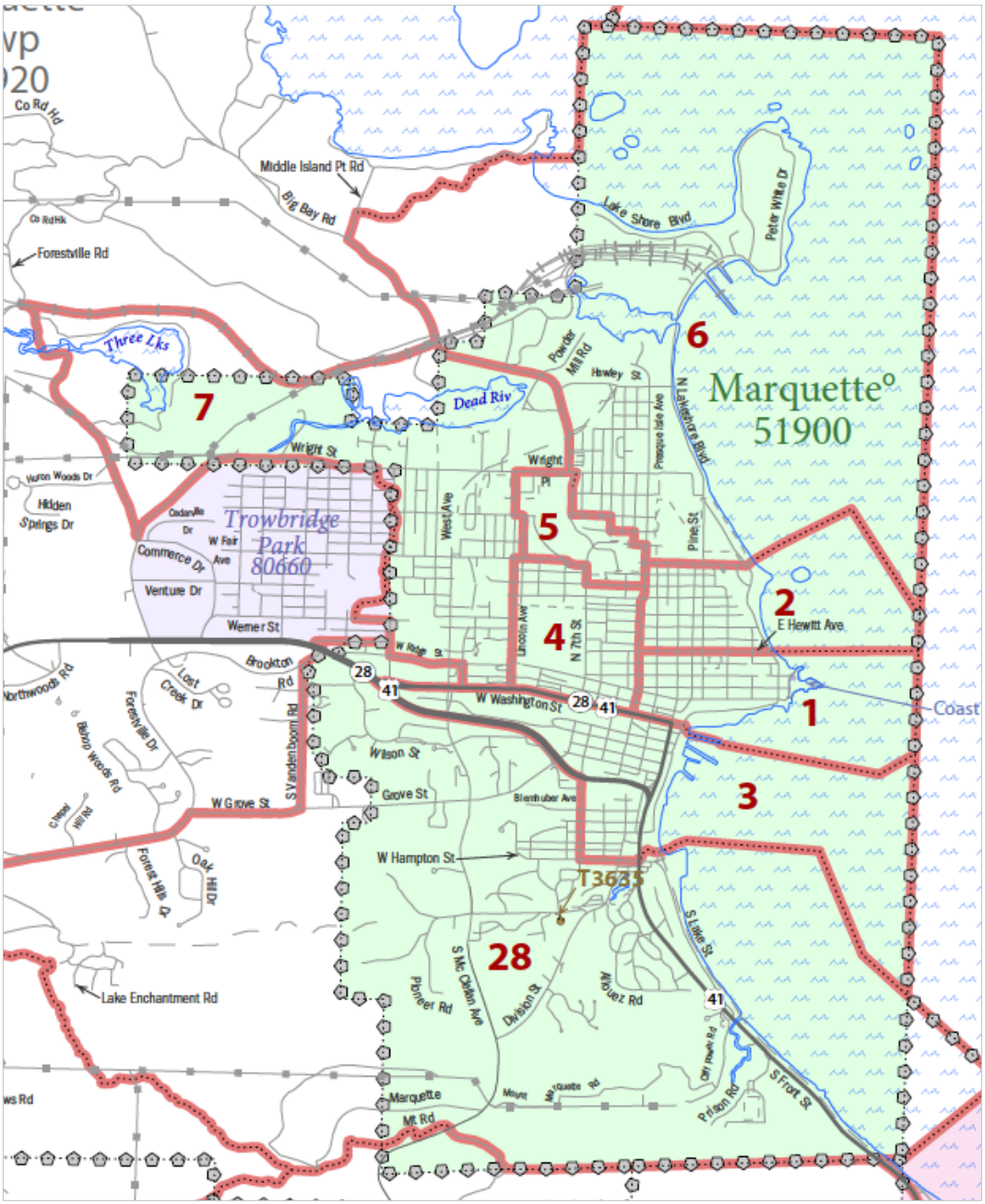
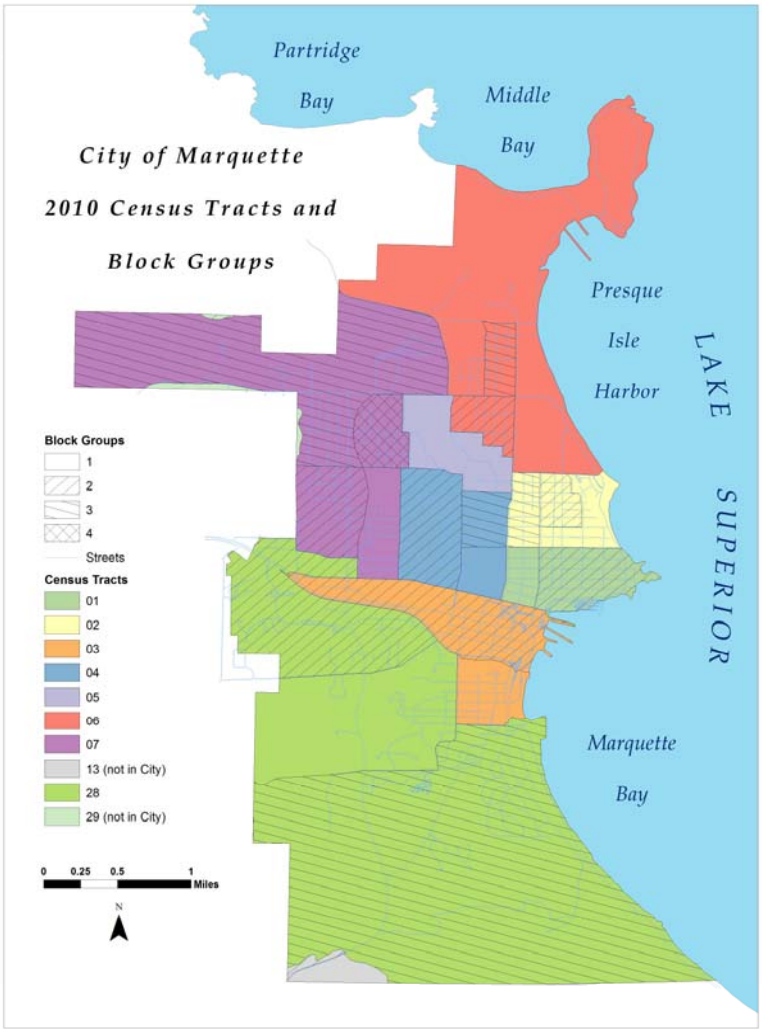


Figure 4.5: US Census Bureau 2010 Block Groups



To make this map less complex, streets are shown in light blue, and street names were not shown. But the tracts and block groups do tend to follow streets, and for orientation note that:

- Fair Ave. divides tracts 2 and 6, as well as 4 and 5, north to south.
- Washington St. divides tracts 3, 4, 7, and 28 north to south.
- Lincoln Avenue divides tracts 4 and 7 east to west.
- N. 4th St./Presque Isle Ave. divides tracts 1 and 2 from 4, east to west.
- Altamont St. divides tracts 3 and 28, east to west, south of US 41.

Neighborhood Composition – Housing Tenure

Housing Tenure relates to the type of occupant in a housing unit, either owner-occupied or renter-occupied. Two levels of analysis are presented, one being by block group and one by housing units. 2010 Census data indicates that of 21 block groups, 11 may be categorized as "Renter Neighborhoods," with owner-occupied housing dominating the remaining ten block groups. The number of block groups typically changes with each decennial census, depending on geographic distribution of the population and other factors, and there was a consolidation, from 26 to 21 block groups, for the 2010 census. Two block groups in 2000 contained no homes, and so are not included in any of the following tables related to housing.

Table 4.7, on the following page, summarizes the changes in Housing Tenure by block group. Renter-occupied housing by block group increased by about 6.5 percent from 2000 to 2010, indicating that areas of rental housing have increased. However, the correlation of block groups to housing units is not direct, and the number of block groups was reduced from the 2000 Census. To ascertain a more accurate ratio of rental to owner-occupied housing, we need to look at housing units. Tables 4.8 and 4.9, also on the following page, summarize the number of units and tenure characteristics by block group and housing units.

Table 4.7: Housing Tenure Aggregated by Block Group 2000-2010

	Number of Block Groups by Year		Percent of Total by Year	
Neighborhood Type	**2000**	**2010**	**2000**	**2010**
Owner-Occupied	13	11	54.2%	47.6%
Renter-Occupied	11	10	45.8%	52.4%

When a finer-grained analysis is used, analyzing tenure by housing units, we find that the shift of owner-occupied housing to rental housing was not quite so dramatic, as shown in Table 4.7.

Table 4.8: Housing Tenure by Housing Units 2000-2010

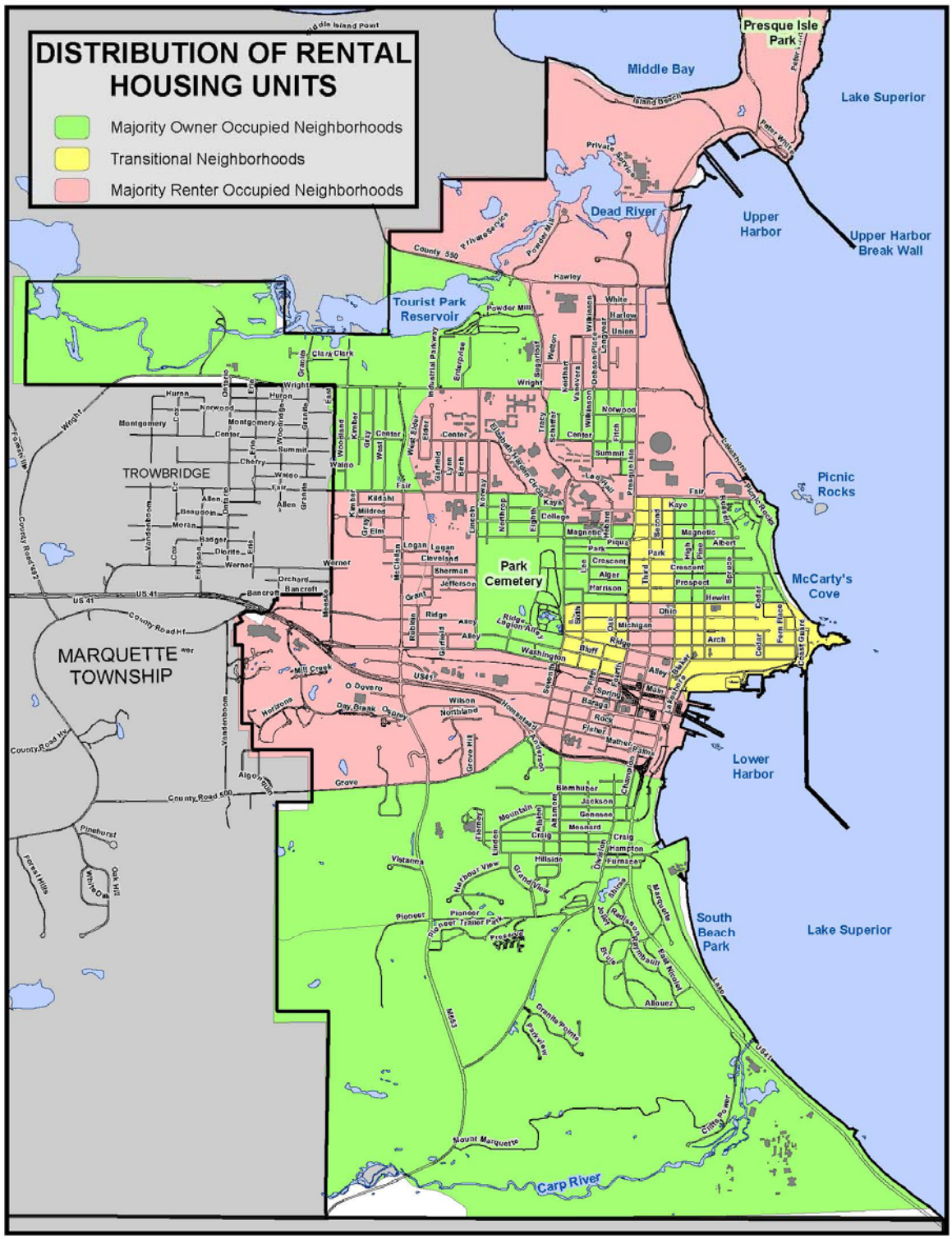
Year	Owner-Occupied (units)	Owner-Occupied (%)	Renter-Occupied (units)	Renter-Occupied (%)
2010	3993	49.5%	4326	50.5%
2000	4316	52.3%	3944	47.7%

Table 4.8 shows that the ratio of rental to owner-occupied housing units was nearly equal in 2010. With 333 more rental units, there were one-half percent more rental units than owner-occupied housing units. Fig. 4.6 on p.4-15 shows the spatial distribution of rental housing units.

Table 4.9: Housing Tenure by Housing Units 2010

Census Tract	Block Group	Housing Units	Owner-Occupied (units)	Owner-Occupied (%)	Renter-Occupied (units)	Renter-Occupied (%)	Neighborhood Type
1	1	309	77	24.9%	232	75.1%	Renter
1	2	679	307	45.2%	372	54.8%	Renter
2	1	345	202	58.6%	143	41.4%	Owner
2	2	305	241	79.0%	64	21.0%	Owner
2	3	316	151	47.8%	165	52.2%	Transitional
3	1	320	209	65.3%	111	34.7%	Owner
3	2	636	169	26.6%	467	73.4%	Renter
4	1	284	153	53.9%	131	46.1%	Transitional
4	2	265	216	81.5%	49	18.5%	Owner
4	3	307	190	61.9%	117	38.1%	Owner
5	1	142	12	8.5%	130	91.5%	Renter
6	1	382	133	34.8%	249	65.2%	Renter
6	2	263	168	63.9%	95	36.1%	Owner
6	3	388	43	11.1%	345	88.9%	Renter
7	1	563	72	12.8%	491	87.2%	Renter
7	2	469	205	43.7%	264	56.3%	Renter
7	3	310	273	88.1%	37	11.9%	Owner
7	4	423	171	40.4%	252	59.6%	Renter
28	1	362	329	90.9%	33	9.1%	Owner
28	2	517	165	31.9%	352	68.1%	Renter
28	3	734	507	69.1%	227	30.9%	Owner
Totals		**8319**	**3993**	**49.51%**	**4326**	**50.49%**	

Figure 4.6: Rental Housing Distribution



* The Census Bureau defines a block group as being either a "renter" or "owner" type if at least 55 percent of occupants are in one group; and with 46% to 54% of units as owner-occupied the area is considered "transitional."

Age of Housing Stock

Identifying housing that was constructed prior to 1940 can help identify neighborhoods that may be of particular historical significance. Table 4.10 shows the percentage of housing built prior to 1940 for each census tract. The "Total Units" here differ slightly from the above tables, because the age of housing stock figures were derived from the 2010 American Community Survey, not the decennial Census data. Additionally, this data is only available at the census tract level, hindering the ability to perform a more detailed analysis.

Table 4.10: Age and Tenure of Housing Stock

Census Tract	Neighborhood Type	Total Units	Built Pre-1940 (units)	Built Pre-1940 (%)
2	Owner	1082	573	52.96%
4	Owner	1029	513	49.85%
3	Renter	982	452	46.03%
1	Renter	1108	407	36.73%
5	Renter	148	21	14.19%
6	Renter	1199	142	11.84%
7	Renter	1947	152	7.81%
28	Owner	1840	47	2.55%

As the table indicates, the two census tracts with potential historically significant housing are predominantly owner-occupied. However, two renter-dominated census tracts have high percentages of historically significant housing as well. Because rental property often suffers from poor maintenance, this may signal that some of Marquette's historic housing stock is at risk. Strategies for ensuring that these homes are protected and well cared for are discussed later in this section. Figure 4.7 (on the following page) displays the data in Table 4.10 graphically, which allows us to see locations of both rental housing and historic housing.

Housing and Density

Trends in the density of dwelling units, as well as number of occupants per unit has changed significantly over time. Historically, houses were built near the city's core and in close proximity to each other. In the 20th century, as personal automobiles became standard and residential loans became easier to acquire (especially after World War II), residents were able to build further from the downtown core area and its associated amenities. The term "urban sprawl" was coined to describe the increase in the distance of development from the city's center, as well as the increase in residential lot size and consequent decrease in housing density. Figure 4.6 shows that a high percentage of historic homes are centered around the downtown core.

Marquette's housing and population densities indicate that the City's growth pattern has been subject to urban sprawl, as most U.S. communities have been. As indicated in the housing units per census tract data reported in Figure 4.8 (on p. 4-18), a fairly high density of housing units are concentrated in close proximity to the historical downtown area, particularly compared to the outlying areas (Census Tracts 6, 7, 28). Again, keep in mind that newer, large apartment buildings account for many housing units in some of the neighborhoods that are dominated by older single-family homes, which may create confusion about the validity of the data reporting

tenure, housing age, and number of rental units. The "Pine Street Apartments" and "Snowberry Heights" are two examples. The highest density Census Tract in the City is Tract 5, which contains many dormitories around the NMU campus, and it is also a fairly small area in total.

Figure 4.7: Age and Tenure of Housing Stock

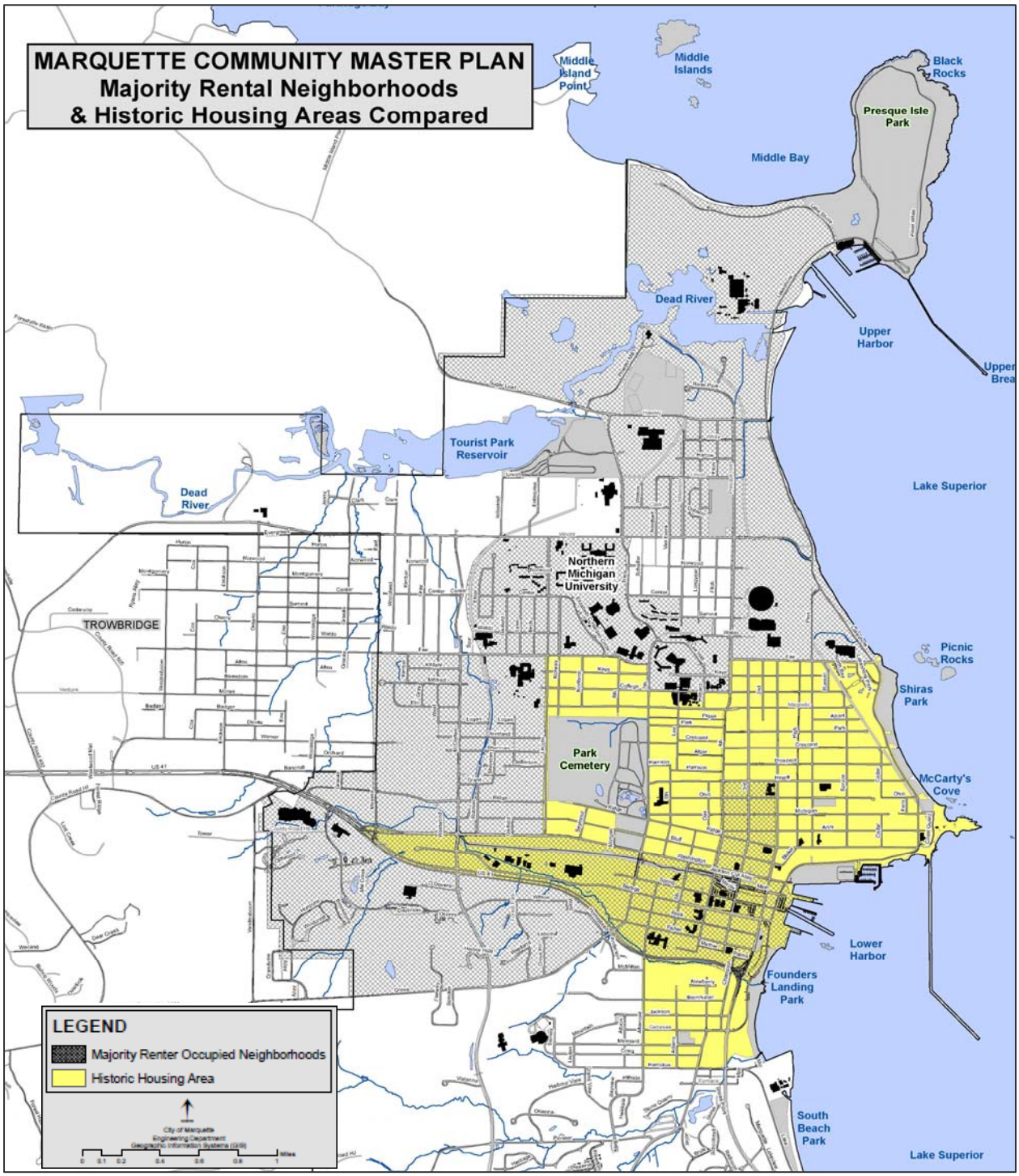
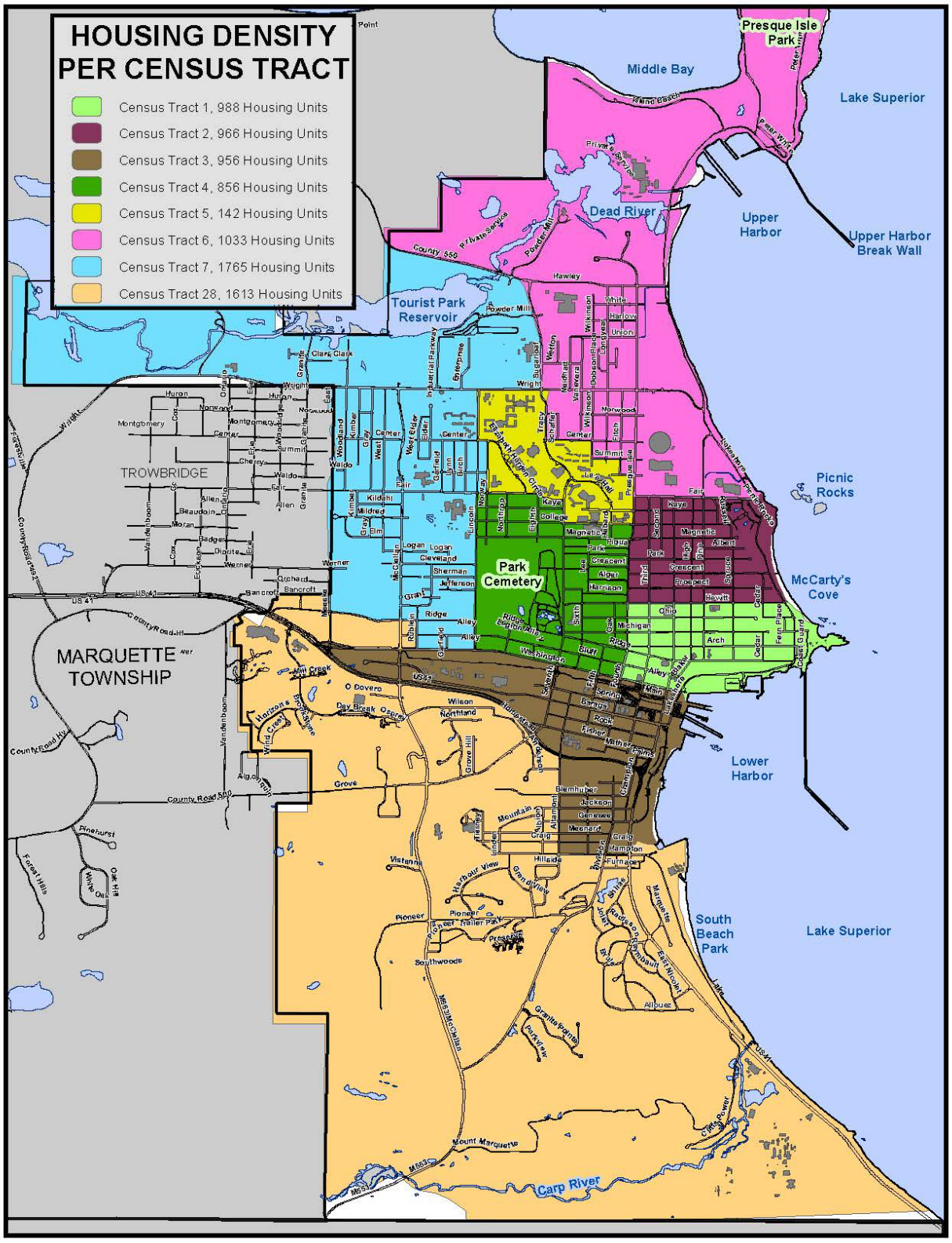


Figure 4.8: Population Per Square Mile (by Census Tract)



Housing Vacancies

Housing vacancy rates refer to the percentage of vacant housing units to total housing units. As straightforward as that sounds, determining if a unit is vacant or not is not always a simple decision for Census enumerators and verification often requires educated guesswork. Vacancy rates are intertwined with economic trends, particularly unemployment, which tends to be a leading corollary of vacancy rates. Generally, a vacancy rate of five percent (5.0%) is considered healthy. But, vacancy rates are generally higher for rental properties and neighborhoods than in majority owner-occupied neighborhoods, thus creating the need to break down the data.

Table 4.11, sourced from 2010 Census data, reports that Marquette had an average vacancy rate of 5.4 percent, though the rates vary considerably in different areas of the city. The lowest vacancy rates were reported from Census tract #5, which is mainly the NMU campus area. The highest vacancy rates were reported in the tracts #3 and #4, which include the downtown core and the surrounding neighborhoods on both sides of the valley in which the urban core is built. Both tracts 3 and 4 have a high percentage of historic homes and homes that are currently rental properties, and tract 3 is majority renter neighborhood as shown in Table 4.10, while tract 4 is a majority owner neighborhood.

In amenity-rich, vacation communities like Aspen, CO, second homes may be a large share of the housing stock, and vacancy rates may be much higher than considered healthy. In high-demand areas such as college towns, it could take 100s of new housing units to raise the vacancy rate of rental property from near zero to five percent. While this analysis does not consider rental property alone, it is evident from this information that there are very few rental vacancies in the City, which is a common anecdote heard by staff in the Planning division.

Table 4.11: Housing Vacancy Rates in 2010

VACANCIES	Tract # 1	Tract # 2	Tract # 3	Tract # 4	Tract # 5	Tract # 6	Tract # 7	Tract # 28	All
TOTAL UNITS	59	49	82	66	2	43	58	93	452
For rent	26	15	33	20	1	21	29	26	
Rented, not occupied	2	0	3	3	0	1	0	4	
For sale only	8	9	4	13	0	7	10	30	
Sold, not occupied	0	5	0	2	0	3	1	1	
Seasonal, recreational, occasional use	14	14	6	11	1	7	8	23	
Other vacant	9	6	36	17	0	4	10	9	
Housing Units	988	966	956	856	142	1033	1765	1613	8319
VACANCY RATE	**6.0%**	**5.1%**	**8.6%**	**7.7%**	**1.4%**	**4.2%**	**3.3%**	**5.8%**	**5.4%**

Important National and State Trends in Housing

According to the US Census Bureau, between years 2000 and 2010, "the housing industry was impacted by various events and conditions that have resulted in noticeable shifts in housing characteristics within many parts of the nation" (*Housing Characteristics 2010*; 2010 Census Brief, Oct, 2011). Marquette was not immune to the impacts that are discussed below, but in contrast to some of the hardest-hit areas, including the Detroit and Flint metro areas, there were relatively minor negative impacts locally.

One of the most dramatic national housing trends in recent years was the increase in *vacant housing units*. In year 2000, the Census reported 10.4 million vacant units. By 2010 there were 15 million vacant units, a 43.8 percent increase. Nationally, housing *vacancy rates*, which refer to the percentage of vacant housing units to total housing units, went from 9.0 percent in 2000 to 11.4 percent in 2010. The disparity between the 26.7 percent increase in vacancy rates to the 43.8 percent increase in vacant housing units was due mainly to the increase in new housing stock, which far exceeded demand. The national housing inventory increased by 15.8 million units between 2000 and 2010, a 13.6 percent increase. The 2010 Census reported 131.7 million housing units, 116.7 million of which were reported as occupied. The millions of unoccupied new homes was one result of the home mortgage investment scandal that had many negative impacts on the housing and home lending industries, and the national economy.

Homeowners outnumbered renters in 98.5 percent of counties (or equivalent areas) in the 2010 Census data. Of four major regions, the Midwest led in homeownership, with a 69.2 percent rate of ownership. Michigan was a national leader in homeownership, having the third highest homeownership rate among the states (72.1 percent), the top ownership among all counties (Keewenaw, 89.8 percent), and three of the top ten metropolitan areas for homeownership.



These town homes on Lakeshore Blvd. were opened to occupancy in 2004.

Housing Quality Survey of Majority Renter-Occupied Neighborhoods

In the Spring of 2013, Planning/Zoning staff members surveyed the housing condition of four selected target areas within the City of Marquette's "Majority Renter-Occupied Neighborhoods" (as indicated on Figure 4.7). The four areas selected had the highest concentration of poor quality housing reported in the survey conducted for the 2004 Community Master Plan. Figure 4.9 shows the four selected target areas against the background of the 2003 housing quality survey. More robust survey criteria and protocols were put in place with the recent survey, as the four target areas are intended to be monitored over time for change in condition.

Each new update of the Community Master Plan should examine these four areas using the same criteria and survey methodology (described in Appendix D). This is a random sample methodology that provides a general idea of the quality of housing in the predominantly rental neighborhoods of Marquette. The areas of the survey may be expanded or shifted as is appropriate.

Figure 4.10, below, shows details of Target Area 3 from the 2013 housing quality survey, as an example of how each area was rated. Survey results are reported in Table 4.12 on the following page.

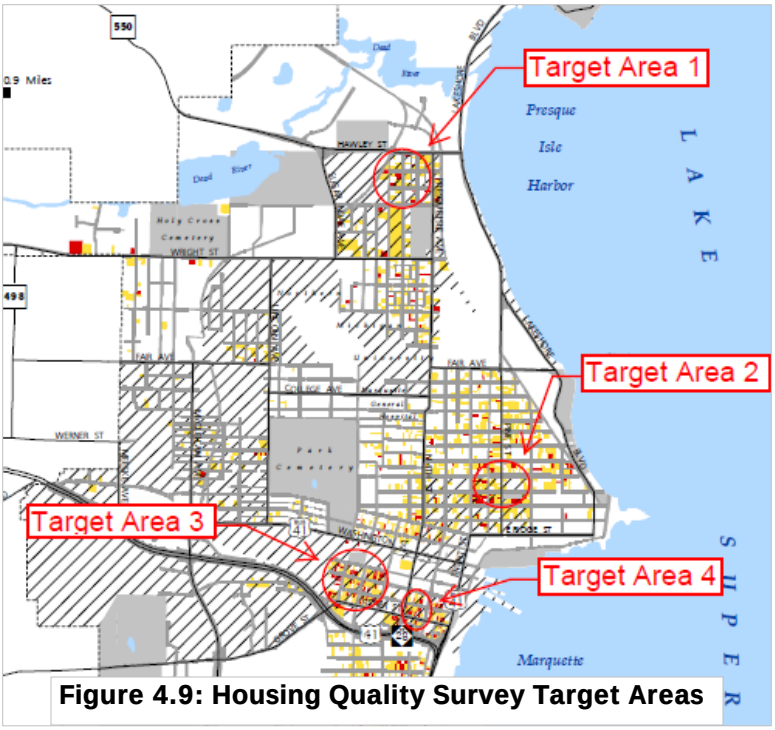


Figure 4.9: Housing Quality Survey Target Areas

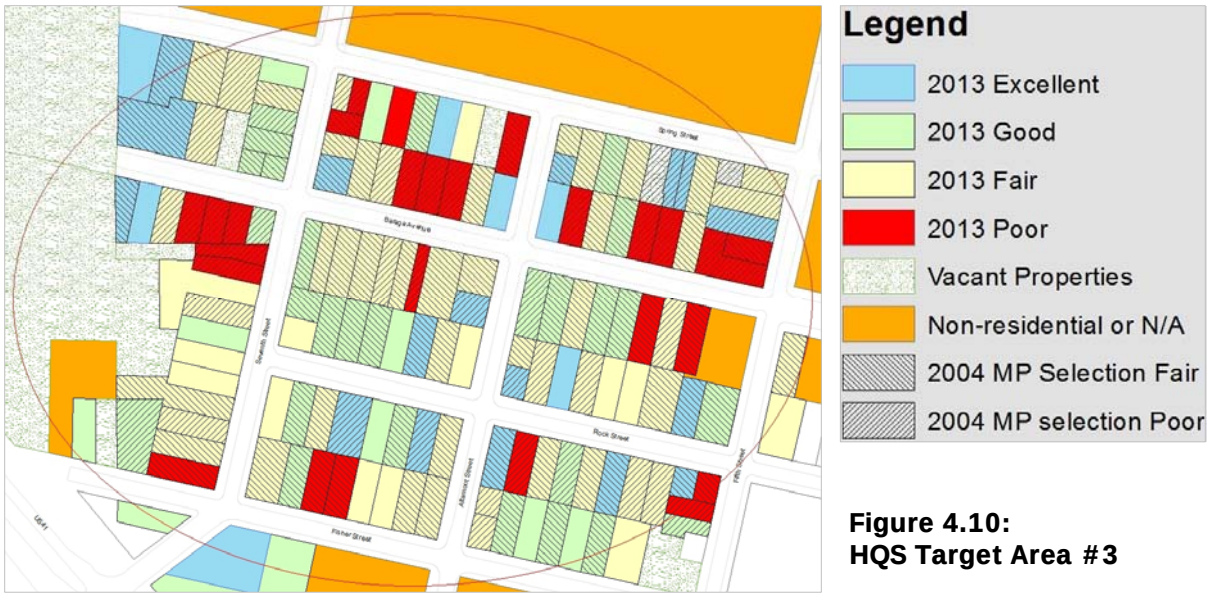


Figure 4.10: HQS Target Area #3

Table 4.12: Housing Quality Survey Results

Target Area	Excellent	Good	Fair	Poor	Total
Area 1-Number	17	32	35	8	92
Area 1-Percent	18.5%	34.8%	**38.0%**	8.7%	100%
Area 2-Number	31	42	64	18	155
Area 2-Percent	20.0%	27.1%	**41.3%**	11.6%	100%
Area 3-Number	24	37	60	27	148
Area 3-Percent	16.2%	25.0%	**40.5%**	18.2%	100%
Area 4-Number	5	19	22	15	61
Area 4-Percent	8.2%	31.1%	**36.1%**	24.6%	100%

Table 4.12 shows the number and percentage of houses in each Target Area, by category from excellent to poor, as rated by staff. The predominant category for each Target Area is shown in bold. In total, 456 houses were evaluated, which is slightly more than 10 percent of the rental housing units in the City, as reported in Table 4.9 (on p. 4-14). Comparisons to survey data from 2003 follow on the next page.

Comparison to Assessing Data

A review of the Assessing department's housing condition ratings for each area was also conducted as a way to verify the results of the survey. The depreciation standards that the Assessing department uses have 8 categories of conditions ranging from Excellent to Unsound. The description for good is "Minor deterioration visible, slightly less attractive and desirable.", and the average description states, "Normal wear and tear is apparent, average attractiveness and desirability." Assessing staff found that the average of the housing conditions for the target areas are as follows:

- Target Area 1 was Average (the area was visited by staff from 2008 to 2011)
- Target Area 2 was Good (the area was visited by staff from 2005 to 2011)
- Target Area 3 was Average (the area was visited by staff from 2005 to 2011)
- Target Area 4 was Average (the area was visited by staff from 2010 to 2012)

If the same method is used to average out the ratings that the Planning/Zoning Staff completed, the results closely resemble the "averaged" findings of the Assessing Department:

- Target Area 1 averages as Good
- Target Area 2 averages as Good
- Target Area 3 averages as Fair
- Target Area 4 averages as Fair

It is important to note that even though we are doing a comparison, this is not a true comparison, as the site visits to these test areas were completed at different times and with different methods, by the two reviewing groups (Assessing and Planning). Survey results are reported in the Table 4.13 on the following page.

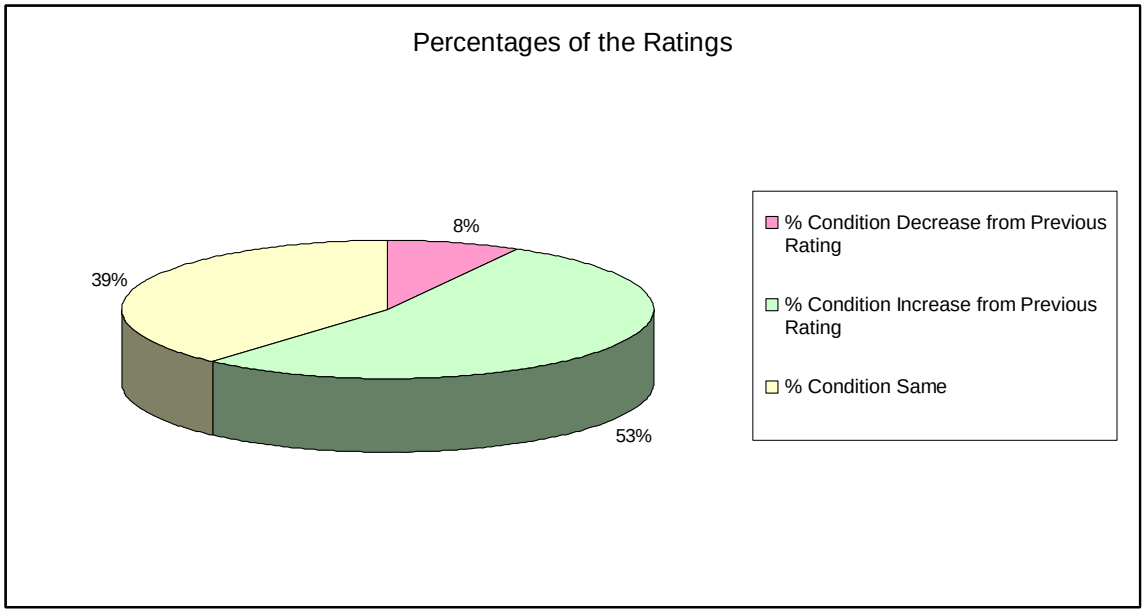
Table 4.13: Housing Quality Survey Comparison

Target Area	Total Number of Parcels that were previously rated in 2003	Number of Parcels that the Condition Decreased from Previous Rating	Number of Parcels that the Condition Increased from Previous Rating	Number of Parcels that the Condition Remained the Same
# 1	40	4	24	12
# 2	103	8	58	37
# 3	118	9	61	48
# 4	48	4	21	23

Target Area 1 is within the northern rental area of Marquette. 40 parcels in this area were previously rated. There was a 61% increase in conditions compared to the previous ratings; 29% of the homes remained the same; and 10% of the homes decreased from the previous ratings. Area 2, in the eastern rental area of Marquette, realized a 56% increased in condition; an 8% decrease in conditions; while 36% of the homes remained the same condition. Area 3, close to the downtown area and US 41, saw a 51% increase in conditions; an 8% decrease; and 41% of the parcels were in the same condition. In Area 4, also near downtown and US 41, there was an 8% decrease in condition ratings; a 44% increase in condition from the previous rating; and 48% of the parcels remained in the same condition rating.

Figure 4.11 graphically displays the averages of all four target areas and 309 homes evaluated. There was an impressive 53 percent increase in the number of homes that were improved during the past decade, and less than ten percent that showed deterioration from their previous condition. One of the factors that may have played a part in the improved properties was a severe storm in June, 2007 that produced widespread hail. Many homes were severely damaged, with siding and roof replacement/repairs following.

Figure 4.11: Average Change in Housing Quality of Surveyed Rental Neighborhoods



Student Housing

Northern Michigan University is an asset for the Marquette community in many ways. The university brings employment, cultural and educational opportunities, and increased diversity to the area. But, it also creates challenging situations when dealing with the housing necessities of a large student population relative to the size of the permanent population.

The University had an enrollment of 9,159 students in fall 2012. The University had the facilities to provide on-campus housing for approximately 36% of those students, through their 2,643 residence hall living quarters and 609 on-campus apartments. The amount of on-campus student housing increased by approximately 438 units (15.5%) in the past decade.

The balance of the students (5,290 in fall 2012) are commuters to campus, selecting off-campus housing, with roughly half (2,625) of that number reporting a 49855 zip code in fall 2012. While it is practically impossible to state with certainty how many NMU students are living off-campus in the City on a given day during the standard academic year, it is likely that the number is close to 2,000. Off-campus housing in the City is primarily in rental apartments and converted houses throughout nearby neighborhoods (see Figure 4.8).

Unfortunately, the houses occupied by students are often owned by absentee landlords who have allowed the homes to fall into disrepair. In the preceding section regarding housing quality it was pointed out that the selected target areas for study were selected due to the high concentration of poor-quality housing, and that there is a correlation between poor-quality housing and rental housing (majority-rental neighborhoods). Poor-quality housing, coupled with congested vehicular parking and traffic, and noise issues, often results in a perceived decrease in the quality of the neighborhood. Residents of owner-occupied homes face a general reduction in their quality of life, and lower property values, when these circumstances prevail.

Three areas of resident complaints emerged from comments collected as part of the Master Plan survey in 2003, and these are still considered relevant given the aforementioned data.

- Low quality housing and lack of maintenance (mentioned 46.3% of the time)
- Traffic and parking problems, particularly related to students parking on the lawns (mentioned 19.4% of the time)
- Noise and disruption (mentioned 16.6% of the time)
- Other, lesser-heard complaints included the lack of affordability, the number of people living in these student apartments, and the proliferation of these rental houses throughout existing neighborhoods.

Affordable Housing

The National Low Income Housing Coalition defines "affordable housing" as that which costs no more than 30% of a family's income. The American Planning Association defines affordable housing as housing "in which mortgage, amortization, taxes, insurance, and condominium or associations fees, if any, constitute no more than 28% of such gross annual household income." For rental housing this same definition applies, with the



exception that 30% of household income can be allocated to cover rental costs.

Various jurisdictions and agencies employ different formulas to define affordable housing to meet various policy goals. For example, many local governments around the nation now have programs to support "workforce housing," i.e. housing for middle-income individuals and families who struggle to find housing they can afford in communities where housing prices often increase faster than the rate of inflation. Having housing available that is affordable, or inexpensive, provides an opportunity for people and families of modest means to be able to live and work in a place without having to budget a lot of money for transportation. Employers benefit when employees can reach work without a long commute, and with frequent lake-effect snowstorms this is particularly relevant to Marquette.

The Census Bureau's *American Community Survey* (ACS) collects and calculates mortgage and income data to produce information regarding monthly owner costs and estimated rates of income dedicated to housing expenses. Table 4.14, below, displays ACS estimates of housing affordability in each Census tract for the median household income and its relationship to the median home value in that tract. In every tract analyzed, the median home prices seem to be in alignment with the median household income in that area. Because this analysis uses aggregate data and median values for its calculations, it does not, of course, account for households whose income may be below the median and are indeed finding it difficult to find affordable housing in the City.

Table 4.14 – Housing Affordability by Census Tract

Census Tract	Median Monthly Owner Costs as a Percentage of Household Income
1	20.6%
2	17.8%
3	17.0%
4	16.2%
5	10.0%
6	14.7%
7	15.5%
28	20.1%

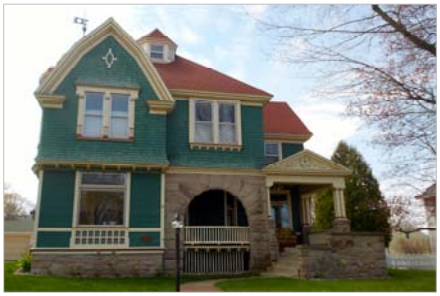
Source: American Community Survey 5 Year Estimates – 2011

An analysis of Census data simply gives a snapshot of the housing situation at that point in time, and does not address potential trends that may indicate a lack of affordable housing in the future. When the real estate market drives home prices upward, and as higher-end residential units are developed, there is often a lack of homes that fall within the lower price range. Community residents reflected this concern during visioning sessions in 2012.

Protection of Historic Homes

Marquette residents recognize and greatly appreciate the unique and historic architecture that is prevalent throughout their Downtown and many residential areas. When queried about their feelings on the protection of historic homes and buildings within the City in 2003, an

overwhelming majority (92%) of residents supported strategies that would help maintain these historic structures. Due to their proximity to Marquette's original downtown, most of these homes and buildings are located in the City's central core (See Figure 4.7). Residents are particularly committed to maintaining the historic character of their Downtown, ensuring it remains, as one resident put it, "a city with character".



There are generally two approaches that can be used to provide protection for historic buildings; the declaration of a historic district, and the use of a historic overlay zone. Both approaches have potential applications within the City of Marquette and are described in more detail below.

1) Historic District:
This approach calls for the designation of a specific physical area as a historic district. This is often applied to neighborhoods that exhibit a high ratio of homes built prior to 1940. This mechanism regulates changes through the use of a historic preservation commission and a series of guidelines that specify the types of changes that are allowable. Owners seeking to make changes to the exterior of a home located within the district would be required to have the proposed changes approved by the Historic Preservation Commission. This approval process would ensure that the changes being considered were appropriate and in keeping with the historic aesthetic of the area.

2) Historic Overlay Zone:
Unlike the creation of a historic district, whose institution requires the creation of a new review board, a historic overlay zone uses existing zoning mechanisms to regulate changes. Similar to other zoning designations, guidelines would be drafted for the historic overlay zone that would outline the characteristics that buildings within this district would need to follow in order to be in compliance. Changes made that don't meet these guidelines would result in that building being in violation of its zoning. This type of protection mechanism would be particularly useful in Marquette's Downtown district. An inventory of the existing characteristics would be taken to define what makes the area "historic". These characteristics might include details such as the required setback, the amount of window area on the first floor, and acceptable methods or materials to use when maintaining or remodeling a building. Once these characteristics become part of the zoning ordinance, owners wishing to make a change to their building would need to comply, or risk violating their zoning designation. In situations where an owner feels circumstances warrant a deviation from the defined characteristics, a variance could be sought through the existing Zoning Board of Appeals.

Historic preservation is an important concern for many communities. As such, resources at both the state and national level are becoming more available in order to help with the process, or with the potential financial costs associated with participation in the programs. The following is a list of sources that may be helpful for residents seeking more information:

- Michigan Historic Preservation Network – www.mhpn.org
- Michigan State Historic Preservation Office – www.michigan.gov/mshda
- National Trust for Historic Preservation – www.nationaltrust.org

PROTECTING HOUSING and NEIGHBORHOOD QUALITY - RECOMMENDATIONS

Protecting quality of life is a top priority of Marquette residents, particularly as it relates to their neighborhoods. Three housing issues that residents find to be most critical are rental/student housing, availability of affordable housing, and the protection of historic homes.

Rental/Student Housing Recommendations:

- **Inspections** –78 percent of people surveyed in 2003 felt that the city should enact a rental housing inspection program, which it did through the creation of an ordinance. The program has two components, fire safety and zoning compliance review. The program requires landlords to meet specified requirements for life safety, in order to get approval of their registration permit. The Fire Department issues the permit approval.

  The zoning portion of the application requires adequate space and hard-surfaces for parking areas, as well as number of occupants in the structure, but failure of compliance with those requirements will not cause the permit to be denied if the property complies with the life safety portion. Because this enforcement of the parking requirements was tested and struck down in district court, Zoning Division staff can only record that the property is non-compliant with zoning, and then subsequently attempt to document violation of the Zoning Ordinance requirement for violations. This is not effective for the intended purposes of improving the appearance and quality of property, and the process should be re-evaluated to make it more effective.

- **City Regulation** – Marquette has enacted a property-maintenance ordinance to help control disinvestment in housing upkeep and infractions such as parking on non-paved areas and housing occupancy limits. Failure to comply with these ordinances results in a civil infraction. A full-time Code Enforcement Officer position was created in the Zoning Division in 2004, which has resulted in improved property maintenance throughout the City, and a dedicated person to address resident complaints regarding property upkeep. Marquette has several ordinances in place that are addressed by the Police Department to help regulate nuisances such as noise and civil conduct. Additional ordinances may be considered to enforce other norms.

- **Neighborhood Groups** – While the City may be able to assist in the regulation of some activities, others may require a more "grass-roots" effort on the part of individual neighborhoods. While this approach may be less successful in areas that are primarily student housing, it may be useful in areas that have a more balanced mix of student rentals and owner-occupied housing. The establishment of neighborhood groups, block leaders, and/or other housing improvement efforts may help to encourage involvement and increased respect from the student residents. There are many models that could be emulated, or something unique to Marquette may be effective.

- **Increased University Housing** – The periodic construction of additional on-campus housing should continue to be combined with efforts that focus on improving the quality of existing rental housing. The NMU Campus Master Plan shows intent to grow student housing to 41% of student body. This is a very positive goal for the University, and is likely to have positive effects on housing within the City if implemented.

Affordable Housing Recommendations:

The City of Marquette should encourage a variety of programs in order to facilitate the housing needs of households with modest incomes, including:

- **Encourage infill and re-use, as alternatives to "greenfield" development**
  Housing developments that are sited outside of City services and are sited on previously undeveloped areas are often referred to as "greenfield" sites. Such projects often incur higher costs since they require the construction of roads, sewers, and other services. These costs are often passed on to the consumer as a higher selling price. By encouraging reuse of existing buildings, or redevelopment on infill sites, developers are spared these additional costs. This savings can then be reflected in a more affordable selling price.

- **Encourage the construction of sustainable, energy-efficient buildings**
  The costs associated with operating and maintaining a home are directly related to the building materials and construction quality. Poor quality materials are more likely to require repair and replacement, requiring residents in such units to pay higher costs for routine maintenance. They will also pay higher utility bills for heating and cooling, which places a greater financial burden on those least likely to afford it. Well designed, sustainable buildings can require fewer materials for construction (thus lowering project costs for builders) and deliver lower energy and water consumption (reducing operating and maintenance costs for residents), and be more environmentally-friendly.

- **Encourage a diversity of new housing options**
  A variety of housing options, such as mixed-use (e.g. live above/office below); apartments, townhomes or condominium style units; as well as single-family homes can help to ensure there are housing options available at a variety of price points that are suitable for people at every stage of life.



Southwood Apartments under construction during summer 2013

- **Incentivize the development of affordable, sustainable, infill housing projects**
  Developers may gravitate toward up-scale housing because "development approval for it will be easy to secure, it involves little governmental entanglement, it is more prestigious, and it generates higher profits" (American Planning Assoc., 2003). Knowing these obstacles exist, the City should seek to work with developers considering affordable housing projects to ensure the development and approval process is not cumbersome. Incentives for infill construction and sustainably-built housing units (e.g. certified by LEED) may be considered, such as reduction/waiver of permit fees or tax abatement.

Historic Housing Recommendations:

In order to protect historic architecture in Marquette, the following options exist:

- **Create a historic overlay district**
  For the downtown area, as well as for neighborhoods that exhibit a high ratio of homes built prior to 1940 (see Table 4.9 and Figure 4.7), a historic overlay zone would be identified and development and re-development within that district would be guided by rules that supersede existing zoning. Rules may be promulgated through a variety of mechanisms and enforced through ordinances. An Ad-Hoc Historic Preservation Committee (HPC) could be formed with City Commission approval, and ordinances developed from the HPC's rules recommendations. For example, an ordinance could specify that if a property owner makes updates to his or her historic property (also defined by the HPC), they must follow guidelines as outlined in the "Historic Zoning Overlay." Appeal to the Board of Zoning Appeals to receive a variance could be made, as with any other provisions of the Zoning Ordinance.

- **Provide education regarding Preservation Easements**
  A preservation easement is a legal instrument between a home or business owner and the Michigan Historic Preservation Network (MPHN) that establishes perpetual protection for the property, by preventing inappropriate changes from being made to the historically significant structure. An easement gives the MHPN the ability to work with current and future owners of a historic property to safeguard its historic character, architecture, materials, and significance. Owners of an easement property are legally obligated to honor the terms of the easement, but retain actual ownership of the property. Easement donors make a gift to current and future generations when they voluntarily place perpetual restrictions on their historic property.

- **Support Neighborhood Associations and Neighborhood Plans**
  A city of Marquette's size could have several Neighborhood Associations (NAs), depending on the neighborhood size. Residents are highly knowledgeable about the issues affecting their neighborhoods, and are often in the best position to recommend innovative solutions that fit the needs of their particular area. Groups to advocate for the interest of an area that exceeds typical neighborhood size - such as "the East Side" or "West Central Downtown" - could be organized as well. These can be totally "grass roots" efforts, but City staff may help facilitate/coordinate where City departments are concerned, and provide some technical assistance or research for interested residents.

  According to walkability expert, Dan Burden, small-scale neighborhood plans have a number of significant advantages, such as:
  - Creating a specific vision for each neighborhood, which enables city planners to make decisions that best reflect the desires of the local community.
  - Allowing for the identification and training of citizen leaders who can help answer questions and alleviate the fears of their fellow neighbors when an area is facing a significant change.
  - Increasing public involvement in the City's planning process, and helping citizens feel ownership towards the determined solutions.

Comprehensive Recommendation:

- **Engage in *Placemaking* activities that support neighborhoods**
  The City should stay engaged with the "placemaking" strategies that are being promoted by the the MIplace Initiative (via the Michigan Sense of Place Council), and various state agencies that oversee housing, land use, economic development, and transportation. Placemaking is essentially actions a community takes to improve the aesthetic, physical, social, and economic conditions of an area/district, in a way that is distinct from neighboring communities, so that a unique "sense of place" is created and maintained. According to MIplace, placemaking is "...a simple concept that people choose to live in places that offer the amenities, resources, social and professional networks, and opportunities to support thriving lifestyles" (http://miplace.org/about-miplace).

  These quality-of-life priorities have been a major focus of urban planning here in Marquette during the past two decades, but now that the Placemaking movement has become entrenched as a strategy of the State of Michigan and is nationally recognized, more resources are available for planners at all levels to utilize in helping to create more prosperous, sustainable communities.

Economic Development Chapter 5

The first Community Master Plan adopted by the City of Marquette was published in 1951, the first product of the Planning Commission, which had itself just been created two years earlier. The 1951 "City Plan" contained a thirteen page chapter entitled "Financial History of the City of Marquette," and the focus of the chapter was on establishing a viable capital outlay budget as part of the annual expenditures of the municipality. This was an initial step in creating what would become a Capital Improvements Plan (CIP; see p. 2-12 and Appendix F for more information on the CIP).

Since that time, succeeding Community Master Plans have included a chapter that addressed the local economy, providing data and analysis of topics such as "potential job growth," "market opportunities," and "economic diversification." Initially a summary of the financial condition of the City, the Community Master Plan evolved to address the broad scope of economic activity throughout the City and within the region, which was common for such "comprehensive plans" for communities across the nation.
This Community Master Plan departs from that tradition due to recent changes to the City Charter, which is the "Constitution" for the operation and maintenance of our municipal government. The City Charter, in Section 13-6, now decrees that:

> "(a) In order to promote the standard of living and the economic health of the city, the city manager with guidance and direction from the city commission shall establish an economic development plan for the city to be approved and adopted by the city commission. The plan shall articulate goals including the elements and recommendations of the planning commission and the city strategic plan. To enhance human capital, competitiveness, environmental sustainability, health, safety and well being the plan shall reflect the preferences of the citizens of Marquette and draw upon resources and programs provided by educational institutions and state and federal agencies. (b) An assessment and evaluation process along with a periodic review of the plan shall be developed. The first recommendation of the city manager to the city commission shall be no later than two years after the effective date of this charter. (c) Implementation of recommendations from the economic development plan shall be established by city ordinance. Funding for economic development recommendations authorized by the city commission shall be part of the annual budget."

Given that it is now the task of the City Manager to create an Economic Development Plan (EDP) that will be a comprehensive, stand-alone document, with direction from the City Commission, this Community Master Plan (CMP) will only - in Appendix I - present the portion of that EDP that provides recommendations. Economic data and analysis will be included in the EDP document, but not this volume of the CMP. Updates to the EDP (recommendations and/or data) will be amended into the Community Master Plan as updates to the EDP are approved by the City Commission.

Section 13-6 (a) of the Charter indicates that recommendations of the Planning Commission are to be articulated in the EDP, and the various recommendations of the Community Master Plan provide ample choices for inclusion in the EDP. The EDP recommendations provided in Appendix I have been provided by the City Manager as proposed for the first iteration of the EDP as directed by the City Charter.



TRANSPORTATION - ACCESS and MOBILITY

Introduction

This chapter presents an overview of the current transportation system in Marquette and regionally. City planning is concerned with two major issues above all others - transportation and land use. These two areas of urban affairs are deeply intertwined, and as cities evolve it may not be obvious if transportation decisions or land use decisions have had greater impact on the form of the built environment. Transportation decisions will affect land use options and vice-versa. Transportation is often thought of in terms of infrastructure and vehicles, but those are only physical manifestations of the much more complex set of related physical design items and issues, as this section of the Master Plan will reveal.

This analysis identifies regional transportation systems, major transportation corridors and key intersections throughout the city, as well as bicycle, pedestrian, and transit facilities. This section focuses on improvements to City street corridors and for various modes of transportation. It also provides a series of general recommendations that, when applied consistently, can increase the efficiency, effectiveness, and comfort of Marquette's transportation network. This section will be amended to include a more comprehensive analysis of City street intersections and corridors once a planned traffic study has been completed and analyzed.

Regional Transportation Network

An examination of the City transportation network should first consider its context within the larger network of regional transportation facilities. The following figures provide mapped highway, rail, and airport facilities in the surrounding region.

Figure 6.1: Regional Surface Transportation Network

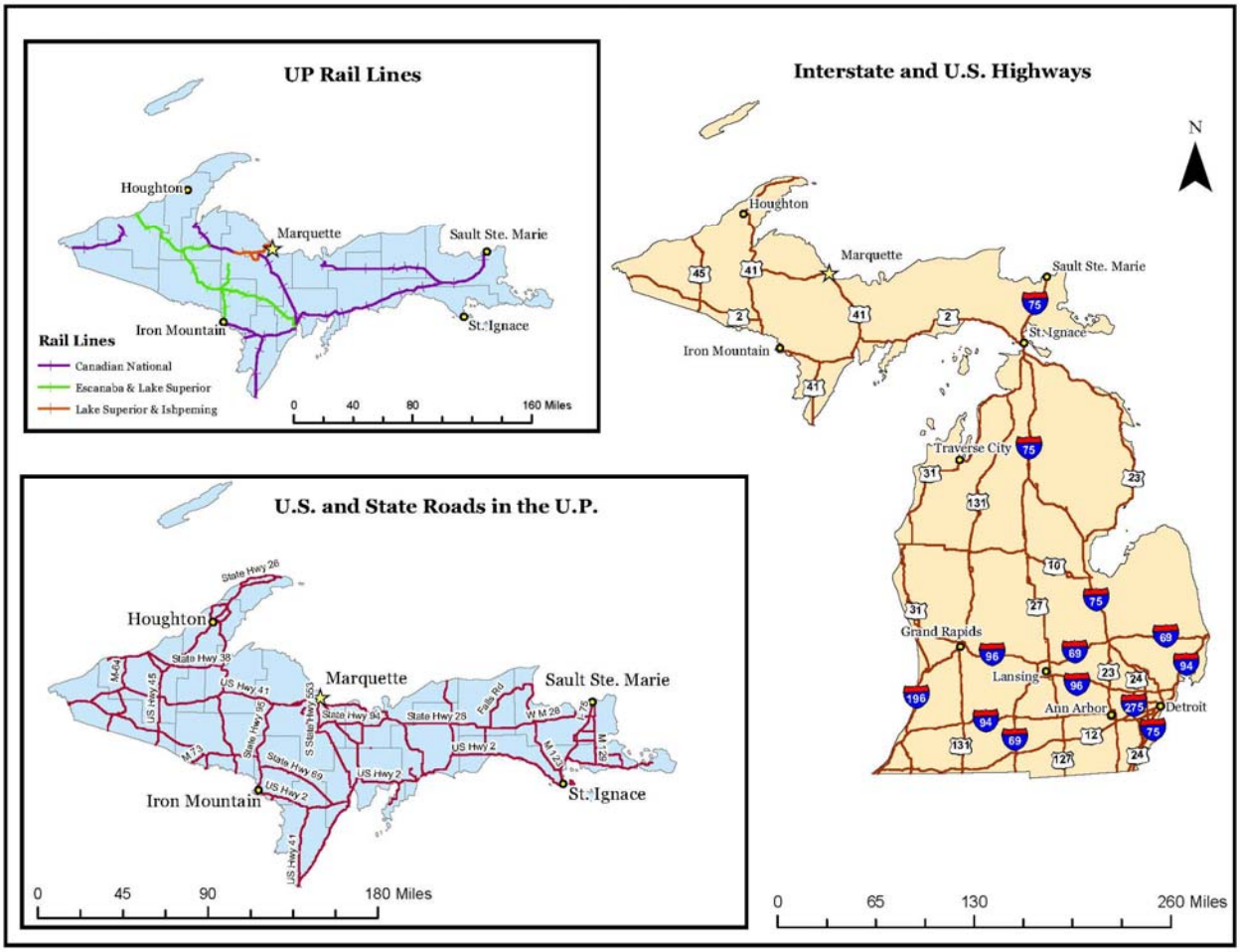
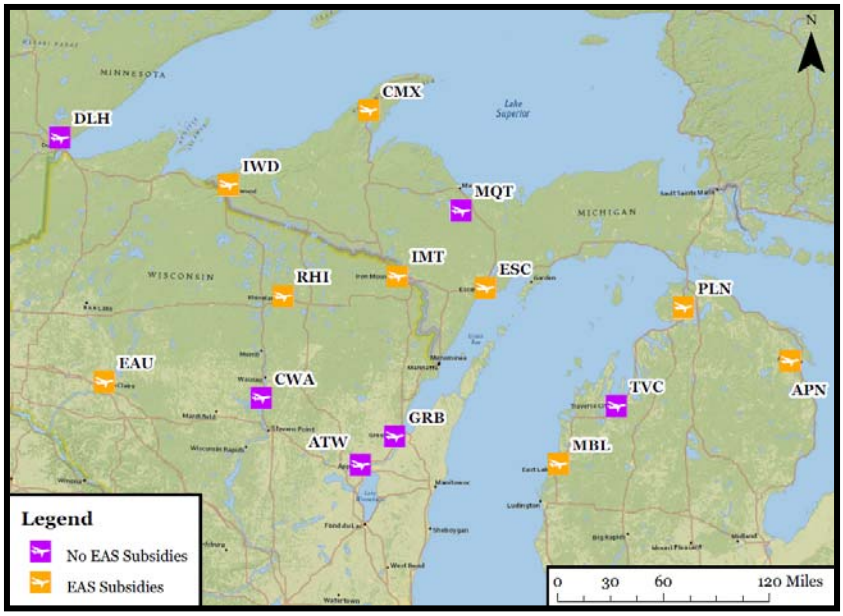


Figure 6.2: Regional Airports



Passenger rail service is not currently available in Upper Michigan, but there is connecting bus service in some of the largest cities. The closest Amtrak passenger rail station is currently in Milwaukee. The following table displays driving distances and times for significant regional cities.

Table 6.1: Road Distance and Driving Time to/from Selected Cities

City	Distance (Miles)	Approximate Average Driving Time
Houghton, MI	100	1 hr, 52 min
Sault Ste. Marie, MI	164	3 hours
Green Bay, WI	177	3 hrs, 16 min
Duluth, MN	252	4 hrs, 43 min
Traverse City, MI	268	5 hrs, 12 min
Milwaukee, WI	295	5 hours
Madison, WI	311	5 hrs, 30 min
Chicago, IL	384	6 hrs, 32 min
St. Paul, MN	383	6 hrs, 43 min
Lansing, MI	396	6 hrs, 24 min
Detroit, MI	455	7 hrs, 23 min

Water transportation in and out of Marquette is overwhelmingly related to freight movement, which is addressed further on p.6-13, and in the Waterfront Land Use section of the document (see Chapter 9). Personal water transportation is limited to private boats and small cruise ships, which primarily use the lower harbor and two marina facilities described in the Waterfront Land Use section of the document.

Local air passenger and freight transportation is handled by Marquette's Sawyer International Airport. Sawyer Airport faces challenges to its ongoing viability however, mainly because it does not receive Essential Air Service (EAS) subsidies. The following information was taken from the November 2012 report by Fred Kotler, "Passenger Air Service in Michigan's Upper Peninsula: Overview and Analysis":

- Marquette's Sawyer International made up 36.4% of all air traffic from the U.P. in 2012, with 2011 annual enplanements reaching over 50,000 (a strong marker for a non-hub airport).
- Marquette's high passenger load factor (70-80% seats filled in each flight) and cargo volume (39% of the U.P market share in 2011) demonstrate the vital necessity of continued air service for economic, communication and travel needs.
- Scheduling presents a second issue as only two carriers offer trips to Detroit and Chicago, with the earliest arrival into Marquette in the afternoon from Chicago and evening from Detroit, neither conducive to business travel needs.
- Marquette's Sawyer International will remain outside of the EAS program due to its service by two carriers in early 2012 when the reauthorization for the EAS eligibility program requirements occurred through federal Congressional legislation.
- As the only non-EAS U.P. airport, airfare from Sawyer continually surpasses fares from other regional airports, creating a disincentive for customers and leading to

passenger leakage, the growing trend of passengers traveling to regional hubs to fly cheaper. The fare average for Sawyer in the 2011 fourth quarter was $508.57 (in 2012 dollars) while Houghton's was $292.49.
- Excluding Marquette's Sawyer International, all Upper Peninsula airports receive subsidies through the EAS program: Houghton-Hancock, Sault Ste. Marie, Escanaba, Iron Mountain/Kingsford and Ironwood. Regionally relevant, Rhinelander, WI, also recently received an EAS subsidy.

Essential Air Service Program and Requirement Criteria:
- Communities must be more than 70 miles away from a large (Minneapolis, Detroit) or medium (Milwaukee) airport hub.
- All U.P. communities, including Marquette, rank well above the national average on the Aviation Index, a measurement used to determine distance from regional hub airports.
- Subsidies cannot reach over $1000/passenger regardless of distance to proximate hubs.
- If within 175 miles of a regional hub, the daily enplanements must measure at least 10 (all U.P. airports are more than 175 miles from a regional hub so this is non-applicable).

Lack of Proximity to Alternative Transportation:
- The U.P. contains no passenger rail and limited commercial bus service, creating a dependence on airline service. Nearest rail passenger access (Amtrak) for Marquette is Milwaukee, more than 300 miles away. One bus service runs out of Marquette daily to Chicago, departing at 2:25am EST, arriving at 1:30pm CST, a trip of more than 12 hours for a fare of around $80-100.

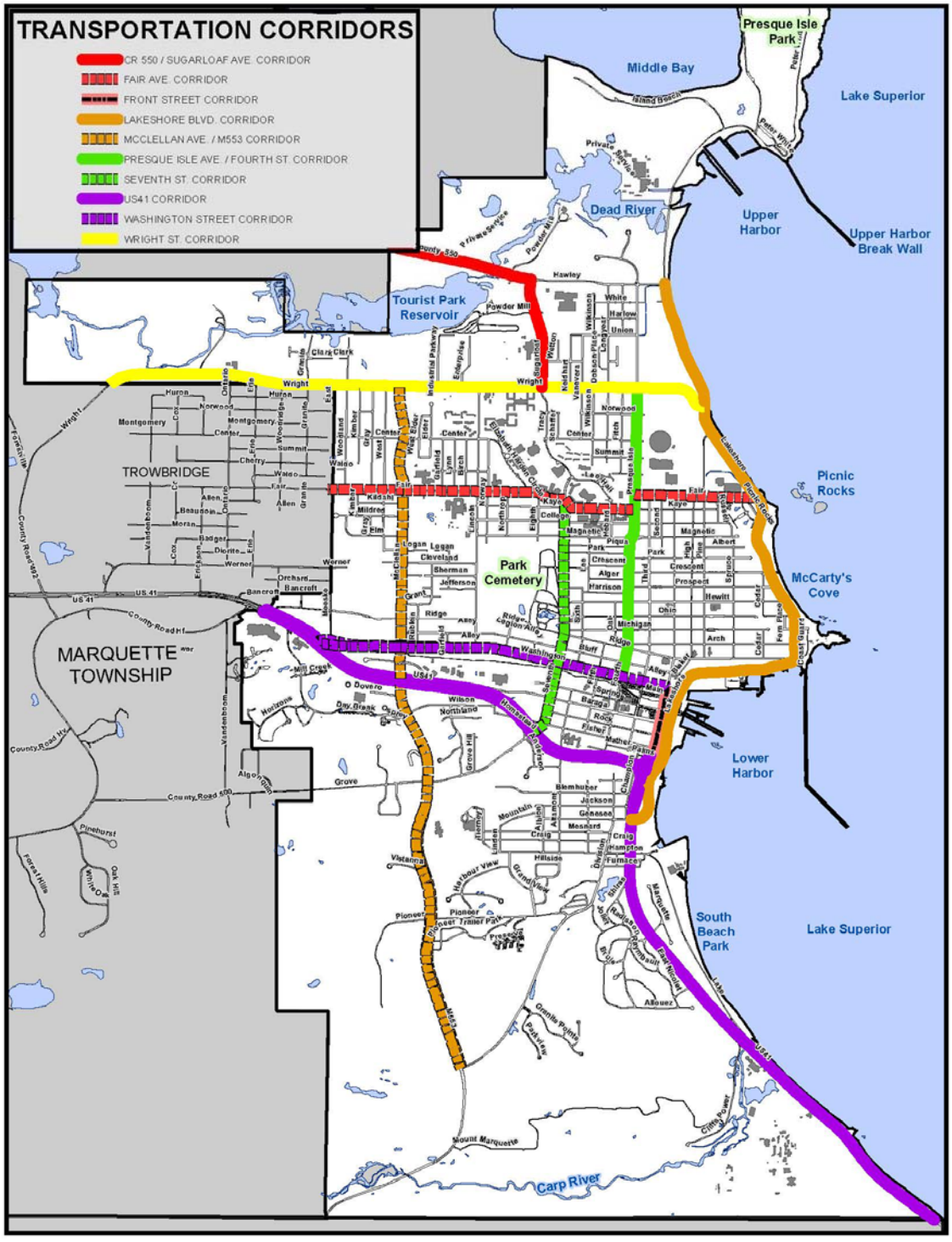
Threats to Small Community Air Service:
- Industry threats include a dismantling of the 50 passenger jet service currently used by carriers throughout U.P. airports due to increasing fuel costs (and expected to rise).
- Trends of access and regionalization force carriers to concentrate service to hub centers, eliminating local markets.
- Research done by private consultants such as the Boyd Group International and the Sixel Group advocate for small communities to create contingency plans to assure the continuation of air service, outlining possible regional collaboration.

City Street Transportation Network

Figure 6.3, on the following page, shows the major transportation corridors in the City. And Figure 6.4, on p.6-6 displays the road network, including sidewalks and paved paths for bicycle and pedestrian travel. The hierarchical classification system used categorizes roadways according to their intended functions, for property access and/or mobility (travel service), as well as their design characteristics related to intended traffic volumes. A description of each of these categories is displayed in Table 6.2, on p.6-6, along with the length of those road types in the City street system.

US-41/M-28 is shown as an "urban principal arterial" road, and this along with M-553, are managed by the Michigan Department of Transportation. M-553 begins at the 41/28 highway bypass and connects the City of Marquette with the County Airport and Gwinn, to the south. North of the highway bypass, M-553 becomes McClellan Avenue and is managed by the City. More discussion of specific considerations for the management and improvement of the City street network begins on p. 6-24.

Figure 6.3: Primary Transportation Corridors



Because the US-41/M-28 highway is routed around downtown Marquette through the Whetstone Brook valley (see Figure 6.4), the grid system of downtown streets has remained intact and the near-downtown residential districts have been spared much of the highly deleterious effects that urban highways are well known to have on cities.

Figure 6.4: City Street and Path Network

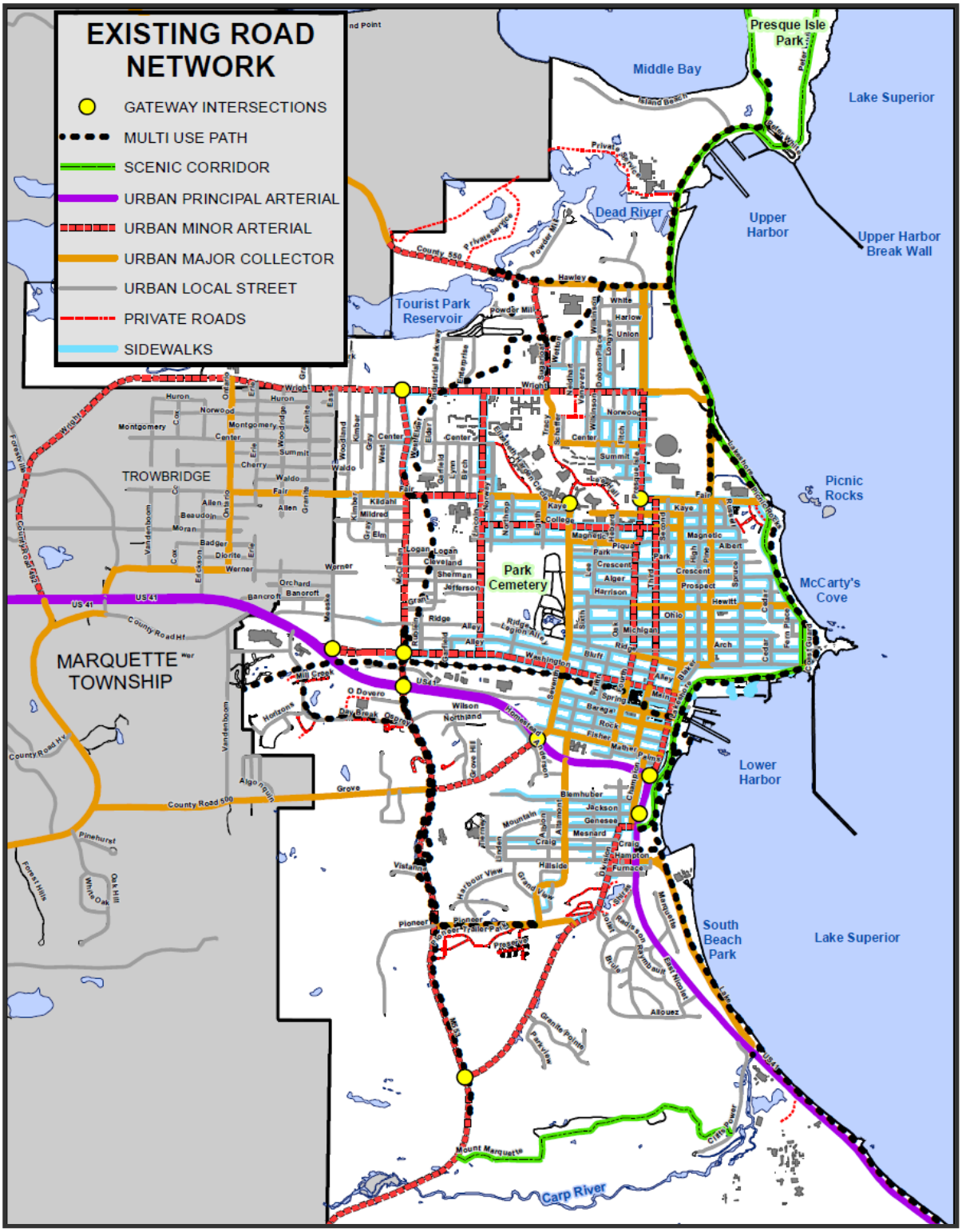


Table 6.2: Description of Street Classifications

Category	Example	Characteristics	System Length
Urban **Principal Arterial**	U.S. 41/M28	• Serves major centers of activity • Accommodate the longest trips on the network, typically ›8 miles • Emphasis is focused on mobility rather than access • Travel speeds of 55 mph or more. • Freeway/Expressway Design	**7.6 miles**
Urban **Minor Arterial**	Washington Street Wright Street	• More emphasis on mobility than access • Connects with the Urban Principal Arterial • Typical trips ›5 miles at 55 mph • Distributes travel to smaller areas • 2-lane and multi-lane rural highways	**19.4 miles**
Collector	McClellan Avenue Fair Avenue Altamont St.	• Emphasis is balanced between mobility and access • Typical trips less than 5 miles • Collects traffic from local roads and transfers this traffic to the arterial system • In some areas, i.e. downtown, the street grid may all be collectors • Travel speeds of 30-45 mph • 2-lane streets, multi-lane urban roadways	**18 miles**
Local	Mesnard St. Ridge Street Garfield St.	• Permits direct access to abutting lands; connects to higher order systems • Accommodates trips ‹2 miles • Travel speeds of 20-30 mph • Through traffic movement is deliberately discouraged	**59.4 miles**
Scenic Corridor	Lakeshore Blvd. Lake Street	• Connects community facilities • Provides viewshed opportunities • Performs as Urban Local Road, but some segments may serve as an Urban Collectors	**8 miles**
Gateway/Image Intersection	U.S. 41 & Front Street Washington Street & McClellan Ave	• Intersections, which serve as, entrance points to the community, a special district, or a community facility • May carry significant levels of traffic and turning movements, but the role of the intersection is equally weighted between traffic movement and aesthetic image	**10 intersections**
Private/Institution	Elizabeth Harden Drive	• Permits access to private developments and other public institutions (Northern Michigan University) • Lowest level of mobility • Through traffic is deliberately discouraged	**7.3 miles**

Complete Streets

The undesirable consequences of decades of building towns and neighborhoods almost exclusively around car travel are now understood, and a balance is being sought through more enlightened policies. The term "complete streets" has come to mean streets that are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets, regardless of how they are traveling. Complete Streets make it easy to cross the street, walk around town, use a transit bus, and bicycle to work. In May 2011 the City of Marquette adopted a resolution supporting "Complete Streets Guiding Principles" (and supporting the State of Michigan's Complete Streets Initiative as outlined in Public Act 134, 135 of 2010). The text of this resolution is included in Appendix F.

The Complete Streets Guiding Principles "encourage planning, designing, constructing, operating, and maintaining transportation systems that promote safe and convenient travel by people of all ages and abilities," for the many benefits that are likely to accrue to the community as a whole and to local households and businesses. Streets that safely integrate multiple transportation choices, including walking, bicycling, public transit, and motor vehicles support community stability and resilience. Complete streets improve safety, encourage physical fitness by walking and biking, ease traffic congestion, help children and others who can't drive, are good for environmental quality, maximize street/road infrastructure investments, and hence make economic and fiscal sense.

There is no singular design prescription for Complete Streets; each street is unique and responds to its community context. Roadways that are planned and designed using a Complete Streets approach may include: sidewalks, bike lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. A "complete" street in a rural area will look quite different from a "complete" street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.



Pedestrians, cars, bicyclists, and buses may comfortably co-operate in a "complete street" corridor. As well as accommodating multiple transport modes, the pictured corridor provides narrow travel lanes and on-street parking, both of which slow traffic. The raised median protects pedestrians, while the pedestrian signal and crosswalk aid safe crossings. Clear signage on the corner and an attractive street create a welcoming environment for pedestrians.

Complete streets do not favor one form of transportation over another. Drivers, cyclists, runners, walkers, and transit patrons are all served safely. However, pedestrian and bicycle facilities are particularly important to include for the accommodation of transit patrons, who use street infrastructure to access bus stops and other services.

Active (self-propelled) transportation is critical for creating a healthy community. Fortunately, Marquette has a good network of pedestrian facilities in a half-mile radius around its commercial core, and has re-purposed nearly 20 miles of abandoned railways for paved bicycle and walking paths since the 1970s. Marquette was designated a silver level "Bicycle Friendly Community" by the League of American Bicyclists (LAB) in the fall of 2014, a boost from the bronze level achieved in 2010, through the hard work of a group of local volunteers that call themselves the "Marquette Bikeability Committee." In 2015 only three communities in Michigan had acquired a silver-level LAB designation.

While pedestrian and bicycle connectivity has clearly been a priority for the people of Marquette, transit service has been a low priority in planning efforts until very recently. The 2004 Community Master Plan included extensive walkability and bicycle network recommendations, many of which were implemented. But except for a few isolated mentions, there was no discussion of integrating transit as an important element of walk-ability. That is being addressed through a planning project that will be described in more detail in the transit section of this chapter.

The adopted Complete Streets Guiding Principles include a set of strategies for the implementation of relevant projects and programs, one of which is to include a mechanism in the Community Master Plan to track the implementation of Complete Streets facilities. Table 6.3, below, is that tracking mechanism. Not included in this table are the dozens of intersection curb ramps that have been completed during between 2011 and 2013 in conjunction with annual street reconstruction projects. Any adjacent intersection corners that do not have modern curb ramp design are upgraded through the annual reconstruction projects.

Table 6.3: Complete Streets Projects Since 2011

Project /Program	Location	When Completed
New Sidewalks	Altamont St. - Mesnard St. to Jackson St.	2013
	Mesnard St. - Tierney St. to Altamont St.	2013
	Wright St. - Neidhart St. to Vanevera St.	2013
	Wright St. - Neidhart St. to 260' west	2011
	N. McClellan Ave. - Fair St. to Wright St.	2012
	Center St. - McClellan Ave. to West St.	2012
Multi-Use Path Extensions	Lake St. - N. Hampton St. to Carp R.	2011
	Founders Landing - Boardwalk Spur	2011
	McClellan Ave. - Fair St. to path terminus	2012
	Lake St. - Carp R. to south City limits	2012
Iron Ore Heritage Trail Connector	W. end Baraga St. across "Soo Line" viaduct	2013
Pedestrian Safety Countermeasures	Intersection of Front St./Baraga St.	2013
Bicycle Lanes	Fisher St. to Baraga St.	2013
In-street Pedestrian Crossing Signs	Intersections: Front St./Spring St. and Lakeshore Blvd./Washington St.	2013
Blue Bicycle Racks in DDA District	34 locations as of spring 2013	2010-2013
Covered Bicycle Parking	Bluff Street Parking Ramp facility	2012

Level of Service and Roadway Design Capacity

In addition to these road classifications, evaluation tools are employed to identify the *Level-of- Service* (LOS) for a particular roadway, and for various transportation modes, and usually are associated with peak-hours traffic. The *American Association of State Highway and Transportation Officials* (AASHTO) uses the Roadway Level of Service (LOS) rating scheme, as shown in Table 6.4, to represent the quality of motorized transportation service provided by a specific roadway under specific traffic demands (e.g. peak-hour flow). LOS values are most often associated with levels of traffic congestion, and efficiency of the roadway. The LOS is determined by the ratio of the actual traffic volume to the established roadway capacity. In general, the higher the traffic volume, the lower the LOS.

Poor LOS can be short-term, as a result of temporary bottlenecks, or ongoing capacity problems, which is what is of most concern for our planning purposes. A transportation system in good balance will have roadways that are neither frequently congested, or always free of congestion (an "over-built" road).

Table 6.4: Roadway Level of Service Ratings

Level of Service	General Operating Condition
A	Free flow of traffic
B	Reasonably free flow
C	Stable flow
D	Approaching unstable flow
E	Unstable flow
F	Breakdown flow / Gridlock

Some congestion points to the viability of transit, ride-sharing, cycling, etc.. Generally, a level of service of "C" is considered adequate with a "D" rating also being acceptable in developed sections of urban areas. In addition to car and truck transport, LOS concepts have been applied to walking, biking, and transit modes as well. Generalized LOS levels for each mode, from the user perspective, are illustrated in Table 6.5. Capacity improvements should be prioritized based on an existing or anticipated LOS D or worse.

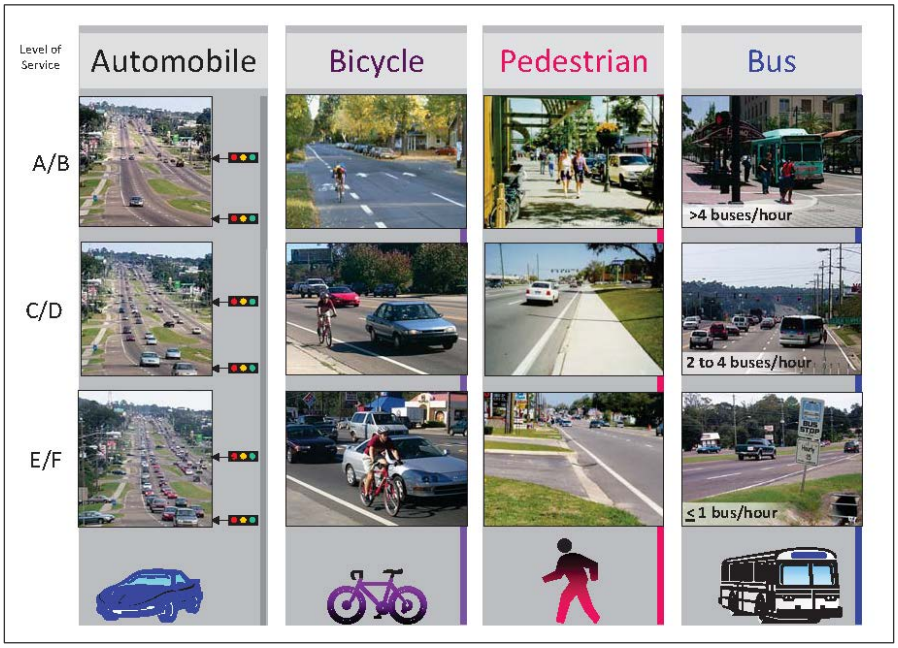


Table 6.5: Multi-modal Level of Service Depictions

Capacities of roadways vary greatly and are directly related to many roadway characteristics including access spacing, traffic control, adjacent land uses, as well as traffic flow characteristics such as percentage of trucks and number of turning vehicles. Roadway capacity per lane for divided arterials is 700 to 1000 motor vehicles per hour and 600 to 900 vehicles per hour for undivided arterials. These values tend to be 10% of the daily physical roadway capacity. Based on these figures, a two-lane arterial roadway may achieve a daily capacity of up to 12,000 to 18,000 motor vehicles per day, a four-lane arterial roadway may achieve a daily capacity of up to 28,000 to 40,000 vehicles per day, and a four-lane freeway may achieve a daily capacity of up to 70,000 motor vehicles per day. Table 6.5 shows roadway design capacities.

Table 6.6: Roadway Design Capacity (Source: Based on Highway Capacity Manual)

Designation	Daily Capacity (vehicles/day)
Rural 2-lane 55 mph	12,000
Urban 2-lane Arterial	9,000
Urban 3-lane Arterial	17,500
Urban 2-lane Local	7,500
Urban 4-lane, Undivided	20,000
Urban 4-lane, Divided	40,000
4-lane Freeway	70,000

The acceptable level of traffic volumes on collectors and local streets varies based on housing densities and setbacks, locations of parks and schools, and overall resident perceptions. Typically, acceptable traffic levels on local streets in residential areas are approximately 1000 to 1500 motor vehicles per day.

Some roadways have physical capacities that are much greater than the acceptable level of peak-flow traffic on a particular street. These streets may be good candidates for narrowing with the addition of bicycle lanes, sidewalks and/or terraces, or by a reduction of lanes or lane widths.

Access Management - Motor Vehicles

Access management is a process that provides or manages vehicular access to land while simultaneously preserving the efficient flow of traffic (mobility) on the surrounding road system. The harmonization of access and mobility is the key to effective access management. Mobility is the ability of people to move via a transportation system component, from one place (or land use) to another. The degree of mobility depends on a number of factors, including the ability of the roadway system to perform its functional role, the capacity of the roadway, and the operational level-of-service (LOS) on the roadway system.

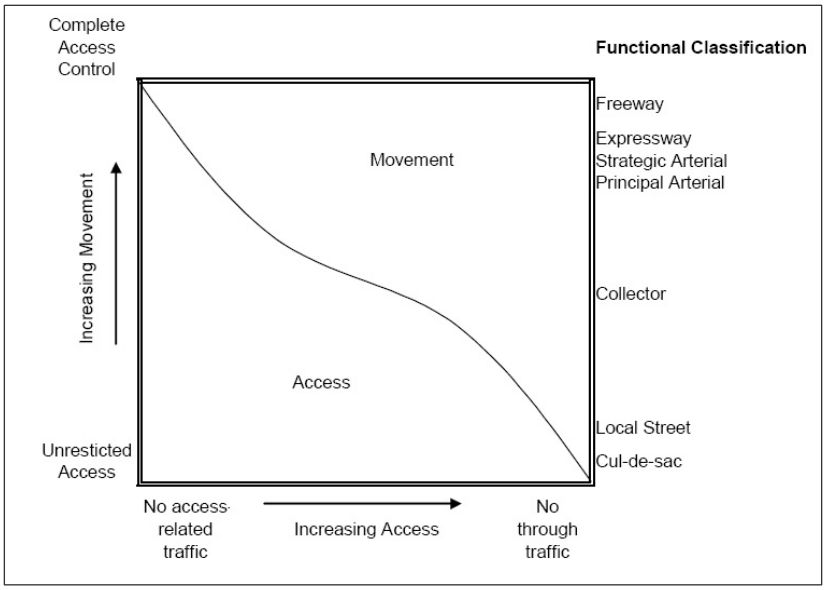
Increasing traffic congestion, traffic safety issues, and the high costs of road improvements are three major reasons for access management. Good access management benefits motorists, pedestrians, cyclists, transit patrons, developers, business owners, freight shippers, government, communities, and can:

1) Reduce crashes and crash potential
2) Preserve roadway capacity and the useful life of roads
3) Decrease travel time and congestion
4) Improve access to properties
5) Coordinate land use and transportation decisions
6) Improve air quality
7) Maintain travel efficiency and related economic prosperity

The key to effective access management is linking appropriate access design features to roadway function. Successful access management practices protect and enhance property values while preserving the public investment in our roads.

Access is the relationship between adjacent land use and the transportation system. There is an inverse relationship between the amount of access provided and the ability to move through-traffic on a roadway such that as higher levels of access are provided, the ability to move traffic is reduced. Controlling access thus is an important consideration for transportation officials. Figure 6.5 illustrates the access/mobility relationship.

Figure 6.5: Access and Mobility Relationship



The goal of access management is to achieve a *safe* and *efficient* flow of traffic along a roadway while preserving reasonable access to properties. Minimal conflicts, low crash rates and good levels of service are ideal. Achieving this goal requires a careful balancing act in the application of access design standards and regulations.

Along the US-41/M-28 corridor, a local Corridor Advisory Group meets monthly to review development in the corridor and discuss other access issues. The group includes representatives of the various local jurisdictions in Marquette County, including the Marquette City Planner, as well as MDOT officials. The Corridor group also follows the *US-41/M-28 Comprehensive Corridor & Access Management Plan* (Sept. 2010), which is a product of the group's efforts to document an access management plan for the corridor.

Access management is currently accomplished on City streets through ordinances regulating curb cuts/driveway openings (size and spacing), street design, and traffic signals. These are informed by guidance from state and federal transportation agencies. The Michigan Dept. of Transportation (MDOT) has developed *The Access Management Handbook*, which is used throughout the state by local jurisdictions in determining access decisions. The City's site plan review process often provides developers with access guidance from City staff and the Planning Commission. Adoption of an access management ordinance, provisions applicable to all US-41/M-28 and M-553 would further enhance the safety and efficiency of these limited-access highways.

Six basic principles are used to achieve the benefits of access management:

1) Limit the number of conflict points.
2) Separate conflict points.
3) Separate turning volumes from through movements.
4) Locate traffic signals to facilitate traffic movement.
5) Maintain a hierarchy of roadways by function.
6) Limit direct access on higher function roads.

The principal design techniques used in access management within cities focus on the control and regulation of the spacing and design of driveways and streets, medians and median openings, and traffic signals. Each access location (i.e. driveways, intersections) creates a potential point of conflict between through vehicles entering and exiting the roadway; either through the slowing effects of merging and weaving that takes place as vehicles accelerate from a stop turning onto the roadway, or decelerate to make a turn to leave the roadway. At signalized intersections, the potential for conflicts between vehicles is increased, as through-vehicles are required to stop at the signals. If the amount of through traffic on the roadway is high and/or the speed of traffic on the roadway is high, the number and nature of vehicle conflicts are also increased.

Accordingly, the safe speed of a road, the ability to move traffic on that road, and safe access to cross streets and land adjacent to the road all diminish as the number of access points increase along a specific segment of road. Unfortunately, once an access problem becomes obvious, it may be too late to correct. The need for better access management is most obvious in strip commercial areas where driveways are often found in close proximity to one another. By managing access to the roadway system during project planning stages, safe access can be provided while preserving traffic flow and future roadway capacity. Access management is typically addressed as a purely motor vehicle issue, but it also has a major impact on pedestrian and bicycle facilities as well. Too many curb cuts along an arterial road that traverses a walkable corridor, such as N. Third Street, creates added pedestrian-vehicle conflict hazards. Add bicycles to the sidewalks and you have a high propensity for collisions among all modes.

Freight Transportation

Freight activity is a significant element of the regional and state economies, and has a major impact on the transportation system. The region centered on Marquette includes facilities for numerous freight transport modes. As freight movements across all modes are likely to increase over time, safety, congestion, reliability, and system preservation will continue to be of major concern for the foreseeable future.

Great Lakes Port Facilities

There are two Lake Superior ports located in the City of Marquette, known as the Upper Harbor and Lower Harbor ports. Between the two ports, 12-14 million tons of commodities per year are handled on average in recent years, with most of the exports and imports going to and coming from other Great Lakes ports. The Upper and Lower Harbor ports are considered class C ports by the United States Customs and Border Protection. Class C ports are characterized as a "point of entry only for aliens who are

arriving in the US as crewmen of a vessel." This being the case, there is little to no immigration coming into the ports located within the City.

The Upper Harbor port is located in North Marquette, between the outlet of the Dead River and Presque Isle. he main import for the Upper Harbor port is coal to fuel the power plant, and iron ore that is mined at the various Cleveland Cliff mines is the main export commodity. The ore freighters that leave the Upper Harbor typically weigh (water displacement) between 19,000 and 30,000 tons, but can reach up to 60,000 tons. The coal freighters that are bringing coal for the power plant are usually around 60,000 tons.

The Lower Harbor is located in the heart of downtown, in the same area where the first port was established in Marquette Bay, or Iron Bay as it was known for many years. The Board of Light and Power (BLP) operates an inter-modal port facility near the BLP power plant. The imports for this harbor are limestone and coal, and the larger ships that dock at the BLP port usually carry around 25,000 tons of coal or limestone.

Other than the larger ships coming into port, there are several different types of craft that also frequent the Upper and Lower Harbors these include but are not limited to recreational, commercial operators (IRQ3 and Coasters), commercial fishing, charters, work boats, government vessels (DNR/CG), visiting commercial, and launchers. It has been several years since a Great Lakes cruise ship has come in to the harbor. In 2014 the port is projected to receive approximate 320 ore freighters.

More information on Marquette's port facilities, as they relate to waterfront land use, is presented in the Waterfront Land Use section of this document.



"Tall Ships" are a popular attraction during summer in Marquette.

Rail Freight

Railroads are an integral part of the transportation system for the region, and complement water and truck-based services for the movement of bulk materials. There is only one Class I railroad, the Canadian National (CN) operating in Marquette County. Class I railroads are national companies that primarily offer transportation interchange to national and intermodal shippers and markets. Freight transported over CN rails includes petroleum, chemicals, grain, fertilizers, coal, metals, forest products, minerals, and automotive parts. There are two Class III shortline railroads operating in Marquette County. These railroads provide line-haul service in a limited area.

The Lake Superior & Ishpeming Railroad (LSI) has 44 miles of rails. It's primary business is the transport of iron ore over a track less than 20 miles from the Empire and Tilden mines, south of Ishpeming, to the Upper Harbor port in Marquette. Also in Marquette County, the Class III Escanaba & Lake Superior Railroad (E&LS) owns lines that include Channing to Republic, Channing to Wells, and Sidnaw to Nestoria and Menominee. Goods transported include scrap paper, wood pulp, pulpwood logs, oriented strand board, lumber, canned goods, steel, scrap metal, aggregate, chemicals, and agricultural items such as corn, grains, feed, and fertilizers. The 165-mile mainline of the E&LS stretches from Sidnaw to Green Bay, Wisconsin and connects with the CN at Pembine, Wis., Green Bay, North Escanaba, Marinette and Quinnesec.

Pipeline Freight

Pipelines are generally the lowest cost, highest volume and least flexible mode of goods transport. Natural gas and petroleum products are the primary commodities delivered by a local pipeline distribution network.

Inter-modal Freight Centers

Inter-modal shipments move by a combination of two or more transportation modes. Unless a business is located along a dedicated rail siding, positioned within an airport, or has its own port, dock, or pipeline connection, a transfer to another shipment mode will be necessary. For heavy freight, the only intermodal facilities presently operating in Marquette are the two ports, where commodities (mainly iron ore) are transferred from train cars to ships ("lake freighters"), and from freighters to trucks (mainly coal and limestone going to mines), with temporary storage of bulk commodities onsite.

Truck Routes

An ordinance (#608) was adopted by the City Commission in the fall of 2014 to regulate truck traffic routes within the city, to prohibit commercial trucks on certain roadways, and to establish a permitting process for certain exceptions to the ordinance. According to Ordinance 608, the following Roadways in the City of Marquette are, to the exclusion of all other Roadways, designated as truck routes classified for use by truck traffic:

1.) West Washington St. from McClellan Ave. west to the intersection with U.S. Hwy 41;
2.) McClellan Ave. from U.S. 41 to Ridge St;
3.) McClellan Ave. from Fair Ave. to Wright St.
4.) Wright St. from western boundary of the City to Sugarloaf Ave.;
5.) Sugarloaf Ave. to the intersection with Hawley St. and CR 550; and
6.) CR550 from the intersection with Sugarloaf Ave. to the northern City boundary.

Pedestrian and Bicycle Network





Active transportation, in the forms of walking and bicycling, are a demonstrated priority of Marquette residents. It has become widely accepted that "walkability" is a top quality-of-life indicator for a place, and its good for business. Bicycle facilities are popular for recreation and an important element of local tourism. But for many people walking or bicycling are their only means of travel. About 40 percent of U.S. residents are either not licensed drivers or do not have access to an automobile for routine trips.

Almost everyone is a pedestrian for at least a small fraction of each trip taken, and the majority of trips within a typical downtown are made on foot. Bicycles have been a popular mode of self-propelled, non-polluting transportation since the late 19th Century, and currently provide affordable transportation for more than a billion people globally. The acknowledged benefits of walking and bicycling for transportation include:

- These are relatively inexpensive ways to travel and ;
- Increased exercise from walking or biking often leads to health improvement;
- Bicycling and walking are environmentally sustainable ways to travel;
- Reductions in automobile traffic leads to improved quality of life for individuals and community;
- Active transportation provides opportunities for personal interaction with others.

The design of the built environment has a major impact on the safety, efficiency, and comfort of pedestrians and bicyclists. Safe, connected, and continuous facilities for bicycling and walking are vital to encourage and support travel by foot or by bicycle, and also help to promote transit use. Design elements that provide for short and direct trips facilitate walking and cycling. Straight and interconnected streets, shallow building setbacks, small blocks, trees and landscaping, public spaces, and continuous facilities all encourage pedestrian and bicycle activity, as do mixed-use developments and clustered developments. Once an area has been developed with deficiencies for pedestrian and bicycle circulation it can be very difficult to add sidewalks, bicycle facilities, or paths.

Bicycle Facilities

Bicycles may be safely accommodated on many low-volume local, collector, and arterial roads, as well as county and state roads with shoulders more than 4 feet wide. The traffic volumes and speeds in many urban neighborhoods and suburban residential developments are low enough to permit the coexistence of automobile and bicycle traffic. To safely use public roads, bicyclists must act as drivers of vehicles, exercising the same rights and responsibilities that motorists do, although there is very limited training or education available to prepare people to bike with automobile traffic. Using a bicycle for transportation in most cases requires that bicyclists use public roads. While many city streets and rural roads are technically adequate for bicycle travel, safety is major concern for busy streets, as well as rural roads where bicycles and motor vehicles have to share lanes that were designed only for motor vehicle traffic.

Bicyclists need continuous routes which have design features that accommodate bicycles, and which link to community activity centers such as central business districts, schools, libraries, and transit stations. The following figure (Figure 6.6) shows a recommended on-road bikeway network, designed by Mike Lydon, a principal partner of the Street Plans Collaborative, during his May 2013 visit to Marquette as part of the Third St. Sustainable Corridor design team. This plan could be used as a framework to begin local design for specific facilities that may include bike lanes, bike routes with marked shared lanes ("sharrows"), sidepaths (grade-separated bikeways), bike boxes at intersections, and so forth (see Fig. 6.7).

Pedestrian Facilities and Walkability

By prioritizing pedestrian safety, a roadway is likely to attain safer attributes for all users. Sidewalks and multi-use paths provide a significant measure of safety for those walking near roads by separating them from traffic, and are otherwise important in encouraging people to walk for transportation/utility as well as recreation and health. Children and the disabled especially benefit from sidewalks, because walking is often their only option for neighborhood trips, and child pedestrians are also more prone to have traffic accidents than adults. Similarly, the elderly benefit from sidewalks that are continuous and clear, and that alone can make a significant difference in their health, and connectivity to neighbors and transit. Many seniors that don't have pedestrian access to transit stops will use more expensive on-call transit service, or taxis.

The City of Marquette enjoys a number of advantages that make it an ideal community in which to promote walkability. Its traditional grid-pattern street network creates links between most neighborhoods whose housing density supports walking. Also, city amenities such as the waterfront, downtown, and the University are centrally located, providing strong opportunities to create pedestrian links between these areas and the surrounding residential neighborhoods. Finally, Marquette's somewhat isolated location, winter conditions, and limited population growth has helped to minimize the impact of sprawl development. While these characteristics provide an excellent base from which to work, there are still a number of issues that must be addressed before Marquette can reach its full potential from a walkability standpoint.

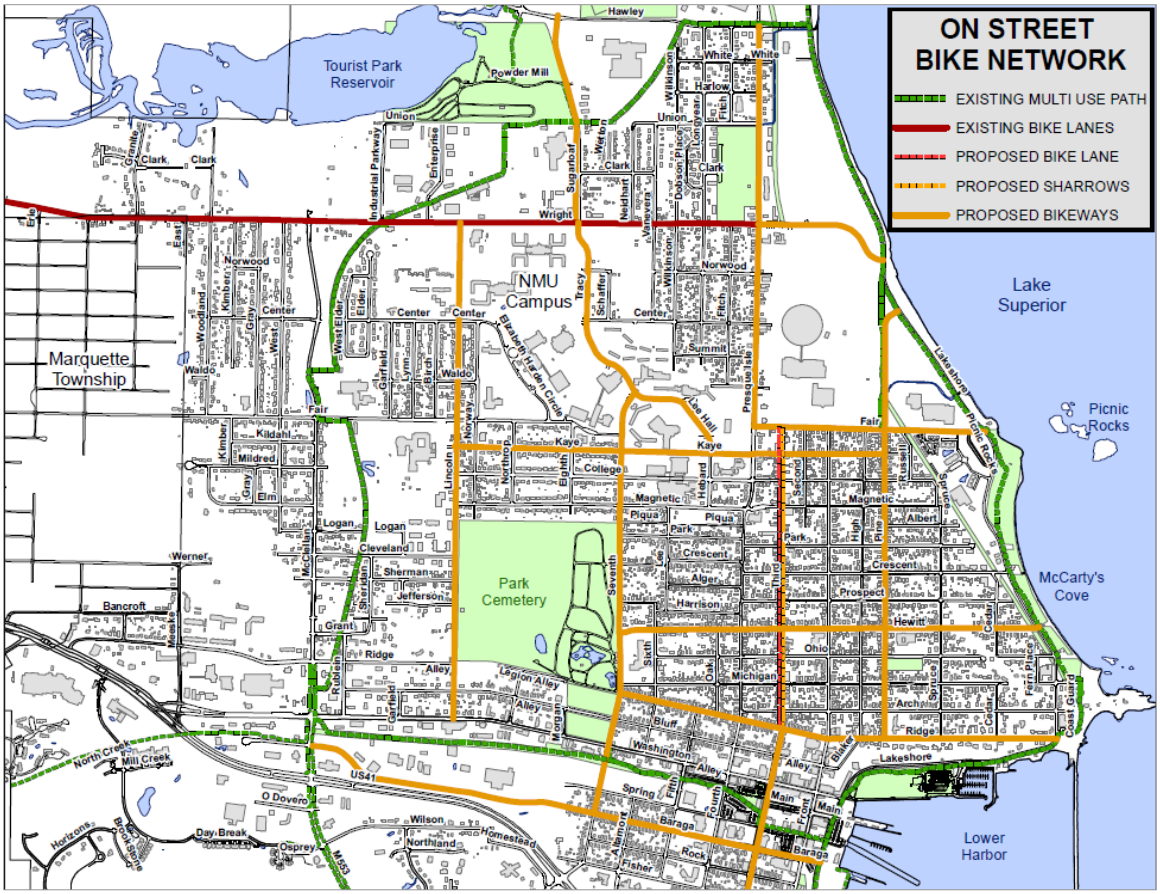


Figure 6.6 Suggested On-Road Bikeway Network

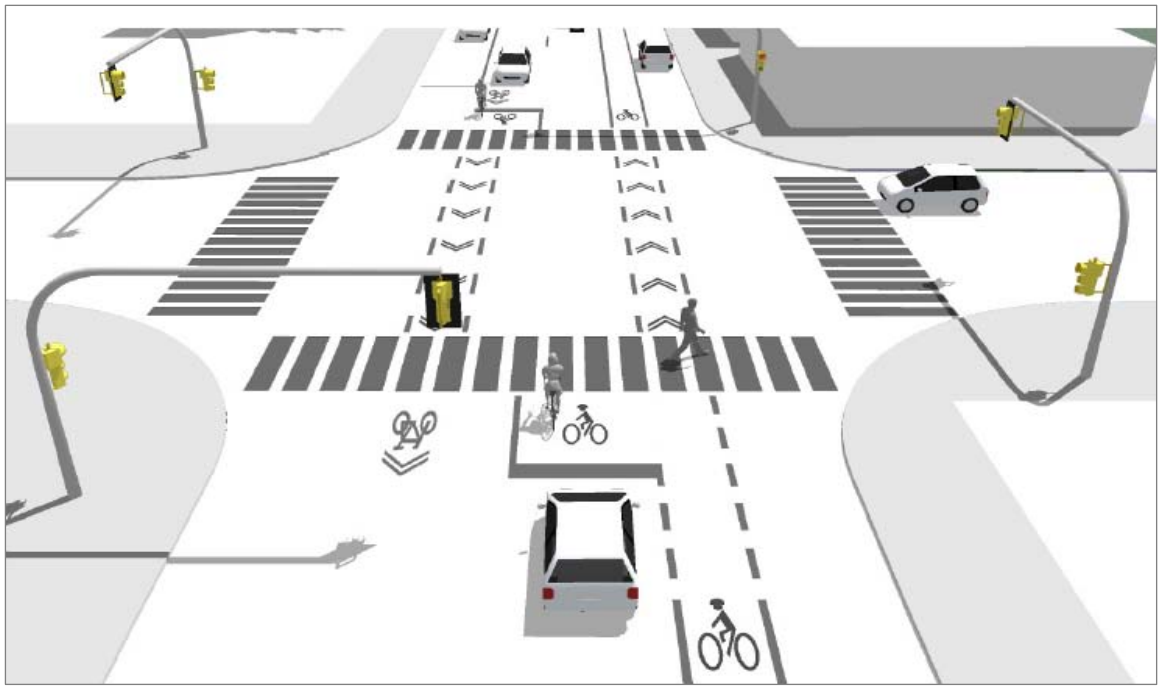
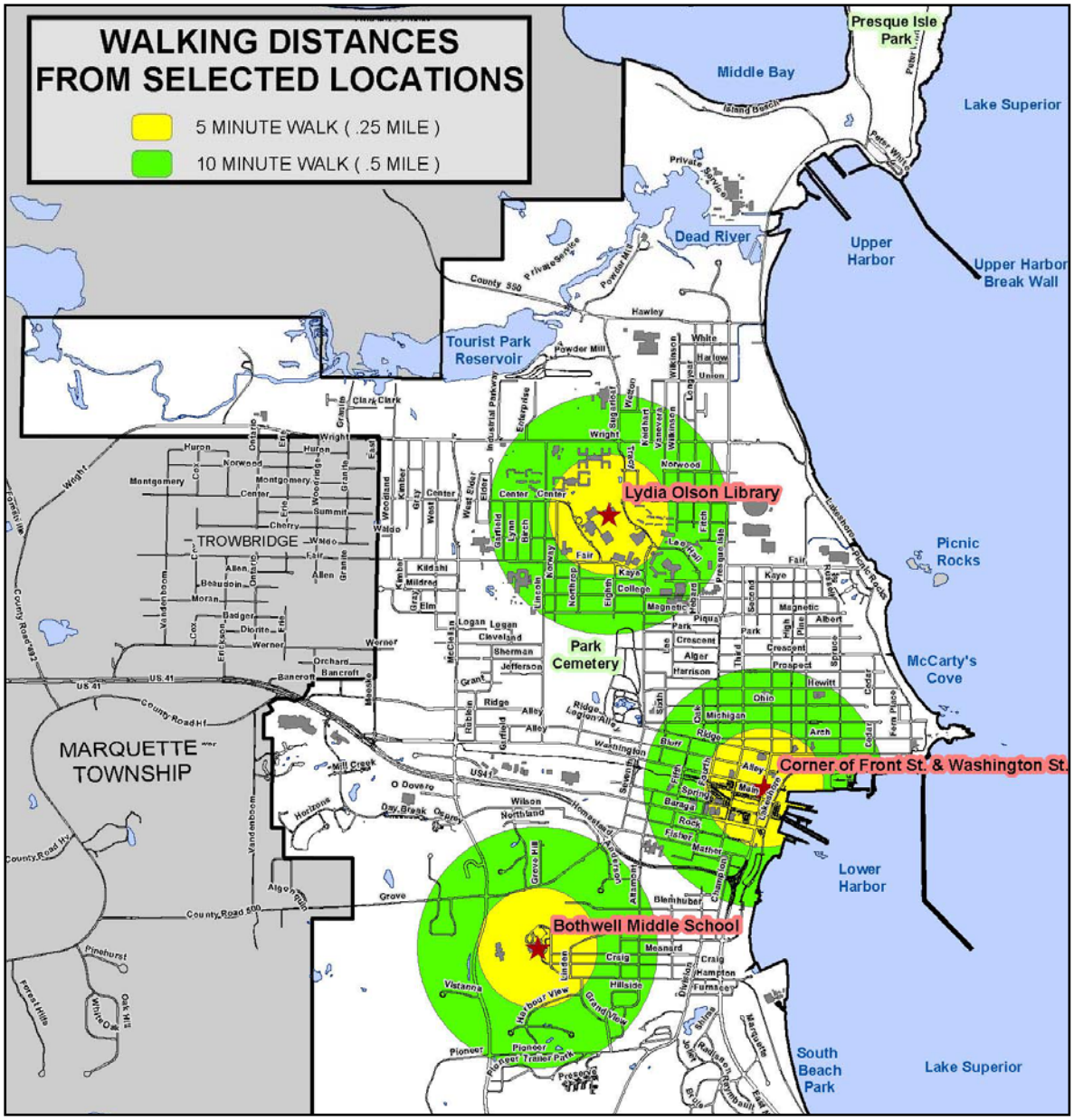


Figure 6.7 Suggested On-Street Bikeway Facility Options for Intersection and Corridor

Figure 6.8, below, provides an overview of the typical distance that may be walked by a person of good health in 5 and 10 minute increments from three points in the City. However, the map does not account for changes in terrain, weather, or even the connectivity of the sidewalk network, so these must be considered rough estimates based on distance alone.

Improvements to the transportation network are a critical component of a walkable community, but it is by no means the only area to which attention must be given. The creation of a truly livable, walkable, and equitable community involves a careful analysis of land use patterns, development practices, parking policies, location of pedestrian connections, school policies, design to accommodate disabled residents (see below), and an overall commitment by the residents to improve the walkability of their city.



Transit Service

Public Transportation is provided in Marquette by a variety of both public and private services, but there is only one designated public agency - MarqTran - that provides transit services that are available to all residents in Marquette County. Marq-Tran receives Federal Transit Administration (FTA) Section 5311 program funds, and uses a combination of fixed routes, curb-to-curb, contract runs and service runs to serve areas throughout Marquette County.

The main MarqTran facility is in Marquette Township, a quarter-mile north of the US-41/M-28 corridor. In 2011 a new Marq-Tran transfer station was opened in downtown Marquette, on the corner of Third and Spring streets (see figure 6.9 below). Marq-Tran fixed routes run every day with exception of holidays and only one fixed route on Sundays, and para-transit (on-call) service runs seven days a week including holidays. They run approximately 36 vehicles of different sizes to accommodate their routes and para-transit services. Buses are equipped with lifts for disabled individuals, and bike racks for the summer months, and ski racks for the winter months.



Figure 6.9: The Marq-Tran Transfer Station in Downtown Marquette

Marq-Tran's fixed route service extends west to Ishpeming, and south to Gwinn and the Sawyer International Airport. There are five fixed routes:

- ✓ The *North Marquette* route operates every 30 minutes, and is the only route that connects Northern Michigan University to the downtown area.
- ✓ The *South Marquette* and the *Mall shuttle* run hourly and connect the downtown to businesses in Marquette Township.
- ✓ Marq-Tran also operates cross-county routes that run from Ishpeming-Negaunee- Marquette and Marquette-Sawyer- Gwinn. They also operate a fixed route that serves Ishpeming, Negaunee and Palmer.

The Marq-Tran para-transit service is offered to the disabled, seniors, and other residents that have appointments, work requirements, etc. They operate two door-to-door buses in the greater Marquette area, two buses for Ishpeming-Negaunee area, and one bus in the Gwinn-Little Lake- Sawyer area.

The door-to-door fares are zone based meaning the farther you travel the more you pay. They offer discounts to seniors and those with disabilities who are required to have an aide accompany them. Marq-Tran also offers a medical-call back program that is part of the para-transit service, if the bus transports a rider to a medical facility for an appointment the doctor's office can call Marq-Tran after the appointment is finished to pick the rider up.

Pedestrian and bicycle facilities are particularly important for transit-dependent populations who use this infrastructure to access bus stops and other services, and active transportation is critical for a healthy community. While pedestrian and bicycle connectivity is clearly a priority for the City of Marquette, transit and ridesharing have been low priorities in planning efforts to date.

2013 Mobility Management/Transit Study

A transit/mobility management study and planning process took place during 2013, led by Roger Millar of Smart Growth America and the City of Marquette, in connection with the Third Street Sustainable Corridor Plan Project. The Michigan Sense of Place Council, representing numerous state agencies under the direction of Governor Snyder, engaged in this partnership with Smart Growth America to provide technical advisory services to Marquette and five other communities in Michigan pursuing livable communities initiatives. As part of the Federal Partnership for Sustainable Communities program, the goal of this program is to coordinate federal funding directed to housing, transportation, and other infrastructure in communities, to create more livable places where people can access jobs while reducing pollution and also saving time and money.

The assistance was in two primary areas – community mobility management and strategic transportation demand management (TDM). The focus of the effort for the Marquette livability effort was on mobility management. Through regular collaboration with a diverse group of regional stakeholders, and building off of existing institutions and transportation assets, the task was to develop implementable strategies to improve mobility for Marquette. Within the city core, the discussion focused on the 3rd Street corridor that connects the historic downtown, Northern Michigan University, and the hospital. Region-wide the discussion focused on better informing people about available services and coordination of service providers. The vision is a vibrant, sustainable and livable community, city, and region.

Mobility management is the state of the practice for planning and implementing effective coordination. This project has classified strategies into the key areas of tactical day-to-day activities that match riders and services, and strategic longer-term efforts to plan and coordinate across multiple stakeholders. The full range of mobility management services may include customer relations, marketing, planning, land use development, system integration, finance, administration, legal, compliance, human resources, multimodal operations, information technology, engineering, construction, and varied non-operating functions (Crain & Associates, Inc., et al., 1997).

The project progressed in three distinct stages: 1) review of national leading practices and assessment of existing local resources and opportunities, 2) discussion of alternative approaches and strategies, and finally 3) development of an action strategy for

implementation. This report is the culmination of these three phases and their associated findings. The reports from this project may be accessed via the City Planning office, and they are posted on the Planning Department webpage, under the Public Transportation/Transit Planning with Smart Growth America heading. A short list of goals and prioritized strategies to improve transit service with the City and the region were developed for local stakeholders:

Goals

The following goals were developed for mobility management and coordination in the Marquette area:

A. Improve integration of public transit into Marquette's city core
B. Define and coordinate services to the community core provided by NMU and Marq-Tran. Expand future coordination with Checker Cab and Bus and other county services.
C. Improve integration of public transportation into the Marquette area's tourism economy
D. Coordinate and integrate human services transportation into a broader mobility management effort.
E. Increase the focus on public transportation and mobility management in community planning, decision-making and marketing.
F. Improve marketing and communication about services

Implementation

Marquette participants chose to focus on pursuing implementation steps by blending goals and strategies in Chapter 4 into three primary approaches:

- Complete a Coordinated Human Services Transportation Plan
- Improve marketing, information, communication, and coordination
- Build partnerships and community focus on moving forward to improve transportation and community planning along and around the 3rd Street corridor

The timelines to implementation for the top three priorities listed below are expected to begin in year 1. The timeline for all other strategies mentioned in Chapter 4 are projected to be between years 2 and 5. The complete reports from this project may be accessed via the City Planning office.
This quote from the "State of the Practice" portion of the *Marquette Mobility Management and Coordination Strategies Final Report* (page 2-3) is profound:

> *"The ideal community transportation system not only meets basic social service needs, but also provides significant economic benefit to employers, employees and commercial areas. Additionally, by maximizing ridership it should achieve meaningful reductions in traffic congestion and carbon footprint. To do this, services must be affordable and consist of routes and services that are designed using good data and stakeholder input to effectively serve a broad range of community needs."*

Universal Design

In recent years an area of design practice has emerged that is known as "universal design," and it includes both principles and a process for designing any number of things that people utilize, including streets and buildings. Universal design (UD), according to

the Center for Universal Design, "is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (*www.ncsu.edu/project/design-projects/udi/ center-for-universal-design/the-principles-of-universal-design)*. There are many applications in the urban development context, but streets are probably the most universally-relevant public feature that may be improved over time by application of universal design elements. Transportation engineers for decades designed streets for the *average user*, as did designers of most products, to meet the needs of people with average functional abilities (highly functional and healthy). When UD principles are applied, products and environments meet the needs of potential users with a wide variety of characteristics, including physical and/or cognitive disabilities.

Historically, the Americans with Disabilities Act was the legal framework for many design considerations addressing the needs of users with limited ability. Universal Design goes beyond ADA requirements and establishing its principles along city streets, in parks, and in other public spaces will not only enable patronage from all users, but welcome it.

Universal Design Principles

At the Center for Universal Design (CUD) at North Carolina State University, a group of architects, product designers, engineers, and environmental design researchers established seven principles of UD to provide guidance in the design of products and environments. Following are the CUD principles of UD, each followed with an example of its application:

1. *Equitable use*. The design is useful and marketable to people with diverse abilities. For example, a website that is designed to be accessible to everyone, including people who are blind, employs this principle.
2. *Flexibility in Use*. The design accommodates a wide range of individual preferences and abilities. An example is a museum that allows visitors to choose to read or listen to the description of the contents of a display case.
3. *Simple and intuitive*. Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. Science lab equipment with clear and intuitive control buttons is an example of an application of this principle.
4. *Perceptible information*. The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. An example of this principle is captioned television programming projected in noisy restaurants.
5. *Tolerance for error*. The design minimizes hazards and the adverse consequences of accidental or unintended actions. An example of a product applying this principle is software applications that provide guidance when the user makes an inappropriate selection.
6. *Low physical effort*. The design can be used efficiently, comfortably, and with a minimum of fatigue. Doors that open automatically for people with a wide variety of physical characteristics demonstrate the application of this principle.
7. *Size and space for approach and use*. Appropriate size and space is provided for approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility. A flexible work area designed for use by employees with a

variety of physical characteristics and abilities is an example of applying this principle.

The *Marquette Access Group* (MAG) has been active during recent years in educating the community on universal design and advocating for its adoption into practice. The MAG has recently provided a variety of comments to the Third Street Corridor Sustainable Development [Sub-area] Plan, covering a broad spectrum of concerns, including major roads, streets, sidewalks, non-motorized traffic and public transit, as well as general awareness. Those comments are found in Section C of that Plan document (pp. C87-C90). For illustrative purposes Some of MAG's concerns regarding street design and transportation are listed below. These comments were intended to indicate some of the more problematic issues people with disabilities deal with in their day-to-day travels and *traffic encounters in the City of Marquette area.*

Public Transportation
- Could safe stops and shelters be established on streets or at locations known to host patrons?

Roadways (non-snow season)
- Could most maintenance operations be more "conditions-timed" and less "calendar-timed"?

Roadways (snow season)
- Could snow ridges left at intersections be cleared as soon as possible following plowing?

Sidewalks (non-snow season)
- Could "Wet lines, control lines, break lines" routinely be specified as to be *installed by saw* to be as unobtrusive as possible when crossed by a wheelchair or those with mobility problems?

CITY STREET NETWORK ANALYSIS

Marquette Streets - Inventory and Analysis

An map analysis of Marquette's existing road network shows that it has, with a few exceptions, a well-connected "grid" system of roads. Such continuity and connection between streets is an extremely important measure of the quality of a road network. With several, inter-connected roadways to carry traffic, we avoid the undesirable pattern where all traffic is routed to a small number of main arteries. The City's well-connected network also provides opportunities to continue creating high-quality pedestrian and bicycle routes, as facilities such as on-street bicycle lanes can in many cases be implemented safely and efficiently without major modifications to the existing roadways.

A comprehensive "traffic study" by consultant DLZ Corporation is expected to be completed by the spring of 2015. The traffic study is an analysis of roadways focused on multi-modal traffic counts, peak volumes, intersection turning movements, level of service (LOS), and intersection utilization capacity (IUC). The purpose of the study is to identify areas that require immediate attention, analyze options for access to the future hospital campus on W. Baraga St., as well as to put long-term planning issues in relief. When the study is completed the Planning Commission will make recommendations to be added to this chapter, and summary results of the study will be shown in Appendix F.

General Street Network Planning and Design Considerations

Design Guidelines and Reconfiguration of Roadways

While improvements will be identified through analysis of the 2014 traffic study and added in to this section later, there are several important recommendations that apply to the general design of roadways throughout the City of Marquette that are relevant for consideration on an ongoing basis. One of the most important issues to address is the potential reconfiguration of streets in many areas of the city. Reconfigurations are typically designed as part of the Capital Improvement Plan process to upgrade street surface/structure and/or utilities, or as a function of grant-funded planning projects.

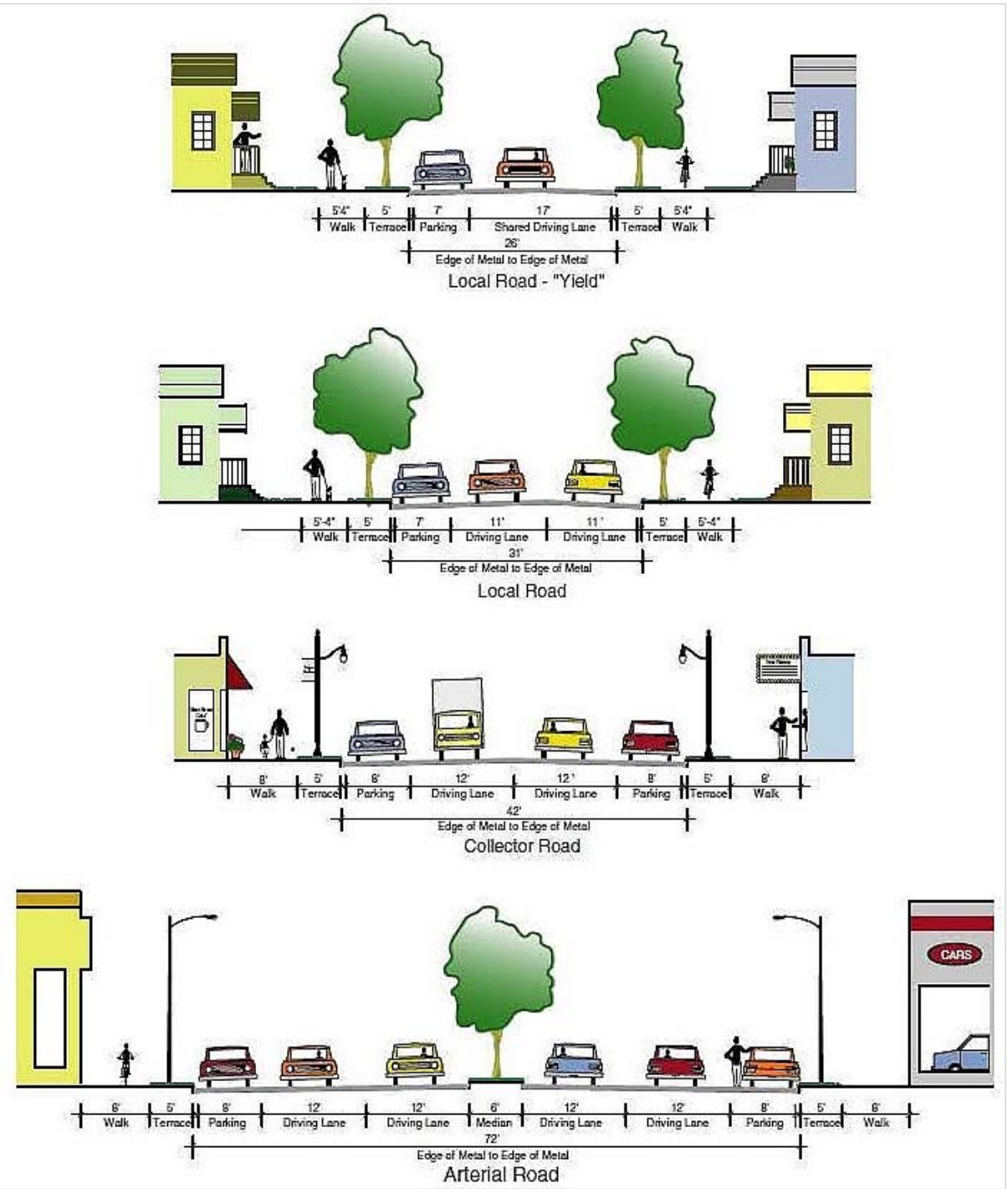
Specific types of modifications will be addressed after consideration of design guidelines are presented. These guidelines should serve to inform the selection of various modifications, on a project-level basis.

Design Guidelines - While each road that is being considered for reconfiguration should be examined individually, Marquette should have a general standard that will provide design guidelines for all the major types of roadways within the city. Figure 6.10, on the following page, presents these guidelines, showing a cross-section for a variety of road classifications, including local roads, larger collector roads, and finally a set of design standards for the main arterial thoroughfares throughout the city. These guidelines were put into place with the adoption of the 2004 Community Master Plan and have proved to work well for the design of streets through the Capital Improvement Planning process.

Local Roads – These roads are found primarily in residential neighborhoods and represent the smallest and slowest roadways in the traffic system. Design guidelines recommend that all local roads include a 11' driving lane, one 7' lane for parking where needed, a 5' terrace area to allow for snow storage after plowing, and a 5'-4" sidewalk on both sides of the roadway. In some neighborhoods it may be desirable to reduce the amount of roadway pavement as much as possible in order to allow a sufficient buffer between the road and the adjacent houses. In these situations, a "yield" street may be appropriate. The cross-section for a "yield" street is the same as a typical local road, except that the driving area is reduced from 22 feet to 17 feet. Rather than designating two specific lanes with a center lane marking, the 17' driving lane is shared between the two-way traffic. When cars meet each other, one car must yield, letting the other pass. This type of design is a particularly effective way to slow traffic and increase the safety of neighborhood residents.

Collector Roads – Design guidelines for collector roads specify 12' driving lanes and 8' parking lanes, with the same 5' terrace area between the roadway and the sidewalk. Along collector roads, parking will be allowed on both sides of the street. This is particularly useful since many collector roads are located in commercial areas where the additional parking will be utilized by customers.

Figure 6.10: Design Guidelines for Marquette Streets



Arterial Roads – Arterial roads use the same road measurements as the collector roads (12' driving lanes and 8' parking lanes). If these roads carry sufficient traffic, there may be a need to add additional driving lanes. In such cases, a central median or boulevard should be used to separate oncoming traffic and to provide a safe stopping point for pedestrians trying to cross these large roads.

These design standards incorporate snow removal and storage considerations requested by the Department of Public Works. Street width, including on street parking where applicable, is measured from edge of metal to edge of metal of curb. The width of the curb is typically one-and-a-half feet from the edge of metal to back of curb. Therefore, a local street with on street parking on one side of the street is thirty-two feet (two driving lanes at 22', one parking lane at 7' and 3' for curbs on each side of the street.)

Street Reconfiguration - Types of Modifications

These street reconfigurations are primarily focused on four types of modifications:

1. A reduction in the number of travel lanes
2. A reduction in the road width
3. The incorporation of on-street parking
4. Modification of existing intersection signals and controls

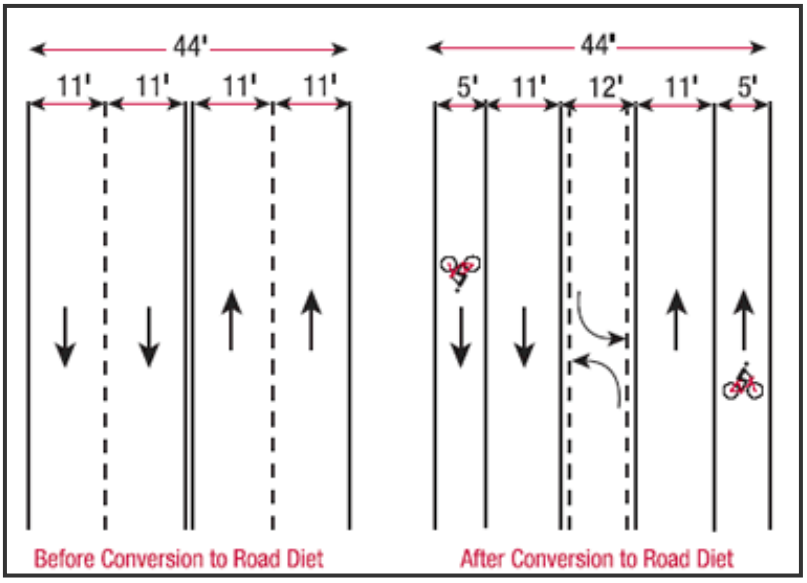
Reduction in Number of Travel Lanes

In many areas, particularly along the main arterial roads within the City, there are more travel lanes than necessary to carry the existing traffic load. Because level-of-service ratings apply only to the peak traffic hours, the quality of service for the other hours is generally one to two grades higher than what is recorded during the peak. Where level-of-service ratings along the major traffic corridors are high (A and B), it is therefore much higher than it need be for about 20 hours per day. The benefits of reducing the number of travel lanes are numerous:

- Intersection safety is typically improved significantly, due to a reduction of conflict points, alignment of left-turn lanes, improved sight lines, and controlled turns (where turn signals are installed). This improved design normally has a significant in reducing broadside collisions at intersections.
- Traffic speeds can be reduced, thereby increasing the safety of the road, with normally little change in the travel time in the corridor.
- Reduced speeds increase the efficiency of the road by creating a greater carrying capacity on the roadway. More cars can travel in a given space when travelling slowly, due to greater following distances required at higher speeds.
- Fewer travel lanes promote increased access and safety for non-motorized modes of transportation such as biking, with the addition or widening of bike lanes, or "wide curb lanes" (unmarked bike lanes) with bike route signage.
- Pedestrian safety and comfort is increased at road intersections due to the reduced width of the roadway, which makes crossings shorter and quicker.
- Less roadway pavement means less snow removal, as fewer lanes would require fewer passes by the plows to clear the roadway. Also, additional terrace area created by narrowing existing lanes would provide a larger area for snow storage. This could prevent the snow from being potentially plowed onto the sidewalks where it is then pushed back toward the streets when the sidewalks are cleared.

Figure 6.11, on the following page, presents a depiction of a 4-lane to 3-lane "road diet," where bicycle lanes were also added on the outer margins of the road, and a typical two-way-center-left-turn lane is created.

Figure 6.11: A Typical 4-Lane to 3-Lane Conversion Project
(source: Federal Highway Administration)



The following roads have benefited from a reduction in the number of travel lanes:

- Presque Isle Avenue and Fourth Street North – this corridor was reduced to two lanes in all sections. A third lane added to promote efficient movement near traffic signals helps to improve intersection turning movements.
- Wright Street – all portions of Wright St. should operate as a 2-lane or 3-lane roadway. A two-way center left-turn lane provides for turns and storage in the highest traffic areas.
- McClellan Avenue - Reduced from 4 and 5-lane configurations, to 2 and 3-lane segments throughout the corridor north of Ridge Street.
- Front Street - Reduced from four lanes to three lanes, with bicycle lane striped, between Baraga Street and Fisher Street in 2013.
- W. Washington Street - Reduced from four lanes to three lanes between 7th St. and Lincoln Avenue.

<u>Reduction in Pavement Width</u>
In addition to removing unneeded travel lanes, Marquette streets could also benefit from a reduction in the lane width on many of the roads. The reduction in road width provides several opportunities for improvements (see Fig.6-12 for sample project):

- Reduced road width reduces the tendency for people to speed, resulting in a safer roadway
- Excess road width can be used to add bike lanes without undergoing a costly reconstruction project
- Excess road width can be reused as parking lanes, or as space for dining decks.
- Excess road width can be reclaimed as a larger "green space" within the terrace area adjacent to the roadway. This area can be used for tree planting, sidewalks, or other pedestrian trails.

- Reduced road width will require less snow-plowing and provide increased snow storage areas within the enlarged terrace area.
- More narrow roads, particularly when accompanied by street trees or other landscaping are more aesthetically pleasing than a barren expanse of asphalt.

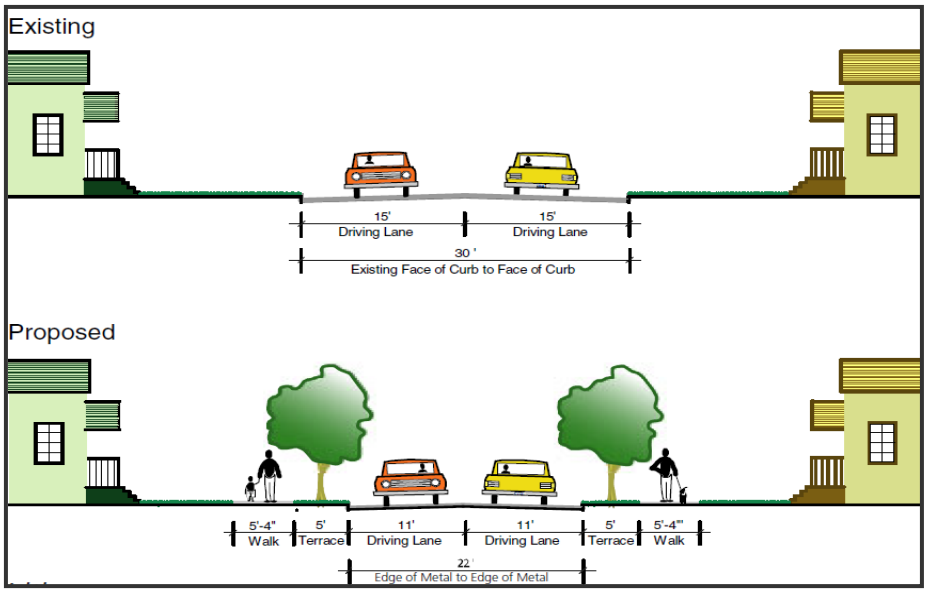


Figure 6.12: Sample Pavement Reduction Project

Incorporation of On-Street Parking

The City of Marquette has recently evaluated its parking strategies through two recent consultant-led studies. In 2012 a parking study of the downtown business district and the Third St. corridor areas was completed by Nelson Niggard Consulting Associates. In 2013 a comprehensive study of the North Third St. corridor was carried out by the Gibbs Planning Group, as part of the Sustainable Third Street Corridor Plan.

Both of these studies document the need to maximize on-street parking opportunities in a variety of ways, including:

- Closing excess curb cuts
- Eliminating one-side-only parking policies on side streets
- Reducing corner parking clearance distances to the legal minimums
- Eliminating painted parking stalls to encourage tighter parking

Because there is limited on-street parking available in the downtown area, and in some commercial and mixed-use corridors, businesses have in certain places elected to use potential development parcels as off-street parking lots instead. This proliferation of off-street lots has resulted in a large number of prime development parcels being underutilized, and has reduced the critical mass of buildings in these areas. If more parking were made available on the street, some of these currently unproductive parking lots could be redeveloped into commercial or retail businesses, thus providing additional tax revenue to the City, and increasing the density of commercial and retail stores available to downtown consumers.

Added parking on street will require enforcement activities to be increased, but the added policing burden should eventually be paid for by tax revenue increases from re-developed parking lot parcels.Beyond the potential for new development, on-street parking can increase pedestrian traffic and sales to downtown businesses. When patrons are able to conveniently park and walk to nearby stores, they are more likely to patronize a number of nearby shops, rather than simply driving to their destination and leaving without visiting any other retail establishments. See Figure 6.13 below for an illustration of a dense, small-town mixed-use district.

This example of infill development within a downtown illustrates how dense commercial buildings provide interest and incentive for patrons to frequent businesses. Parking may be provided by on-street spaces that are oriented in multiple ways, and by existing lots.

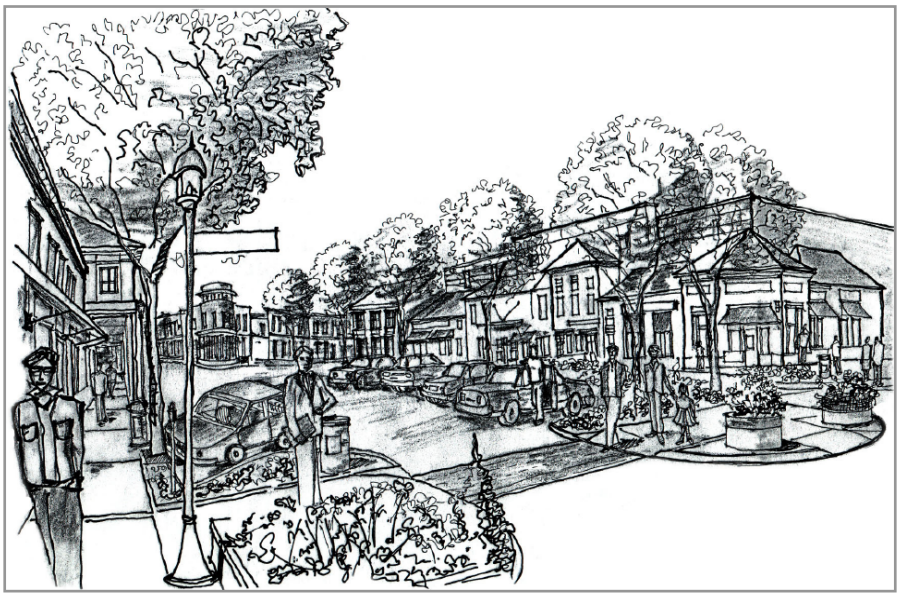


Figure 6.13: On-street Parking and Infill Development

In addition to the benefits that on-street parking can provide within the commercial and mixed-use districts, it can also be an important traffic calming device. By placing parked cars along the roadway, motorists often slow down to adjust to the presence of additional cars. This same strategy can be used in residential areas to control the speed of motorists as they pass through these neighborhoods and areas adjacent to educational facilities.

The incorporation of additional on-street parking is closely tied to the two modifications mentioned above (reduction in travel lanes and road width). Often, when parking additions are done in conjunction with these other changes, on-street parking can be accommodated within the existing roadway, eliminating the need for a costly construction project. The additional parking that is supplied on-street may also eliminate the need for costly expenditures such as a parking structure.

Reconfiguration of Intersection Signals and Turn Lanes

People often look to the use of stop signs or other intersection signals as a way of controlling traffic flow and reducing speeding. The reality, however, is that an increase in the number of stop signs at intersections can lead to a phenomenon called "speed spiking" in which drivers will speed between intersections in order to make up for the time they feel they have lost by having to stop. For this reason, eliminating many of the four-way stops in Marquette and looking for alternative controls such as roundabouts can be a successful way to control motorists' speed, as well as continuous traffic flow.



"Speed spiking" is common between stop signs.

It is also important to mention that many traffic calming devices lead to more efficient response times for emergency response vehicles. For example, in a 1999 study conducted by Dan Burden, he measured delay times caused by a stop sign to be 6-11 seconds, while a roundabout caused only 4-6 seconds of delay. Aligning left turn lanes at intersections where they are currently not aligned is another opportunity to increase the efficiency of roadway space and intersection turning movements, while decreasing conflict points and the chance for collisions. Optimizing traffic signals by system-wide controls/planning is another option that will increase the efficiency of roadways, and when done with a multi-modal approach there will be time and space for safe pedestrian movements programmed into the timing of signal cycles.

Suggested Locations: Intersections along McClellan, Presque Isle/Fourth, Front, Wright, Fair, Lakeshore, Third, and Pine should be considered for the implementation of roundabouts. Other traffic calming measures can be instituted along the length of these roadways to further reduce speeding and to increase walkability.


The roundabout at US 41 and Front St. is very effective for speed control and maintaining a smooth traffic flow.

Snow Removal Process

In a winter city such as Marquette, the effectiveness and efficiency of the snow removal process is a far-reaching issue with a large impact. The status-quo of removing snow by pushing it to the side of the street, and then removing snow banks once, twice, and even three times per year should be reconsidered. There are many cities that deal with similar amounts of snowfall that have adopted a "center-push" method of snow removal, where snow is temporarily pushed to the center of the street into a "snow median," and this snow is then removed in short order.


Snow berms at intersections impede pedestrian mobility and may discourage people from walking in town during the winter.

The potential for significantly improving walkability, motorist safety, on-street parking conditions, and aesthetics are real and should be evaluated along with the cost of switching over to this method of street snow removal. A targeted area, such as the downtown core, could be used as a pilot project if funding to initially cover the entire DDA management district and sidewalk plow routes is not adequate.

- Annual Snow Summit - To better determine the effectiveness of snow removal procedures and alternatives, an annual summit should be organized by the main public snow maintenance agencies in the City (Dept. of Public Works and DDA), and involve the primary community stakeholders that are effected by large-scale plowing and winter maintenance activities. The stakeholder group should include school, business, transit, and resident (including the disabled) representatives.
- City staff should perform a cost analysis for center-push vs side push plowing and snow removal activities, so that a A-B comparison may be made. The pros and cons of center-push snow maintenance should be compared with those of the side-push snow maintenance that is currently being conducted.
- The ordinance requiring sidewalk snow removal should be re-evaluated to determine if there are more practical and enforceable alternatives. Sidewalk snow removal in the more densely populated portions of the City is essential to creating a safe walking environment during winter, and for supporting the use of transit and bicycles as alternatives to private motor vehicles.
- Consideration should be given to options for the creative use of removed snow, such as for creating large play/sledding hills and snow sculptures.

It is important for decision makers to maintain a perspective that respects snow removal as a critical service provided to city residents, but which does not make snow removal the defining factor for the design of the city streets. Balancing the practical aspects of snow maintenance with other desirable characteristics such as ease of pedestrian mobility and access, on-street parking, motorist safety, and the aesthetic implications of the maintenance activities is required to create a truly enjoyable winter cityscape.

General Roadway Enhancements

- Traffic calming mechanisms, such as curb extensions should be designed to accommodate snow-plows and other large service vehicles. Extensions should be designed using gradual curves, rather than right angles that would be difficult for plows to maneuver around. Painted-only curb extensions may be adequate in some areas, or adequate temporarily (until full construction is possible) and are a quick and inexpensive way to establish a "bump-out."
- Discourage the use of cul-de-sacs – When designing new subdivisions, the use of cul-de-sacs should be discouraged. Such road patterns are difficult for safety-related equipment such as fire department trucks and other city services. These dead-end areas also do not help to improve the interconnectedness of the city as a whole.

Neighborhood Involvement

While these city-wide improvements are an important first-step towards realizing Marquette's vision of being a more walkable and livable city, other changes can be planned and addressed at the neighborhood level. The recommendations of Ch. 5

address this, but it bears repeating here because transportation is so intertwined with land use (including housing).

Specific Roadway Enhancements

In addition to the intersection and corridor improvements that will be addressed upon completion of the traffic study, several other enhancements have been recommended including:

- Extension of Division St. – The extension of Division St. west into Marquette Township would provide a future east-west connection between jurisdictions.
- Kaye Avenue should be extended to connect with Fair Avenue.
- Lakeshore Boulevard should be raised and moved inland, and armoring of the shore to protect the road should be improved, as outlined in the Lakeshore Boulevard and Lake Superior Restoration Project final recommendations that were completed in early 2014.

Specific Walkability and Bikeability Recommendations

In order to assist with a walkability analysis, the City of Marquette in 2003 hired Dan Burden, a nationally known walkability expert. A summary of his analysis, in Appendix G, presents expert recommendations for how Marquette can improve its walkability. This material was carried over from the 2004 Community Master plan due to its continued relevance to improving walkability in the City.

In addition to the general areas of concern identified as part of the analysis process, there are a series of specific recommendations that address common walkability concerns. These suggestions are drawn from the "Walkable Communities" toolbox of traffic calming and walkability solutions. While specific streets are mentioned as potential recipients of such modifications, it is important to note that these are considered system-wide tools and would be appropriate for use on any street showing similar characteristics as those specifically mentioned.

- Upgrade intersection facilities– It is critical that key intersections allow for safe and convenient access for all pedestrians. There are a number of mechanisms that can be used to improve these intersections including curb extensions, refuge islands, channelized islands, and medians. It is also critical to ensure that items such as curb cuts, crosswalks, and pedestrian walk signals are properly designed to allow for the safe passage of all residents, particularly those who may have accessibility issues.
    - Crosswalks – Crosswalks delineate safe crossing areas for pedestrians and alert motorists that pedestrians may be present. In order to ensure they can be easily seen by both pedestrians and motorists, crosswalk strips should be at least 18" wide and painted in a "piano-keys" or "ladder" pattern. Stop bars for vehicles should be located at least 10' from the crosswalk.
    - Walk Signals – In some locations, the pedestrian walk signals are undersized for the intersection and do not allow sufficient time for a pedestrian to safely cross. Walk signals should be evaluated to ensure that they are easily visible, and correspond to the size of the road. Other improvements, such as audible walk signals should be considered to fully accommodate disability concerns.

Suggested Locations: The roads experiencing higher traffic volumes such as U.S. 41 and Washington St., are a priority for intersection redesign. Many of these tools, however, should be considered for intersections throughout the City, particularly in areas where pedestrians are present in larger numbers such as near the University and Hospital.

- Add sidewalks – Sidewalks are an integral part of the transportation system, and are to be designed as part of the larger street cross-section when new roads are being engineered, and in new residential developments. Some developed areas have sidewalk segments that don't connect, or have an otherwise incomplete sidewalk network. Marquette should continue to require developers to include sidewalks on new roads, particularly those near the University or in proximity to City schools or other key amenities. Over the course of decades even temporarily fragmented sidewalks may form a robust pedestrian network.

  Suggested Locations: Altamont St., between the US 41/M-28 bypass bridge and Genesee St.; Craig Street, where intermittent sidewalks have gaps.

- Expand bicycle facilities (lanes, bike routes, bike boxes, etc.) – When streets appear overly wide, people have a tendency to speed. The addition of bike lanes can be an extremely easy way to reduce the width of a roadway while also providing increased access for non-motorized vehicles. Often this modification can be done simply by painting new bike lanes within the existing roadway width, and incorporating new bike route signage. Shared-lane markings (chevrons with bike symbols, or "sharrows"), as shown in the left lane of Fig. 6.7, may be used on roads with lower traffic volumes where space for creating a bike lane is limited by design or on-street parking.

  Suggested Locations: The map in Figure 6.6 should serve as a guide for evaluating proposed facility types for the various corridors and intersections identified. The following traffic corridors have excess road width and could incorporate bike lanes or sharrows within their existing road with: Seventh St., Presque Isle Ave,/Fourth St., Third St., Front St., and Fair Avenue.

Transit Recommendations

In order to improve the quantity and quality of transit service within the City of Marquette, stakeholders from the City need to:

- Stay involved with the planning process outlined for the creation of a Human Service Coordination Plan (see page 6-20)
- Focus on public transportation and mobility management in community planning, decision-making and marketing.
- Help facilitate partnerships between institutions that utilize transit services, to creatively employ underutilized transit resources throughout the community.

Regional Transportation System Recommendations

- Support research into the redevelopment of railroad and intermodal/rail facilities in Marquette County and across the Upper Peninsula, such as that which has been undertaken recently by Dr. Pasi Lautala of Michigan Tech. University.

- Support the implementation of a Customs Office in Marquette, to allow the port facilities to be upgraded to handle larger Great Lakes cruise ships and more diverse cargo.
- Support efforts to improve the economic sustainability of the Sawyer International Airport.



Photo by Denny Beck

Introduction

The facilities and services offered by a community can substantially add to its residents' quality of life. Community facilities are considered to be those facilities and services owned, operated and maintained by the City or other government or quasi-public entities that benefit City residents. This chapter will outline the facilities and services provided to Marquette residents including:

- Government Facilities
- Fire and Police Protection
- Water and Sanitary Services
- Public Education
- Regional Institutions
- Recreational Parks and Open Space
- Cultural Venues

Government Facilities

City Hall

The Marquette City Hall is located at 300 West Baraga Avenue, at the site of the former Bishop Baraga High School. Built in 1974, the building houses the City Commission chambers and many administrative offices including manager, treasurer, finance and accounting, human resources, planning and zoning, assessing, purchasing, clerk, and the police department. A variety of City boards and commissions meet regularly in city Hall. The Marquette Community Center and Senior Center are also attached to the City Hall building, and both are accessed from Spring Street. More information about the Community Center and Senior Center is provided on page 7-14.

Municipal Service Center

Constructed in 1992 on a twelve-acre site in the Marquette Industrial Park, Marquette's Municipal Service Center has provided a safe, modern, and efficient work environment for the municipal public works and engineering departments. Due to the 2014 sale of the land where this facility is located, for the construction of the new UP Health System-Marquette medical campus, a new site for the municipal service center is being sought.

The new facility will house the City's street maintenance vehicle fleet, equipment for the maintenance division of the parks and recreation department, outdoor storage for public works and utilities including materials for water and sewer utilities, a salt storage building, and a fuel depot. See page 7-10 for more information regarding the relocation of the medical campus to this site on W. Baraga Street.

Post Office

The Marquette Post Office, operated by the US Postal Service, is located downtown on the northwest corner of Washington and Third Streets in the Federal Building. The building is in good condition and through the years has been subject to various expansions and renovations. In addition to the post office, the building houses several other Federal agencies, including Federal courts.

Electric Power

Municipal Electric Power is supplied by a coal-fired power generation station operated by the City of Marquette Board of Light and Power. Expansions of the system since 1983 have increased output to beyond 100,000 kilowatts, resulting in extensive additional capacity to accommodate future development and demand. The plant is located on Lake Superior in the southern portion of the City at the intersection of Front and Lake Street. The Marquette Board of Light and Power maintains three hydro-turbine generators totaling 3,900 kilowatts (located on the Dead River at the Forestville and Tourist Park Hydroelectric Projects), and a 25,000 kilowatt oil-fired combustion turbine.

Fire and Police Protection

Fire Service

Fire Protection and Service is located at two fire stations; Fire Hall #1 in the south part of the City at the corner of South Third and Rock Streets and Fire Hall #2 in the north part of the City at the corner of Front and Prospect Streets. Fire Hall #1, constructed in 1972, is newer and somewhat larger than its counterpart. The station is fairly well situated with regard to traffic congestion, land uses, and room for equipment maneuvering and parking. Fire Hall #2, built around 1913, provides enhanced response time to the north part of the City. Quick and efficient response and routes from Fire Hall #1 to the north part of town can possibly be affected by steep topography, inclement weather and/or the existing railroad tracks.

The Fire Department includes a roster of twenty-five fire fighters, including a full-time inspector and a fire chief. Ten firefighters are certified NFPA I and II instructors, allowing them to implement a potential firefighter cadet program in Marquette High Schools. An additional four firefighters qualify as Waterfront Lifeguard instructors, imperative due to the transfer of waterfront safety to the Fire Service. The MFD currently has a Insurance Services Office "public protection classification" (PPC) of 3, which is in the top 4% in North American public fire protection entities.

Equipment consists of two frontline pumpers, one reserve pumper, one 75' quint, one brush mini-pumper, two pickup trucks, and two SUVs. The City has a full hydrant system, and has also completed its plans to upgrade its equipment (including the provision of large diameter, 5 inch, supply lines).

Police Service

Police Service in Marquette is provided by the Marquette City Police Department. The police station is centrally located in the City on the lower level of City hall. The Police Department currently includes 34 sworn police officers and 5 support staff members, including one parking enforcement officer. The MPD currently utilizes 7 marked patrol vehicles, five unmarked vehicles, two K-9 vehicles, a snowmobile, a park patrol vehicle, an Animal Control Officer vehicle, a municipal cargo vehicle, and a marine/dive trailer.

Water and Sanitary Service

Water Supply

Due to its location of the shores of Lake Superior, the City of Marquette enjoys an abundant supply of water. Lake Superior is considered to be a generally clean source of water, particularly in the Marquette area, which is one of the best on the entire lake with regard to turbidity (water clarity). The coldness of the Lake also contributes to its purity. The City owned water treatment plant, completed in 1979, services most of the community plus a portion of Marquette Township.

The total service district is approximately eight square miles, which is adequate to provide service to the large majority of city residents. Areas that don't currently have city supplied water are located primarily in the southern portions of the city where existing natural conditions have made development difficult.

The water treatment plant is a 7 MGD (million gallons/day) water pumping facility with low service pumping, high service pumping, treated water storage, and chemical feed (chlorination and fluoridation, and sodium hydroxide used for corrosion control).

To enhance water purity and comply with new Federal and State regulations regarding surface water supplies, the City in 1997 constructed a new water filtration facility with increased disinfecting time. In addition to the small storage facility at the treatment plant, storage is handled by three 1 MG ground storage facilities. The distribution system consists of over ninety miles of water mains, made up of 4 to 18 inch diameter pipe constructed of mostly cast or ductile iron (see Figure 7.1 on page 7-3). The City has been continuing its efforts to upgrade its water mains, with areas of older, substandard mains being upgraded first.

Wastewater

Wastewater disposal is provided by the Marquette Area's Wastewater Treatment Facility. In addition to serving the City, the wastewater treatment plant serves certain built up areas in the adjacent townships of Chocolay and Marquette. The wastewater collection system contains 75 miles of 4-inch to 30-inch diameter sewers that are mostly vitrified clay pipe or concrete with some PVC pipe. Similar to the pattern of water distribution, the sanitary services cover most of the City, with exceptions in the south where development has been limited (refer to Figure 7.2 on p age 7-5). Like the water distribution system, the City has a long-range program for replacing older sewer mains on a need/priority basis, completing inspections on a yearly rotation.

Constructed adjacent to the outlet of the Carp River in 1980, the Wastewater Treatment Facility provides secondary treatment with chemical additions, and has extensive expansion capacity to accommodate future development. Wastewater treatment

primarily involves settling, biological contactors, digestors, sludge de-watering, and de-chlorination. December 2012 marked the completion of a new biosolids storage facility, creating additional disposal options and increased profit from the marketing of biosolid fertilizer to outside sources.

Figure 7.1: Water Service Area

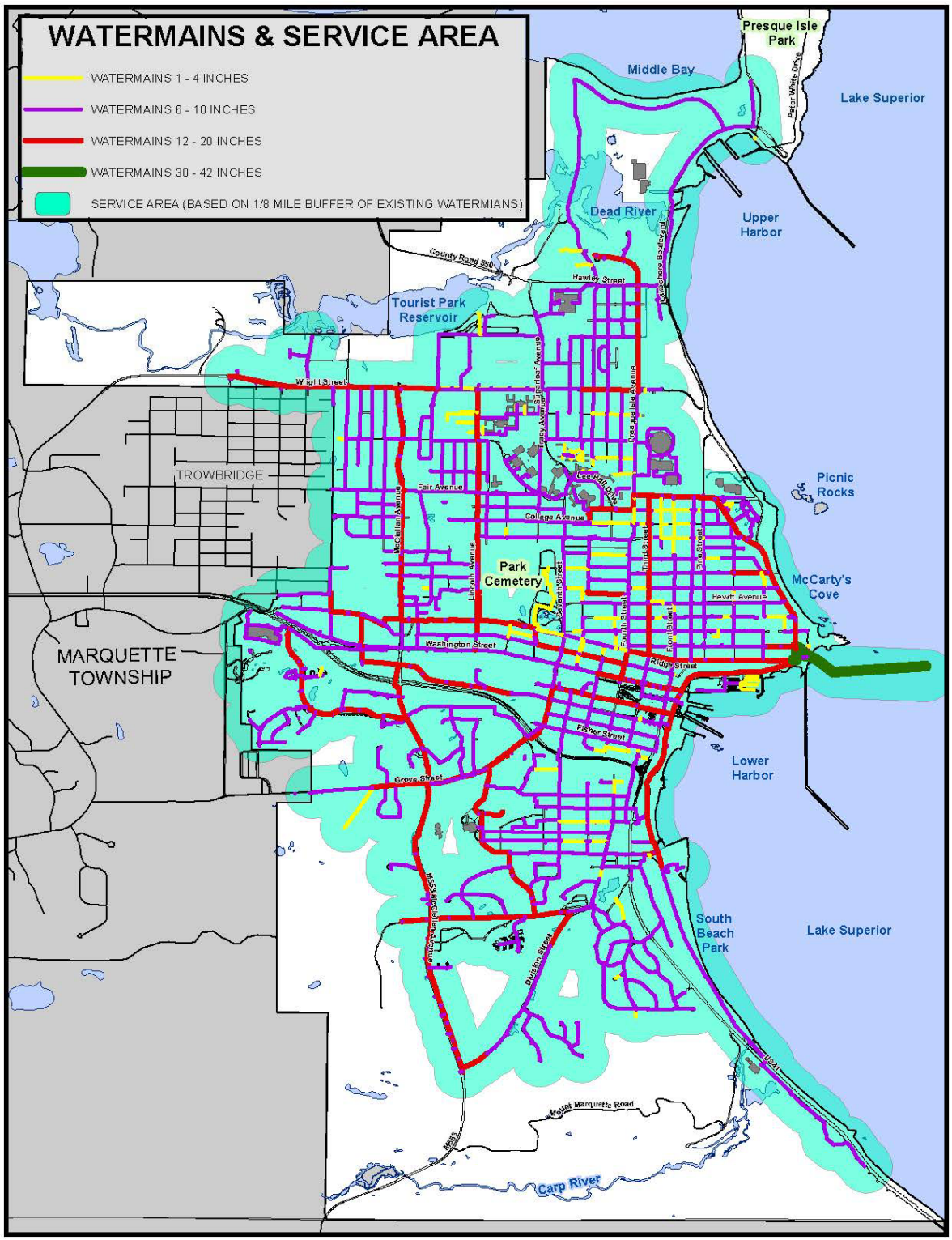
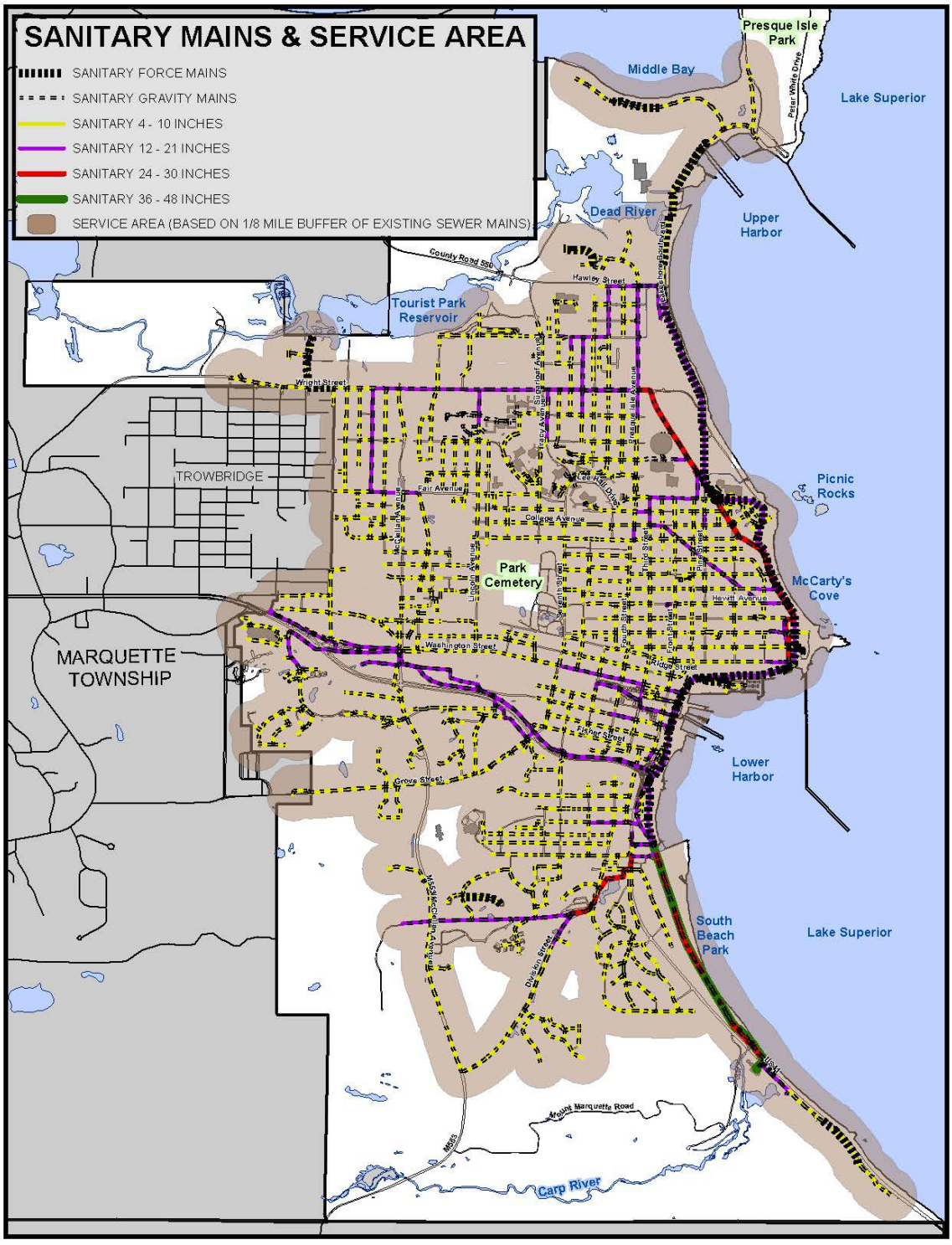


Figure 7.2: Sanitary Water Service Area



Capital Improvements Program (CIP)

Water, sewer, and road infrastructure is built and maintained within annual budget parameters, and as guided by the CIP and its annually-updated program of improvements. See p. 2-15 and Appendix F for more information regarding the CIP.

Public Education

In recent years the Marquette area has been operating with one dedicated "Class A" public high school (Marquette Senior High School), one dedicated public middle school, and three dedicated public elementary schools. An alternative public high school has been operating in the Graveraet School building (which housed the public high school until 1964). Additionally, the North Star Public School Academy, chartered by Northern Michigan University, hosts grades K-12 in Marquette Township. The one public middle school located in Marquette, has been the Bothwell Middle School, adjacent to Superior Hill Elementary in southern Marquette. Public elementary schools include Superior Hills and Sandy Knoll in the City, and Cherry Creek in Chocolay Township. Vandenboom School in Marquette Township has been the site of elementary special education classes and the YMCA Early Childhood Development Center (pre-school). With the exception of the Graveraet School building, which has been renovated (see photo below), the public schools in Marquette are of a modern design with ample recreational facilities.

The Marquette Area Public Schools board voted in December 2013 to implement a school re-alignment, which was begun with the 2014-2015 school year. The plan has converted Graveraet into an elementary school, and has streamlined grade levels at the three other elementary schools, creating four K-5 elementary schools (some with new school transportation boundaries). This is to some degree a return to the more sustainable "neighborhood schools" model, particularly in the case of Graveraet School.

Parochial schools in Marquette include Father Marquette Elementary School and Father Marquette Middle School.



A view of the beautiful Graveraet School from Front Street.

Regional Institutions

Marquette is home to two key regional institutions: Northern Michigan University, a state run institution of higher learning; and Marquette General Hospital, a regional medical care facility.



Northern Michigan University

Northern Michigan University first opened its doors in 1899 as Northern State Normal School. The school received "university" status in 1963 and began to see an increasing enrollment, fed primarily by the influx of post-WWII baby boomers entering college. Sixteen new buildings were constructed between the late '50s and '60s as the enrollment increased from 900 to more than 7,000 students. After reaching a peak enrollment of approximately 9,300 students in the early 1980s, enrollment has fluctuated. Northern Michigan University had an enrollment of 9,159 students during fall 2012, with approximately 400 faculty members on a modern 300-acre campus. The curriculum includes a broad range of liberal arts, career-based and pre-professional educational programs. The highest degree level presently offered is the master's degree.

The University has a variety of recreational/athletic facilities available to the residents of Marquette. The $10 million, 185,000 square foot Physical-Education Instructional Facility (PEIF), completed in 1976, contains wrestling and weight training rooms, dance studio, gymnastics area, eight-lane swimming pool with adjacent diving well, basketball court, handball-racquetball courts, sports medicine areas, locker rooms, and saunas. The adjacent Berry Events Center (BEC), opened in 1999, showcases an Olympic sized ice rink and arena, facilitating 3,754 people. Home to NMU Wildcats' Hockey and Basketball, the BEC also previously hosted multiple ISU World Cup Short Track Speedskating events and U.S. Speedskating Olympic Trials. The BEC also operates as a large concert venue, and is open to the public for reservation through NMU.

The U.S. Olympic Education Center (USOEC), which has produced many Olympic-medal winning athletes, is also located on the NMU campus, with USOEC athletes making extensive use of the PIEF and other campus athletic facilities. Speed skating, wieghtlifting, and boxing are featured programs of the USOEC at the NMU campus.

The University's outdoor facilities include a quarter mile track, 16 tennis courts, track and field hockey areas, two baseball diamonds and nearby Longyear Forest informal hiking trails. Most of the University's facilities are available to the public on an intermittent basis, some of which entail user fees and/or recreation program memberships. NMU also offers a variety of instructional sports and recreation classes for youth and adults through their Community Outreach Program.

NMU is home to the world's largest wooden dome facility, the Superior Dome. Opened in September 1991, the indoor all-events center cost nearly $22 million to build. The dome contains the world's largest indoor retractable turf carpet and is the site of college and high school football games, track meets/conventions, trade shows, and other large events. Facilities available to the public include an indoor 200 meter track, tennis, volleyball, and basketball courts.



The Superior Dome on the NMU Campus

NMU adopted a Campus Master Plan in 2008, focusing on a 15- to 20-year planning horizon. This planning initiative addressedgrowth opportunities, image and identity, spatial efficiency and land utilization, community interface, new partnerships, and the development of a learner-centered, pedestrian-oriented educational community. The university embarked on this Campus Master Plan with the overarching premise to create a well ordered, safe, educationally effective, and distinctive university environment. To achieve this unity, the plan recommends strengthening existing physical relationships, challenging inefficient campus patterns, and developing compelling new patterns.

The Campus Master Plan's core organizational precepts are derived from the following common goals:

1. Assess the campus's infill capacity and ideal organization.
2. Reinforce the campus's unique lakefront environment.
3. Provide a high-quality image and identity for the institution.
4. Improve the physical environment for students.
5. Develop partnership opportunities.
6. Establish a flexible planning framework.
7. Create a more pedestrian-friendly environment in the campus core.

The NMU Campus Master Plan recommends several initiatives, organized by broad and actionable topics, which provide for a potential campus "renaissance." The following

opportunities that will or may require partnering with the City and other institutions are recommended in the Campus Master Plan:

- Enhance the "Front Doors" to Campus
    - Develop Presque Isle Avenue as the primary identity corridor for the university. Create a "university district" along this corridor. Introduce a gateway element at West Kaye Avenue.
    - Connect West Kaye and West Fair Avenues between North Fourth and North Seventh Streets. Work collaboratively with Marquette General Hospital to enhance the streetscape environment of this corridor.
    - Enhance Wright Street as a boulevard from Lincoln Avenue to Lake Shore Boulevard. Develop this as another "university district."

- Develop one campus. Repair the "separate zones" of the campus with walkways, building infill, open space connections, and/or view corridors. Categorically, the disconnected components of campus include:
    - Athletic campus (east campus between Presque Isle Avenue and Lake Superior)
    - Original academic core (west of Presque Isle Avenue)
    - New academic core (west of North Seventh Street and Tracy Avenue)
    - Lower campus (east of Tracy Avenue)
    - Residence life cluster (south of Wright Street)
    - Jacobetti Complex and Services Building (north of Wright Street)

- Create a Lakefront Campus
    - Enable pedestrian and non-motorized east-west connections from the athletic campus across Presque Isle Avenue to the academic core.
    - Develop traffic calming and deliberate pedestrian crosswalks along Presque Isle Avenue.
    - Maintain and enhance viewsheds between the academic core and Lake Superior. Use the topography advantageously.

- Create a Research and Technology Corridor
    - Between Wright Street and Union Street, and Sugar Loaf Avenue and Neidhart Avenue. This is an alternate land use location as suggested in the City of Marquette's 2004 Community Master Plan.
    - Utilize this proposed land use with the Jacobetti Complex and the Services Building to strengthen the connection to the academic core.

In July of 2012 members of the NMU facilities management staff presented some more refined ideas of plans for the campus, including the following:

- The elimination of Seventh Street, if the Kaye/Fair connection is made, in order to improve the pedestrian environment/conditions of the main campus.
- Focusing the development of a "technology corridor" between the main sciences campus and the Jacobetti Center.

UP Health System - Marquette

Marquette General Hospital (MGH) has been the central focus of the region's medical community since its inception in 1973, when Marquette's two community hospitals, St. Mary's and St. Luke's, merged. MGH was designated a "regional medical center" in 1985 by the Federal Health Care Financing Administration, and the hospital grew physically and programmatically through its enhanced specialized secondary and tertiary services.

MGH was renamed UP Health System - Marquette (UPHSM) in the fall of 2014. As a 315-bed specialty care hospital, UPHSM receives patients from throughout Upper Michigan, and provides care in approximately 65 specialties and subspecialties. The medical staff consists of more than 200 doctors, with approximately 1,800 employees caring for 12,000 inpatients and more than 350,000 outpatients each year.

In 2012 the non-profit MGH was purchased by the LifePoint corporation, in partnership with Duke University (for clinical expertise). Duke-LifePoint announced in September of 2013 that the hospital would be re-locating to a new site, and in the fall of 2014 an agreement was reached between Duke-LifePoint and the City of Marquette for a new medical campus to be built on W. Baraga St., just west of downtown Marquette on property the municipality has owned. As of this writing, the construction of the new UPHSM medical campus is projected to begin in the spring of 2016, and it has not yet been determined what will be done with any of the current hospital campus structures.



UP Health System - Marquette (formerly MGH), view from Magnetic Street.

Presently, UPHSM's major services include a Heart Institute, Cancer Center, Brain & Spine Center, Rehabilitation Center, Behavioral Health, Digestive Health, Weight Loss Center, and Women's & Children's Center. Numerous primary and specialty care physician offices as well as home health services. UPHSM also provides the region's premier services in imaging, surgery and laboratory, and are home to the UP Telehealth Network, a leading telehealth network in the nation. Collaborations with Northern Michigan University resulted in the formation of the Upper Michigan Brain Tumor Center, which conducts primary research on the formation of brain tumors. As a teaching hospital, UPHSM has numerous affiliations with universities and community colleges throughout the state and the Midwest in training medical students, family medicine residents, pharmacists, nurses, physical and occupational therapists, nurse anesthetists,

radiographers, surgical technicians and dietitians.

Cultural Venues

Peter White Public Library

Completed in 1904, the Peter White Library is an outstanding and excellently located facility. The original collection has expanded from the original 13,500 volumes to approximately 100,000 volumes today, making it the largest public library in the Upper Peninsula. In addition to providing for City needs, service extends to outlying areas in the County. The library was expanded and modernized by a large renovation project in the late 1990s, increasing available space to 63,000 square feet. The Peter White Public Library won the 2010 National Medal for Museum and Library Service from The Institute of Museum and Library Service (IMLS), one of only five libraries selected to receive the 2010 National Medal. The National Medal is the nation's highest honor for libraries that make extraordinary civic, educational, economic, environmental, and social contributions. It should be noted that supplementing the Peter White Library, reading and research opportunities are provided by NMU's Olsen Library with over 300,000 volumes and the private John M. Longyear Research Library with 7,000 volumes.

The Marquette County Historical Museum

Operated by the Marquette County Historical Society, the State's largest historical organization, the Museum is located adjacent to the Peter White Library on Front Street and is open to the public. The museum features exhibits, artifacts, and research materials related to the heritage and cultural development of Marquette County. The museum has expressed an interest in relocating and expanding on another site.

Upper Peninsula Children's Museum

The UP Children's Museum offers a variety of interactive youth programs. These programs include the "Investigation Station" that features educational opportunities through investigation and creativity. The museum also hosts weekly programs such as story time, an animal exploration program, cooking demonstrations, the "school of rock," and the "8-18 Media" youth journalism program.



Shiras Planetarium

The planetarium is located at Marquette Senior High School, and offers a schedule of public astronomical shows for all age groups.

The Marquette Maritime Museum

The museum is located on Lakeshore Boulevard near the Lower Harbor breakwater in the historic sandstone waterworks building and provides a glimpse of the Great Lakes' and Marquette area's nautical histories. Self-guided displays include exhibits of old boats and marine hardware and memorabilia.

Kaufman Auditorium

The historic Kaufman Auditorium, built in 1928 and renovated in the early 1990's, seats approximately 830 people and serves as the community's only theater specifically designed for performing. The facility is maintained by the Marquette Area Public School

District and is housed in the Graveraet Middle School building. Community and NMU groups utilize Kaufman extensively, with a majority of performances being geared toward the general public.

Forest Roberts Theater

Located on the campus of Northern Michigan University campus, the Forest Roberts Theater is an excellent college theater seating 540 people. University related events dominate the schedule with community groups competing for the few remaining free days. While performances are largely NMU related, most are open to the public.

Reynolds Recital Hall

Located in C.B. Hedgcock Building on the Northern Michigan University campus, this 303-seat venue is an exemplary facility for small concerts, featuring excellent acoustics, a pipe organ and two Steinway grand pianos. Used primarily for NMU Music Department events, this hall is open to reserve for community events.

Other Performing Arts Areas

There are several other locations in Marquette that have been used for performing arts events in the past, most of which were designed for activities completely different and thus are severely limited in their effectiveness. The Lake Superior Theatre provides the opportunity to experience live performances, with a current emphasis in historical musical dramas, at a former boathouse located just east of Mattson Park on Lakeshore Boulevard. Some other areas used in the past have been St. Peter's Cathedral, the Marquette High School auditorium, the Superior Dome, the Berry Events Center and Lakeview Arena. The Superior Dome, Berry Events Center and Lakeview Arena are currently used for large, single event performances (such as nationally known music acts) that attract several thousand spectators. These arenas serve adequately in this regard, though they suffer from somewhat poor acoustics.

Art Galleries/Visual Arts

The *DeVos Art Museum* at Northern Michigan University opened in February of 2005 after the completion of the new museum building, designed by HGA Architects. The museum is part of the School of Art and Design at Northern Michigan University (NMU) and also serves as a regional art museum for the Upper Peninsula of Michigan. The DeVos Art Museum grew directly out of Lee Hall Gallery, established in 1975 to serve the Art & Design Department at NMU as a departmental gallery showcasing student and faculty work. The role of the gallery eventually grew to include rotating exhibitions of national artists, a permanent art collection of over 1,000 objects, and a docent program and outdoor sculpture walk.

The DeVos Art Museum is expanding its role at the University and in the community. With a generous endowment and state of the art gallery spaces, the museum is focusing on exhibiting regional, national and international contemporary art. The mission of The DeVos Art Museum is to provide the University and local communities the opportunity to experience original works of art and to foster educational opportunities for all audiences through exhibitions, programs and publications. Through the vast academic resources at Northern Michigan University, the museum aims to become an artistic learning laboratory for NMU, the Upper Peninsula of Michigan and the Upper Midwest region.

The *Marquette Arts Center* is located in the Peter White Public Library. The Art Center is comprised of four large workshop rooms, a retail gallery where local artists can sell their art, a community room with a stage and two gallery exhibit areas which are shared with our library partners. In addition to providing gallery and workshop space, the Arts Center provides services to more than 300 local artists and organizations. The facility is managed by the City of Marquette Arts and Culture division of the Community Services Department, which serves to encourage, develop and facilitate an enriched environment of artistic, creative and cultural activity. See Chapter 11 for more Arts and Culture information.

Recreational Parks and Open Space

The City of Marquette abounds with some 640 acres of public recreation land (see Figure 7.3 on p.7-15). Hilly to rugged terrain and natural landforms characterize much of the City, although it is Lake Superior with its rocky shoreline and sand beaches that dominates the visual landscape. The scenic beauty of the lake shoreline is also one of the City's greatest assets with regard to economic development. Such natural assets - the unique physiographic setting and a distinct climate - enables the City to offer a variety of recreational programs and facilities not practical or feasible in other communities. In addition to the public recreation lands located within the City limits, many nearby local, county, state and federal parks are available for public recreation. The following is a summary of parks and recreation facilities available in Marquette, for more information the City maintains a *5-Year Recreation Plan*, which can be found on its Parks and Recreation Department website (http://www.mqtcty.org/parks.php).

Regional Parks

Presque Isle Park and Marina



A new Presque Isle Park entrance sign was dedicated in 2013.

Marquette's recreational crown jewel is located on Presque Isle, a 323-acre forested oval-shaped headland that juts into Lake Superior at the northern tip of the City. Only 15 acres of "the Island" (as it is referred to locally) has been developed for recreation, on the southern margin and isthmus areas. Preserving the natural splendor of this park has been the top priority since world-renown landscape architect Frederick Law Olmstead urged the City to do so in 1891, after visiting the site as a park design consultant. Major facilities at the year-round park include Moosewood Nature Center, picnic areas, cross-country ski/nature trails, tennis courts, grassy open areas, a scenic perimeter drive, playgrounds, a historic wooden bandshell and log-cabin style pavilion open for private rental. There is a summer music program hosted at the band shell, and several annual events are held in the Park. Most of the improvements are concentrated in the south part of the park near the entrance. Presque Isle is also the site of the Upper Harbor breakwater and lighthouse and the City-owned 97 slip Presque Isle Marina. It is the intention of the City of Marquette to preserve this space indefinitely for current and future residents and visitors to enjoy.

Tourist Park

Located off County Road 550 on a reservoir of the Dead River, the 40-acre park provides visitors and residents with a swimming beach, fishing, hiking, picnicking facilities, and a campground with 110 campsites. Facilities also include hot showers, restrooms/flush toilets, and sanitary dump stations. The park is situated next to Marquette Board of Light and Power's hydroelectric dam, reconstructed in 2012 after the 2003 flood that destroyed the previous dam. The park has been the site of the annual Hiawatha Music Festival, held in July, for many years. A dog park is provided in a section of Tourist Park during the camping off-season, and may be used with an off-leash permit.

Ellwood A. Mattson Lower Harbor Park and Cinder Pond Marina

Located on Lakeshore Boulevard just north of the ore dock in Marquette's Lower Harbor, the 22-acre park has a large grassy open space, park benches, picnic tables, playground, concession stand/restrooms, a shoreline bike path running through the length of the park and an illuminated walkway (period style lighting) paralleling the waterfront. The park has become the City's most popular site for special summer events, regional festivals, concerts, fireworks displays, and other large gatherings.
A 100 slip municipal marina was constructed in 1995 at the east end of the park at the Cinder Pond site. In 2013 the fish cleaning facility was enhanced by the addition of a hanging station for fish and a new park sign.



Ellwood A. Mattson Lower Harbor Park in Foreground
Photo courtesy of Superior Watershed Partnership Shoreviewer

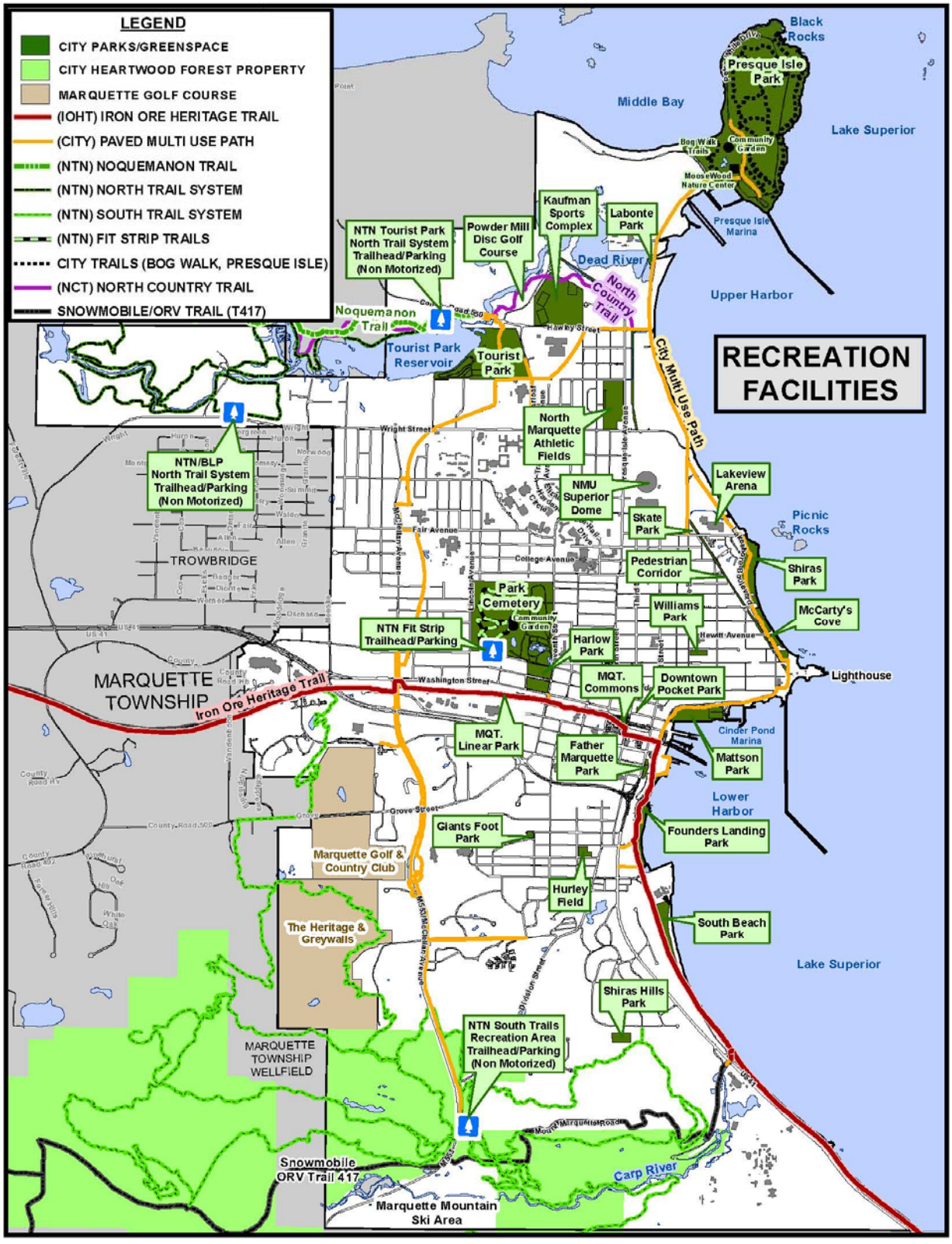


Figure 7.3: Recreational Facilities

Community Parks and Playgrounds



Bikeway adjacent to the L. Superior shoreline

Lake Superior Shoreline

The City of Marquette has approximately ten miles of shoreline along Lake Superior, the majority of which is taken up by open space and recreational facilities. Facilities such as Presque Isle Park, Shiras Park/Picnic Rocks, Mattson Lower Harbor Park, and South Park Beach are all situated along the Lake Superior Shore. A paved bike path runs the length of the shoreline between Presque Isle and the southern City limits, leading to the US Highway 41 *Pure Michigan* Welcome Center and Harvey Township. The path which runs the area of shoreline south of South Park Beach to the City limits was recently completed in 2012. The photo at right shows part of the City's first bike path.

Shiras Park

Located off Lakeshore Boulevard on the shore of Lake Superior, Shiras Park spans from Picnic Rocks near the eastern terminus of Fair Ave. on the north to McCarty's Cove (adjacent to the U.S. Coast Guard Station) to the south. Along with grassy open space and picnic tables, principal features include a lengthy sand swimming beach, a linear shoreline bike path, a natural dune environment and coastal pine woodlands, and abundant vehicular parking areas. The Park was a gift to the City and its residents by George Shiras III (see Ch. 12 for more information about Mr. Shiras) in 1938.

North Marquette Athletic Field

North Marquette Athletic Field, located on Presque Isle Avenue, contains a softball diamond, two regulation baseball diamonds, a junior baseball diamond, basketball court, playground equipment, outdoor ice rink (lighted), restrooms, soccer field, and spectator bleachers including barrier free design seating. This facility is mainly used by Marquette area softball and baseball leagues.

Marquette Skate Park

Recently completed with the help of many community interests in 2013, the Marquette Skate Park offers children a free and legal place to skate. Showcasing asphalt ramps, obstacles and a street course, this park lies adjacent to the YMCA and Lakeview Arena on Pine Street. The City and community partners funded the construction of the park.



Marquette Skate Park, built 2013 next to Lakeview Arena

Hurley Field
Hurley Field is located in a residential neighborhood in the heart of "South Marquette". The 2.5-acre facility includes a lighted outdoor softball field and adjoining tot lot and basketball court. With a long-standing fast pitch softball tradition, it is arguably Marquette's most popular and busiest ball field.

River Park Sports Complex
Located in the north part of Marquette off Hawley Street, it is the City's newest community softball/soccer field development. The complex also includes North State BMX, a dirt BMX course that hosts local BMX competitions. Future phases at the large acreage site include lighting, concession/restroom facility, and additional ball fields.

Mount Marquette Lookout
Mount Marquette is located in the south part of the City in undeveloped wooded terrain. Accessed by Mount Marquette Road near the Carp River, a lookout at the summit provides a scenic, panoramic view of the City of Marquette and Lake Superior. A groomed snowmobile trail and hiking trails are also located at the site.

Fit-Strip/Cemetery Cross-Country Trail
Located in the central part of the City at the southwest corner of the Park Cemetery, this recreational site contains lighted cross-country ski trails during the winter months. The pathways also serve as jogging trails in the summer and include developed exercise stations.

South Beach Park
Located immediately south of the municipal power plant off of Lake Street in South Marquette, South Beach has a swimming beach on Lake Superior with a lifeguard, handicapped accessible restrooms, a viewing platform facing the lake, and a paved parking area.

Neighborhood Parks and Playgrounds

Williams Park
Williams Park is located off Ohio Street across the roadway from Parkview Elementary School. The 2-acre park has tennis courts, a basketball court, tot lot equipment, park benches, landscaped/terraced area, picnic tables, and a paved play area.

Harlow Park
One of Marquette's older parks, this 5-acre site is located on the north side of Washington Street, south of the park cemetery. It has a grassy open space, numerous benches and trees, paved play area, tot lot equipment, and a basketball court.

Shiras Hills Park and Giants Foot Park
These relatively small facilities are located in the south part of the City in



Giants Foot Neighborhood Park

two residential neighborhoods. Both include hard playing surfaces, basketball court, playground equipment, and grassy open space.

Indoor Community Recreation Facilities

Lakeview Arena and Marquette YMCA

Built in 1974, the Lakeview Arena is located on East Fair Street at Lakeshore Boulevard near Lake Superior. It is a 72,000 square foot facility designed for multiple uses. The Lakeview Arena houses the Parks and Recreation department offices and a variety of recreational activities including public skating, junior and adult hockey programs, figure skating, rental skates, and ice rental for community groups and organizations. It is also used by the Marquette Senior High School and the Marquette Electricians for their home hockey games. Besides a two-ice sheet arena, Lakeview is also rented out for various public and private events and shows. Lakeview is available May through August as a large reception/banquet hall with seating for up to 600 guests. Lakeview Arena also provides wireless internet.

The Marquette YMCA location was built in 1999, attached to the west side of Lakeview Arena. The Marquette Facility features the Wellness Center complete with a variety of cardiovascular and strength training equipment; the Kids' Gym padded area for young children, and the Kidz Zone drop-in program and the Y Lounge for older youth members; a gymnasium/basketball court; a pool with a slide and rain tree, as well as a hot tub and sauna; and group exercise classes; with access to showers and lockers with membership and day passes. A renovation to expand the facility began in the fall of 2014.

There are several privately-operated fitness facilities in the City of Marquette, but the recently-opened *U.P. Sportsplex* bears mentioning due to the wide variety of offerings and its policy of public day-use and other non-membership options for year-round sports activities. Soccer, floor hockey, lacrosse, tennis, golf, baseball batting, flag football, and roller skating are all offered at this facility located on Wright Street.

Miscellaneous Green Space

Father Marquette/Lakeside Park

Located immediately north and south respectively of the Marquette Chamber of Commerce building, these small green areas overlook Lake Superior and Marquette's Lower Harbor. Features include grassy open space, landscaping, benches, and a statue monument of Father Jacques Marquette.

Washington St. Pocket Park

This small park fronting Washington Street in the downtown core consists of a grassy area with benches and lighting nestled between commercial buildings. The park is also used for seasonal noon concerts and is accessible by elevator from the city parking ramp to the rear in addition to the street.

Spring Street Park

This 3-acre park is located near the Snowberry Heights senior housing complex on Spring Street. The park currently consists of a large grassy open space with concrete walks meandering the location. The space is used as an outdoor ice rink during the winter months.

Nearby Trail Networks

Figure 7-3 on p.7-15 includes major trails described below.

North Country Trail

Passing through Marquette on its 4,600 mile journey across the Northern United States, the North Country Trail offers spectacular hiking, single track mountain biking and long distance running in the summer, with snowshoeing and backcountry Nordic skiing in the winter. Maintained through a joint effort by the National Park Services, community support and local volunteers, the NCT winds up from the Michigan Welcome Center along Lake Superior and cuts inland on Wright Street, crossing by the River Park Sports Complex and Tourist Park on its way to Sugarloaf Mountain and Wetmore's Landing trails. The course of the trail is obscured on Fig. 7-3 by the legend, but it traverses forested near-shore areas with some stunning views northwest of the City limits.

Iron Ore Heritage Trail

The IOHT will be a 48 mile paved corridor that connects historical mining communities across Marquette County, stretching from Republic to Chocolay Townships. While still under development, the trail currently travels into Marquette south from Harvey Township, connecting to the City Multi Use Path on Spring Street and continues west into Marquette Township towards Negaunee. The trail offers access to businesses, green places and historical sites and information as well as a paved asphalt surface for recreational activities.



The Iron Ore Heritage Trail, traversing Founders Landing

Noquemanon Trail Network (NTN)

A system of mountain biking, snow biking, and cross country skiing trails, the NTN contains two main trail networks, the North and South Marquette trails. The North Marquette trails have been expanded significantly in recent years through the donation by the Marquette Board of Light and Power of land adjacent to the Dead River, and the work of NTN volunteers. To the north, the NTN also follows along the North Country Trail splitting as it heads towards Al-Quaal Recreation Center in Ishpeming. This portion of the NTN covers 25 miles and hosts numerous community races, including the annual Noquemanon Ski Marathon held in early February which usually attracts over one thousand skiers to the area.

South Marquette Trail System

Also part of the NTN network, the "South Trails" are high-caliber mountain bike, snow bike, and running trails in the area. The South Trail network includes the "Grom" trail designed for novice riders, the "Gorgeous" trail along the Carp River gorge, and several inter-connecting loops varying in distance from around two to nine miles (see Figure 7.3). The trails follow International Mountain Biking Association standards and are host to many local and regional competitions. In late 2013 a snow bike trail was dedicated by virtue of regular grooming to allow for "fat bike" riders to access trails on packed snow.

The trails surround Highway M553 on the East and West sides, centering around Marquette Mountain Ski Area and traveling into Marquette and Sands Townships. The trails are maintained by members of the NTN network in addition to local businesses support.

City Multi Use Path

The City of Marquette maintains its own paved path system, encompassing 18 miles of paved pathways through city neighborhoods. The Multi Use Path travels along Lake Superior from the southern city limits to Presque Isle Park, and along a former rail corridor off Hawley St. and passing the High School and Tourist Park, into the western to McClellan Ave./M553 and south to Division Street. The path terminates just south of the trailhead for the NTN "south trails" on M553. An east-west section that traverses the former Soo Line Ore Dock railroad connects the lakeshore to McClellan Avenue at Washington Street, and to the Iron Ore Heritage Trail (IOHT). The IOHT now provides a safe crossing of the US-41/M-28 highway bypass, with the path diverging from McClellan Ave. south of the highway bypass on Baraga St., and across the former Soo Line railroad viaduct, being accessible from Wilson St. on the south side of the highway bypass.

RECOMMENDATIONS

- **Municipal Facilities -** The City of Marquette should demonstrate "green" leadership in facilities operations, choosing options that are environmentally sound and otherwise sustainable, from materials recycling, to vehicle fleet management, to decisions regarding construction and re-construction. Operations should be consolidated wherever possible to conserve resources.
- **Sidewalks and Paths** - Funds should continue to be set aside, and areas near schools should be prioritized, to facilitate sidewalk and bike path maintenance and extensions. Seek *Safe Routes to Schools* funding for further enhancements to the pedestrian and bicycle network. A robust program of winter maintenance to keep pedestrian networks open is vital to a healthy, prosperous community.
- **Winter Focus** - Decisions that affect municipal facilities and amenities should only be made with full consideration of winter, in order to maximize the quality of life and economic impacts of those decisions. Events and activities that help residents get outside during winter months should continue to be developed.
- **Heartwood Forestland** - Much of the NTN's South Trails network is on land that was part of the Heartwood Forestland property acquisition, and the disposition of this municipally-owned property in S. Marquette should be formally established by the adoption of a "sub-area plan" for use and management of the property, in order to guide future investment in the trails network.
- **Lower Harbor Ore Dock -** The City commissioned a structural analysis of the massive dock in 2014 to assess it's condition. The structure has been non-functional for over 40 years, and it is situated on "bottomlands" that are owned and regulated by the State of Michigan. There currently is a 25-year lease in effect (expires Dec. 2023) for use of the bottomlands for the dock (no other use is permitted). The study found that the Ore Dock and its support pilings are generally in good condition, but it does not have accommodations to safely

support any type of public use at present. Public deliberations about the potential for improving the structure, as well as other options should be conducted, and if there are viable productive uses found for the structure, the City should engage the public in visioning and planning for these possible future uses.



Introduction

Marquette's natural environment is widely considered by residents as one of the community's greatest assets. Marquette's unique location along Lake Superior, complemented by its rolling terrain, rock exposures, and heavily wooded areas make for a beautiful landscape, as well as an ecologically rich habitat. This chapter summarizes information about local watersheds, hydrology (streams), wetlands, woodlands, topography (land elevation), and steep slopes. All of the elements are part of the local ecosystem, which supports life in great variety, from terrestrial plants and aquatic organisms that are consumed by people locally and regionally (e.g. potatoes and fish), to insect pollinators and large ruminants like deer. These natural assets are all impacted by human activity and to be sustained in good condition they must be regarded with thoughtful care and managed progressively.

Small energy production and "systems thinking" are also discussed in this chapter, as they relate to the preservation and conservation of natural assets.

Watersheds

As might be expected, the hydrology of the Marquette area is heavily influenced by its adjacency to Lake Superior. This Great Lake borders the City's entire eastern edge and serves as the final outlet for a number of watersheds. The City of Marquette is located primarily within two of these watersheds; the Dead River Watershed and the Whetstone/Orianna Creek Watershed (See Figure 8.1).

The majority of the City is located within the Whetstone/Orianna Creek Watershed. This 3,225-acre drainage area encompasses the southern and eastern portions of the City with its outlet in Marquette Bay. The Dead River watershed is a much larger drainage area, however, only a small portion of the Lower Dead River sub-watershed is located within the City of Marquette. This drainage area includes the northwestern portion of the city with its final outlet in the Presque Isle Harbor. Other watersheds such as the Carp River Watershed and the Compeau Creek Watershed exist on the City's periphery.

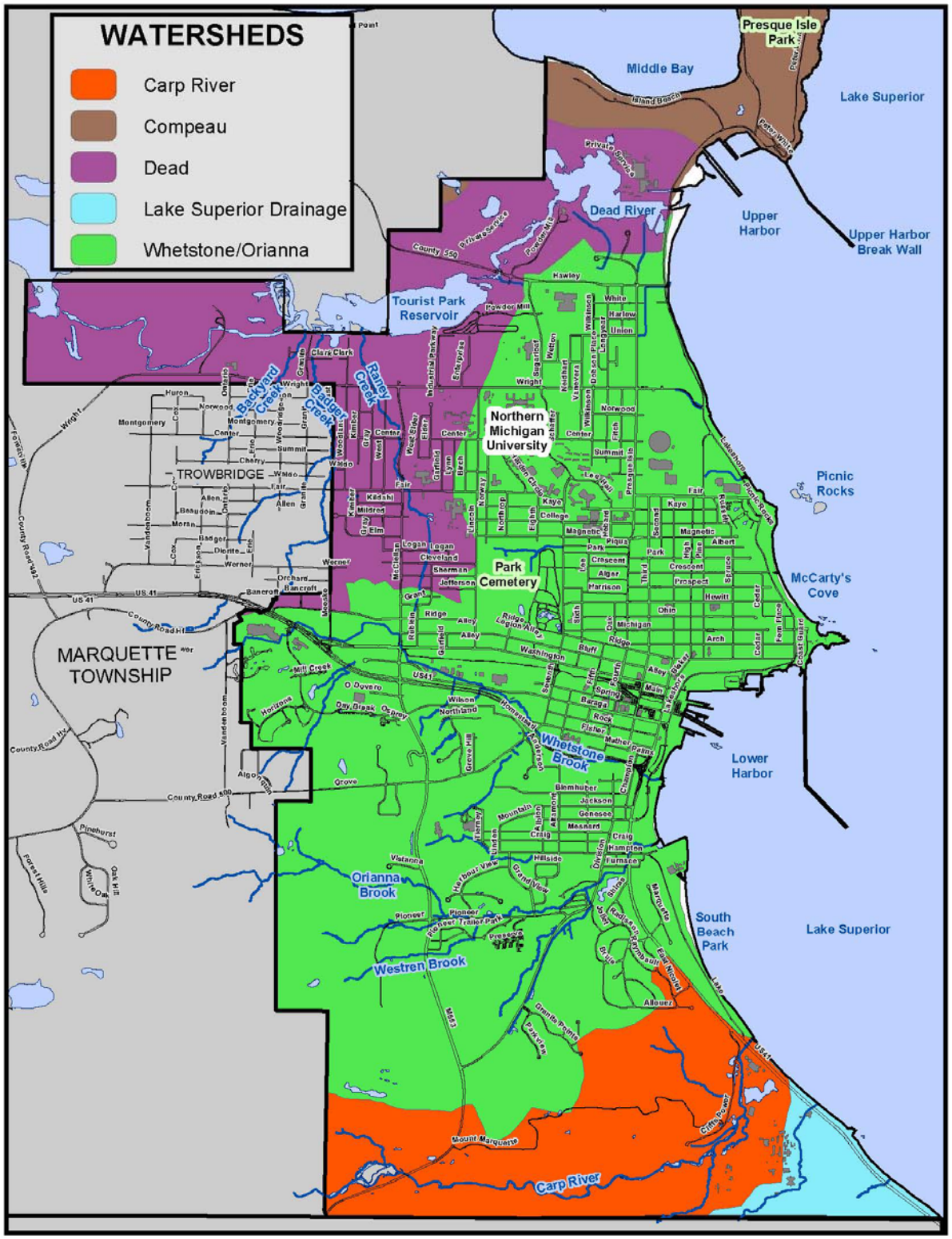


Figure 8.1: Watersheds in the City of Marquette

Hydrology

While each watershed represents the entire drainage area for a particular stream system, that system itself is comprised of many rivers, streams, and tributaries. Figure 8.2 identifies the major stream systems as they relate to the City of Marquette. The largest of these water systems is the Dead River, which empties into Presque Isle Harbor at the far north end of the City. In addition to the Dead River, there are several smaller stream systems within the City limits including the Carp River, Whetstone Brook, Orianna Creek, Billy Butcher Creek, and Raney Creek. See Table 8.1 below.

While some of these stream systems still exist in their natural state, many have been modified through the addition of dams or by channeling the stream in some areas. This is particularly true for the Dead River, Whetstone Brook, and Orianna Creek. While done for primarily industrial or engineering reasons, such modifications to the natural stream channel have significant effects on water quality and the overall health of the stream. To protect and improve the water quality and aquatic habitat of these streams, protective measures such as the implementation of a watershed overlay ordinance, riparian buffer protections, and other regulation and education tools should be employed.

Tributary	Miles
Aqueduct	2.12
Badger Brook	0.30
Billy Butcher Creek	1.08
Buschell Creek	0.45
Carp River	2.80
Dead River	3.49
Migsy Creek	0.78
Orianna Creek	2.21
Raney Creek	1.28
Westren Brook	1.13
Whetstone Brook	2.29
Total	**17.92**

Table 8.1: Rivers and Streams



In order to better protect water quality and aquatic habitat, the development and implementation of a riparian buffer ordinance would be beneficial. A riparian buffer involves designating protected areas adjacent to waterways, to curtail and prevent water pollution via stormwater runoff and sedimentation. Riparian buffer strips have been used successfully along Whetstone Brook and Billy Butcher Creek in recent years.

Whetstone Brook east of Front Street was underground for decades, until being "daylighted" in 2004. This area is now an attraction along the multi-use path that traverses the lower harbor waterfront.

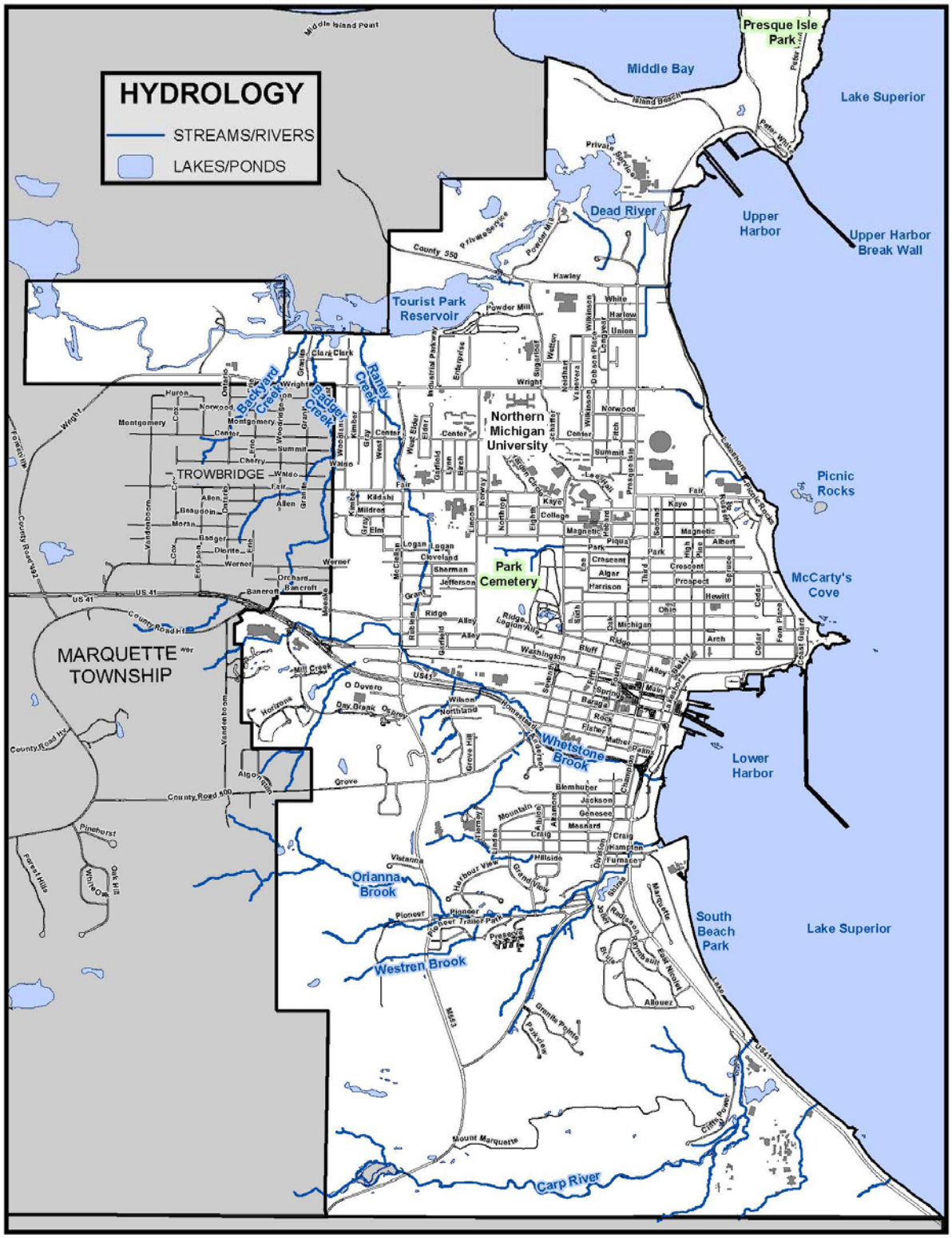


Figure 8.2: Hydrology of the City of Marquette

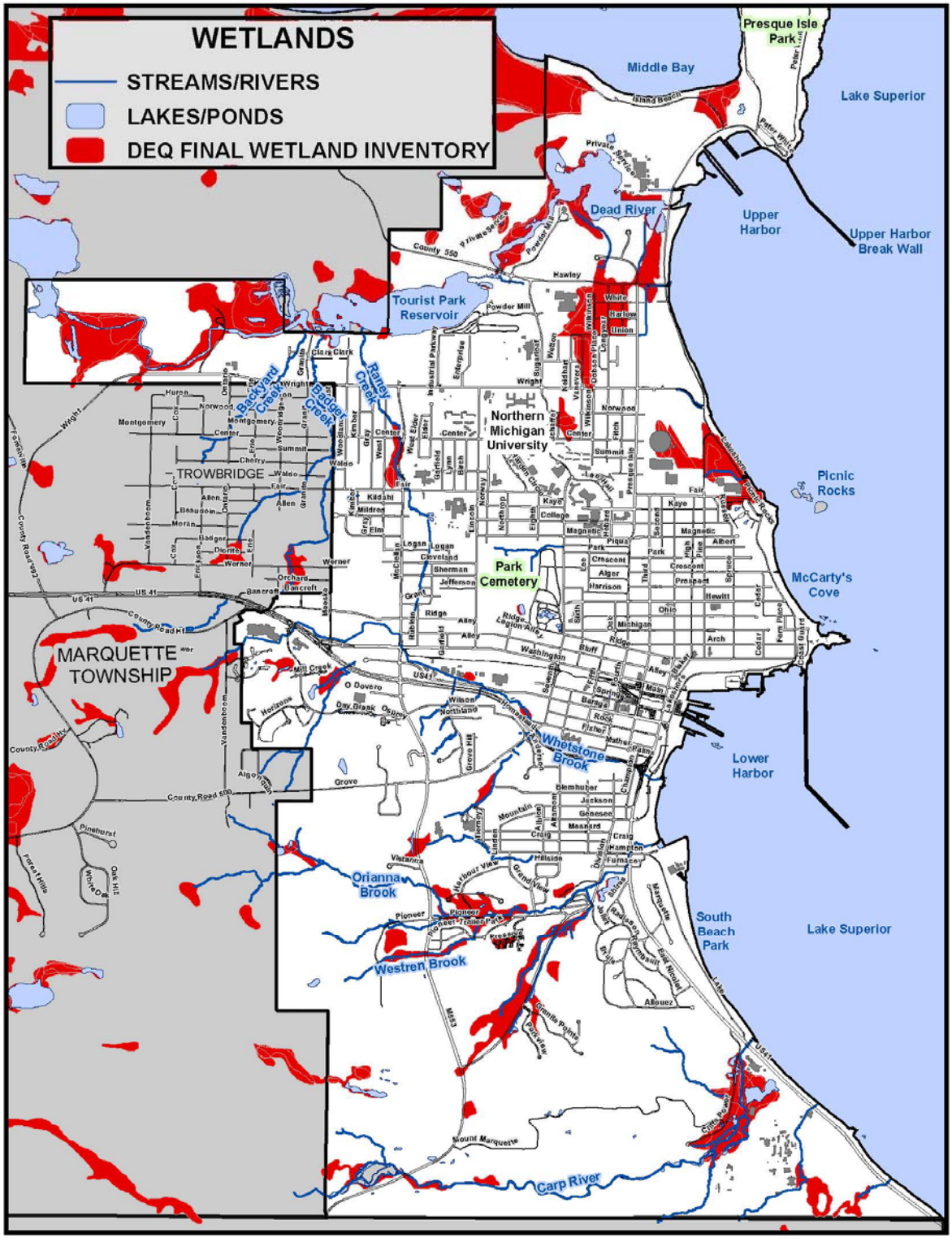


Figure 8.3 Wetlands around the City of Marquette

Watershed protection through riparian buffers are a widely-used tool. The Lake Superior Watershed Partnership outlines a model, three tiered system of buffering, as shown in Figure 8.4 below.

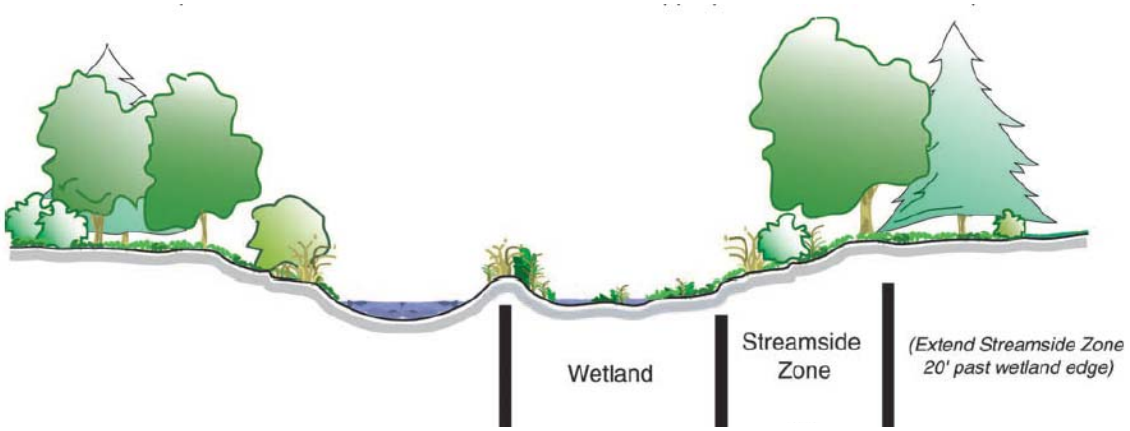


Figure 8.4: Model Riparian Buffer Zones

Zone One, the Streamside zone, extends 25 feet from the edge of the waterway and can only include footpaths, flood control and when permitted road crossings and utility. Zone Two, the Outer Zone, extends out 25 feet from the Streamside zone and may include bike/hiking trails, stormwater management, recreational uses and mature tree cover removal. The zones could extend further if wetlands or steep slopes are present. In these cases the riparian buffer zone extends 20 feet past the border of the wetland, or a chosen number of feet further based upon elevation grade.

Wetlands

In general, wetlands are defined as land characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation or aquatic life. These can be further categorized according to the source of the water:

- Lacustrine – wetlands associated with lakes
- Riverine – wetlands associated with river systems
- Palustrine – inland wetlands that lack a connection to flowing water

Wetlands serve several important natural functions including flood and storm control; wildlife habitat; natural pollution treatment; water recharge areas; erosion control; and assisting in the improvement of water quality. Due to the important contributions these wetlands make to an area's ecology, they are protected under the Goemaere-Anderson Wetland Protection Act (1979). This legislation protects wetlands by restricting their use to certain activities (fishing, boating, farming, others) while permitting other activities only after approval by the State of Michigan. Permits are approved only after a review of an Environmental Assessment is filed by a petitioner, and upon a finding that the activity or use is in the public interest.

Relatively few wetlands exist within the City of Marquette (See Figure 8.3), although at one time there were extensive wetlands north of the ridge beyond Ridge Street. Those that remain are located primarily in the far northern portion of the city, adjacent to the Dead River water system, and also adjacent to the Carp River to the far south. The Presque Isle Bog, discussed below, is a unique wetland area that offers an interpretive

experience via a boardwalk that can be accessed near the entrance to the Moosewood Nature Center on Presque Isle Park. Other wetlands exist in small pockets throughout the city, such as near Lakeview Arena, the Superior Dome, Quarry Pond, or within the Park Cemetery. Larger wetland areas do exist outside, but within close proximity, to the City. This is particularly true to the north near Partridge Bay and Middle Bay.

The Presque Isle Bog area is cherished as one of the truly great assets in the City of Marquette. An extensive wetland area developed on the Presque Isle isthmus over a period of 10,000 years since the retreat of the last Ice Age. The area is characterized by dunes and swales consistent with Lake Superior coastal wetlands. The bog remained untouched by man until around 100 years ago, when urban development resulted in the the northern portion of this wetland becoming filled with debris such as concrete, metal bars, and other types of industrial and construction waste. The need to reverse developmental impacts and restore the area to its natural state was an elusive goal of the community for many decades.

The City, in partnership with state, federal, and private partners, sought resources and funding to address the full cost of mitigation requirements. In cooperation with the Superior Watershed Partnership, the Moosewood Nature Center, the Michigan DEQ, and other state and federal agencies, a study was conducted (and made available to the public), entitled *Conceptual Wetland Mitigation Plan for the City of Marquette McClellan Avenue Extension Project*. The study identified three areas in the Presque Isle Bog that were candidates for remediation, and from that study two sites were selected for restoration.

The areas considered were identified as having vast amounts of rubble and other industrial and construction debris that had previously overlaid the natural environment in the wetland. These candidate areas were accepted by the DEQ as wetland mitigation sites, and a permit was issued for their restoration.

In 2011, tons of man-made materials and fill were removed, and native soils and plant species were be restored. These remediated wetlands are expected to naturally increase biodiversity, and restore the surrounding bog areas for native wildlife, as well as for the appreciation of visitors to the bog walk. The remediated site provides habitat not only for migratory and resident birds, but will also restore a native ecosystem required by other mammals, reptiles, amphibians, insects, and plant species.

Implementation of the restoration was under consideration for decades, although specific resources were greatly increased when the ability to link remediation funding to other community construction was achieved in coordination with the McClellan Ave. extension project. Over 21 local public meetings took place beginning in January 2001, with approximately 7 of those occurring after 2009, to ensure public input was collected and provided as part of the stringent state and federal permitting process. The permits also require site monitoring for a 10-year period to ensure steps necessary for successful re-establishment of native species and removal of invasive species are undertaken as required.



Newly established, floating vegetative mats define the restored northern portion of the Presque Isle Bog. The bog walk can be seen at lower center. Photo courtesy of Tony Williams.

Woodlands

As shown in Figure 8.5, on page 8-9, a large portion of land area in Marquette is covered in woodland vegetation. The dominant vegetation types include upland hardwoods (oak & maple), aspen, birch, and upland conifers (pine and fir). As indicated by the pattern of woodland coverage, the areas of most extensive forest cover are primarily located in the southern portion of the City and along the Dead River corridor. Other significant forested areas exist on Presque Isle and within the Park Cemetery.

The City of Marquette owns over a thousand acres of forested land in Marquette Township and Sands Township, adjacent to the southwestern border of the City. More information about that property is provided in the Heartwood Forestland section below.

These woodlands not only contribute to Marquette's scenic beauty, but they also provide several nearly free "ecosystem services" including helping to slow runoff and control erosion, filtering air pollutants and producing oxygen, providing important wildlife habitat, and providing wind breaks and shade. Marquette has earned Tree City USA designation by the Arbor Day Foundation 32 times, including in 2012, in honor of its commitment to effective urban forest management. Tree City USA recognition is achieved by meeting the program's four requirements: a tree board or department, a tree-care ordinance, an annual community forestry budget of at least $2 per capita, and an Arbor Day observance and proclamation.

Heartwood Forestland

In 2005, the City of Marquette purchased 2,243 acres of forested lands in the southern area of the City, and in adjacent areas of Marquette Township and Sands Township (see Figure 8.8 on p.8-14), from the Heartwood Forestland Group. The City Commission established the Heartwood Forestland Ad-Hoc Committee (HFAC) in 2009, and approved

funding to formulate a plan for the land. The HFAC was charged with studying all aspects of the property and to make recommendations on its disposition, focusing on potential development, conservation, and creating partnerships for recreational uses.

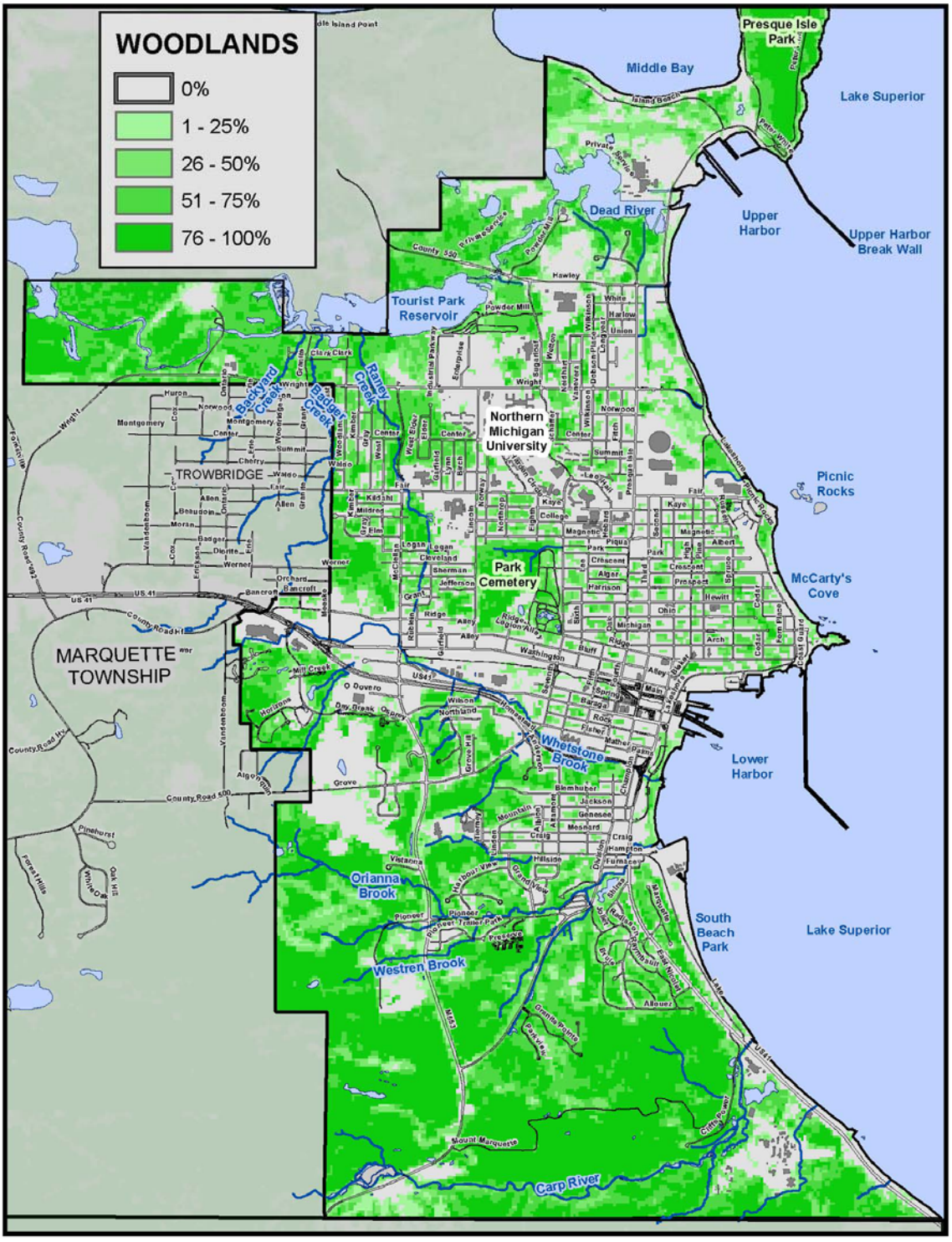


Figure 8.5: Woodland Vegetation
Homer, C. C. Huang, L. Yang, B. Wylie and M. Coan. 2004.Development of a 2001 National Landcover Database for the United States. Photogrammetric Engineering and Remote Sensing, Vol. 70, No. 7, July 2004, pp. 829-840.

The HFAC did not create a plan, but produced a report with a series of categorized recommendations, including that unexpended funds dedicated to the project (>$29,500) be used to conduct a comprehensive study and to develop a plan for these forested areas. This planning has not yet been conducted.

The Heartwood Forestland Ad-Hoc Committee recommended to set aside 1,063 acres for conservation and public recreation, with 929.7 acres potentially open to development, but advised to institute a riparian buffer overlay zone to protect stream courses from erosion and sedimentation. The Committee also designated 251 acres as "Areas of Deferred Development." These areas maintain access to M-553 and other transportation infrastructure, creating potential for commercial and residential development, but also contain parts of a valued trail system. As well, the Ad-Hoc Committee suggested creating a "watershed residential zoning" classification to regulate any residential development on the property (as recommended in the 2004 Community Master Plan for riparian and wetland areas), which is explained in more detail in Chapter 5 of this document.

The Planning Commission (PC) reviewed the HFAC report in detail and made further, refined recommendations regarding the disposition of the property both on an interim and a long-range basis. In February 2011 the PC outlined a series of recommendations for the consideration of the City Commission, including a recommendation that a community-wide planning process take place before any development be permitted.

The PC redefined the classifications of some portions of the property by shifting the classification borders, and also by classifying some of the property with characteristic land elements deserving preservation as "Conservation and Recreation" zones. See Figure 8.6 on the following page for the relevant map. The PC also re-named areas designated as "Deferred Development" by the HFAC to "Future Planned Areas," and recommended re-naming the land parcels in other townships that are open to development as "surplus." Parcel 24 was also re-classified into the "Future Planned Area," due to its unique location bordering a major roadway. The PC also recommended leaving a vegetative border alongside the roadways of McClellan Avenue and Division Street to preserve the natural aesthetic of that southern gateway to the City.

Topography

Similar to the rest of Michigan's Upper Peninsula, Marquette's topography is the result of glacial activity. The advance and recession of Lake Superior, with changing levels of ice during the As shown on Figure 8.5, the northern portion of the City generally slopes towards Lake Superior, with a few areas of steeper relief near the Dead River at the City's western edge. The more significant topography is located south of U.S.41-M28, where the terrain is more irregular and slopes are generally steeper. This increase in relief culminates in Mount Marquette, which is located at the City's far south end.

While Marquette's rolling topography provides striking visual beauty, it creates a number of difficulties for the development community. Steep slopes are vulnerable to erosion and are often not suitable for development. In areas where construction is possible, techniques must be used to ensure proper drainage and protect against soil erosion.

Figure 8.6: Planning Commission Recommendations for Heartwood Forestland

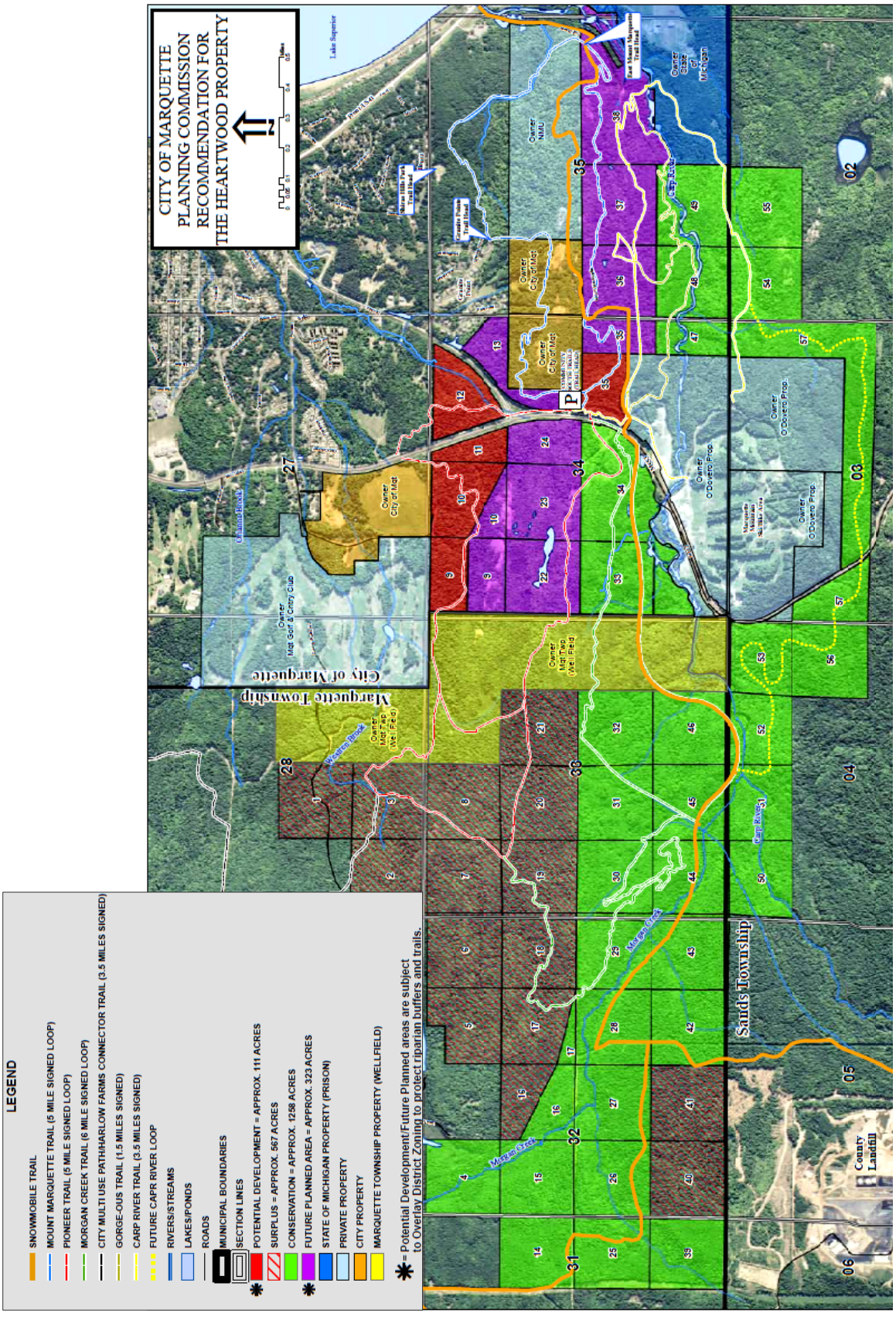
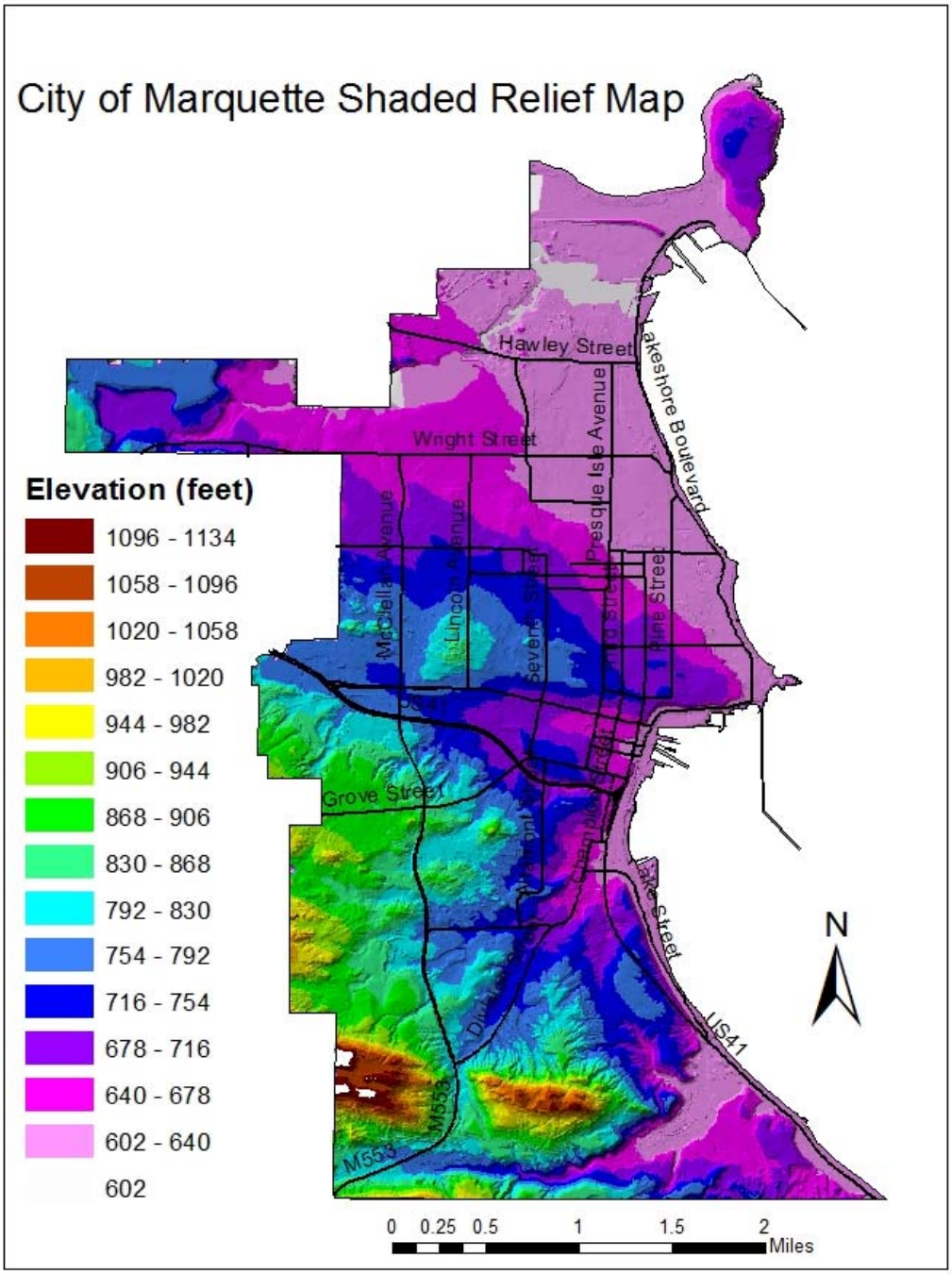


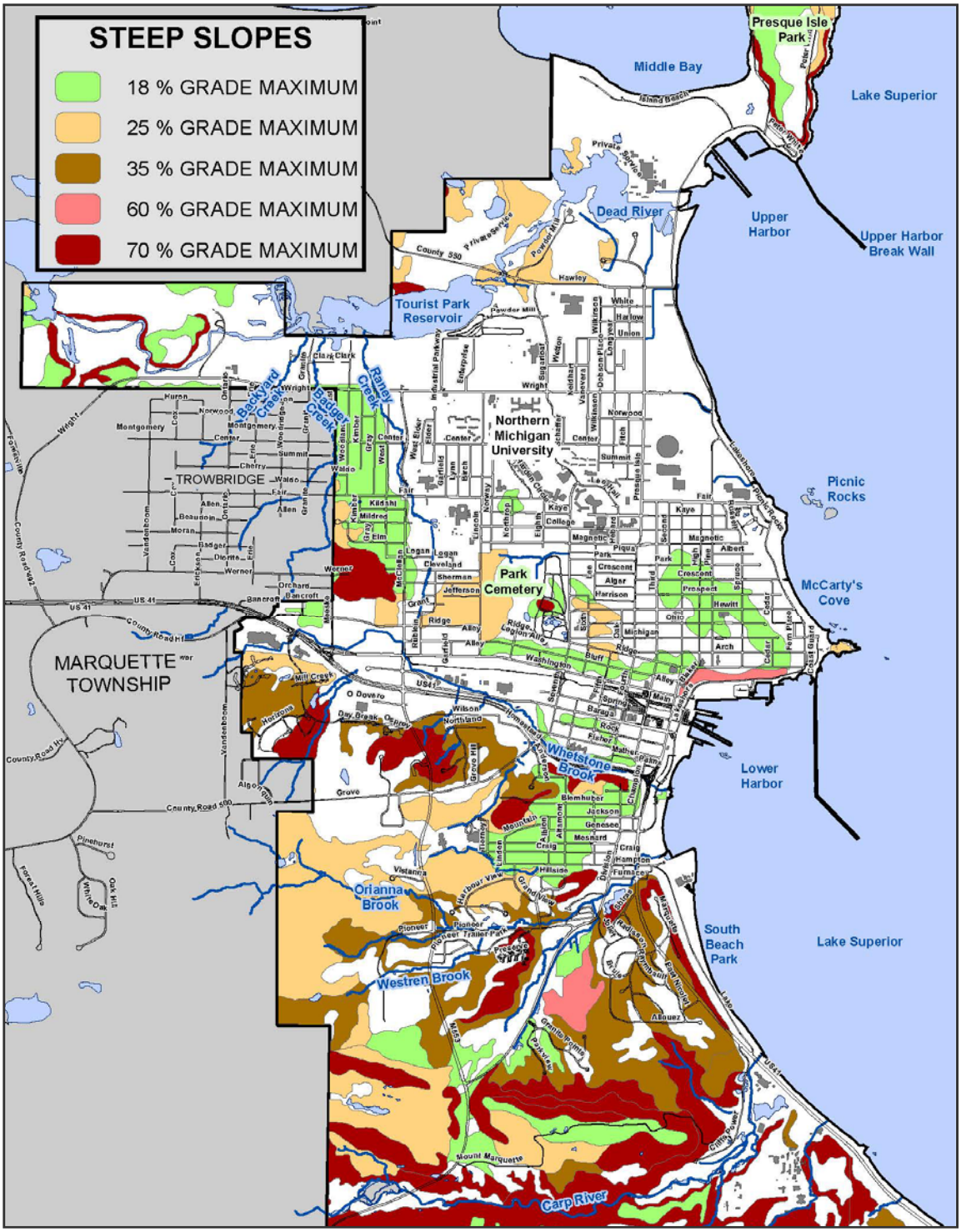
Figure 8.6: Topography of the City of Marquette



Steep Slopes

Figure 8.6 identifies areas within the City that have particularly steep slopes, namely those over 18%. These areas are considered extremely difficult to develop and require significant engineering to protect against erosion. Similar to the pattern demonstrated for a number of the other natural resources, the steepest slopes exist in the southern portion of the city.

Figure 8.7: Steep Slopes in the City of Marquette



The slopes exhibited in this area of the City have affect potential new development considerably, and are a contributing factor for in the presence of extensive woodlands and relatively undisturbed areas in southern portions of Marquette.

The map of steep slopes also identifies areas that are particularly susceptible to soil erosion. Areas that are categorized as a 35% maximum grade are considered to have a moderate risk for soil erosion, while those slopes that are steeper than the 35% have a severe risk of soil erosion if disturbed.

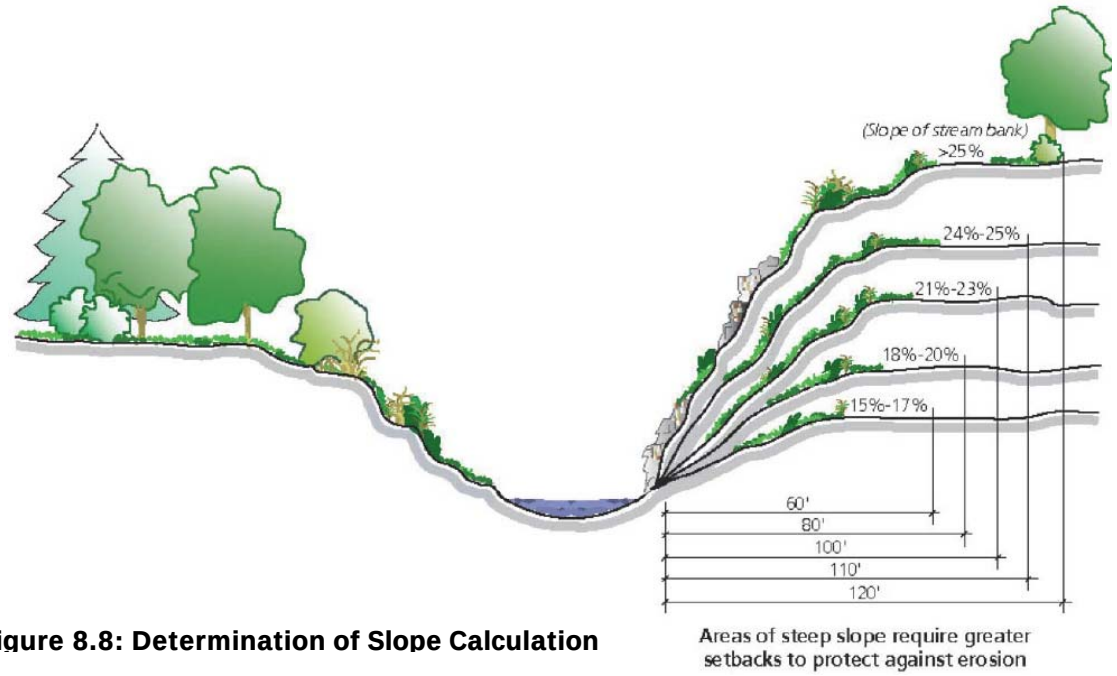


Figure 8.8: Determination of Slope Calculation

Atmosphere and Climate

Clean air may not immediately come to mind when making a mental list of natural resources, but in the past decade air pollution has re-emerged as a serious environmental threat in rapidly industrializing nations, reminding us that we are fortunate to have relatively good air quality in the Marquette area. In 1970, the Clean Air Act (CAA) was signed into law. The CAA and its amendments provides the framework for all pertinent organizations to protect air quality. The Environmental Protection Agency, through its Office of Air Quality Planning and Standards (OAQPS), is charged with preserving and improving the quality of our nation's air. To accomplish this, OAQPS evaluates the status of the atmosphere as compared to clean air standards and historical information, via the EPA's ambient air quality monitoring program that is carried out by State and local agencies.

OAQPS establishes the National Ambient Air Quality Standard (NAAQS) for each of the criteria pollutants, which are common throughout the United States. These pollutants can injure health, harm the environment and cause property damage. The current criteria pollutants are:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO_2)
- Ozone (O_3)
- Particulate matter (PM)
- Sulfur Dioxide (SO_2)

There are three major categories of EPA monitoring stations, but there are currently no stations present in the Upper Peninsula. The EPA produces the online *Air Quality Index* to provide general information to the public about air quality and associated health effects, but this resource is not available locally due to the absence of regional air quality monitoring stations. The main local sources of air pollution are the two coal-fired energy production plants situated on the shores of the City. These plants are subject to federal monitoring and have been retrofitted periodically to comply with changing emissions standards. Due to prevailing west winds, Marquette is not usually subject to ground-level emissions from the power plants.

Climate

Marquette's four-season climate is, like its landscape, an attraction for a large number of residents and visitors. Cool summers and abundant winter snow have contributed to the active lifestyle of many residents, and to a healthy tourism industry. A helpful resource for home gardeners and others interested in climate data is the latest version of the US Dept. of Agriculture's (USDA) *Plant Hardiness Zone Map*. Compared to the previous edition of the map (issued in 1990) zone boundaries have shifted in many areas.

The new map is generally one 5-degree Fahrenheit half-zone warmer than the previous map throughout much of the United States. This map—issued in January 2012—uses data measured at weather stations during the 30-year period of 1976-2005. In contrast, the previous version of this map was based on temperature data from only a 13-year period of 1974-1986. Also, some of the changes in the zones are a result of new, more sophisticated methods for mapping zones between weather stations.

The Upper Peninsula region is shown in an excerpt of the map shown below in figure 8.8. Marquette is in Zone 5b, with an average lowest winter temperature of -15 to -10 Fahrenheit. Low temperature during the winter is a crucial factor in the survival of plants at specific locations.

Plant hardiness zone designations represent the average annual extreme minimum temperatures at a given location during a particular time period. The full map and more information is available online at www.planthardiness.ars.usda.gov.

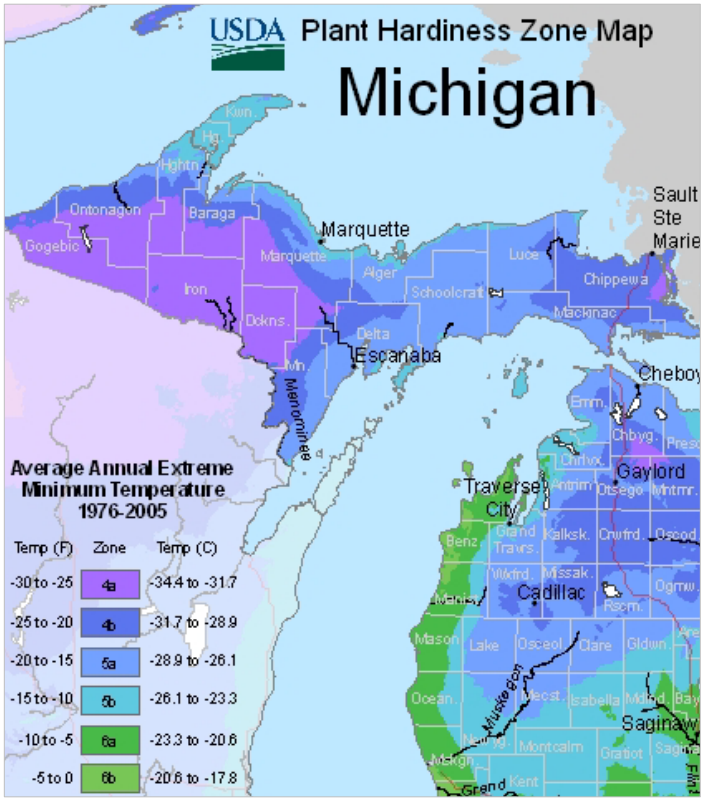


Figure 8.9: USDA Plant Hardiness Zone Map (2012)

A preponderance of evidence indicates that the climate here, and globally, is changing and trending towards warming. But, for at least two decades the preoccupation with the uncertainty of climate change predictions has hindered the implementation of adaptation policies. A paradigm shift toward mainstreaming climate change into development planning is now occurring in cities and nations around the world. By taking into consideration the range of possible risks and vulnerabilities that may arise from future climate and socioeconomic change scenarios, this mainstreaming can reduce the reliance on certainty in predictions when developing plans for a community. The subsequent increase in a community's resilience in the face of change is likely to lead to development that is more sustainable.

To that end, the City of Marquette and the Superior Watershed Partnership and Land Trust applied for and were awarded a technical assistance grant for the development of a Climate Change Adaptation Plan. That plan was developed in 2013 and is summarized in Appendix C of this document.

ENERGY PRODUCTION

Locally, large-scale electricity production may for decades to come continue to rely mainly on coal transported from Wyoming and Montana, or other fossil fuels to power "the grid," although some large solar and wind energy projects have been successful in the Great Lakes region. For a variety of reasons including reducing greenhouse gas emissions and self-sufficiency, there is strong public interest in small, renewable energy systems, especially wind, solar (photovoltaic and water-thermal), and wood boilers. Each of these three types of small renewable energy systems are already in use in Marquette County, and during visioning workshops for this Plan update, residents of the City of Marquette have expressed interest in the ability to utilize these alternatives to large-scale (grid) energy, or as enhancements to grid energy.

The State of Michigan provides for residential "net metering," allowing for the sales of energy above what is required to power a residence, thus a resident may utilize both alternative energy systems while concurrently connected to the grid, and sell excess energy from alternative systems (above what is needed to power their home) back to the grid-energy provider. Most residences won't achieve this level of self-sufficiency given the technology of the day, but as costs for alternative systems come down and technology improves there will be more homes that can become energy self-sufficient. There may also be commercial applications for solar and wind systems within the City of Marquette, and a future desire by a grid energy producer to use wind and/or solar generating systems. These would be welcome developments given both the limited production capacity of the municipal power plant and the overwhelming ratio of fossil fuels currently used to produce electricity locally (over 96%, see p.7-2).

ENVIRONMENTAL SUSTAINABILITY

There are a variety of definitions of the term "sustainability," and there are various alternative terms that have come into modern usage, such as "resilience." In defining environmental sustainability or resilience, conservation and protection of natural resources and ecosystems are central to a credible definition, with the provision of these resources for future generations the ultimate goal. Also worth considering is the question of who or what does the sustainability relate to? Is it just human sustainability?

According to the Michigan Department of Environmental Quality (source: MDEQ website):

> "Sustainability helps us to evaluate the choices we make and suggests a more effective means of doing business... A strong financial case for sustainability exists as institutions, businesses, and individuals use sustainability to modify current practices making them more effective, saving capital and time. Today sustainability has evolved into an institutional framework endorsed by the United Nations and World Business Council. Sustainability is being implemented in the United States in a wide variety of settings from organizational management and building design to educational institutions."

Figure 8.10 below displays a contemporary representation depicting sustainability as the balance between three interacting systems - social progress, economic stability, and environmental stewardship - and provides examples of sustainability in each of the three overlapping areas.

Figure 8.10: Sustainability Triple-Value Model (source: Colorado School of Mines)



The sustainability of both the *economic system* and the *social system* depend on the availability of services from the *environmental system*. The services provided by the environmental system, otherwise known as ecosystem services, include provision of food, fuel, materials, water, and energy, as well as flood protection, climate regulation, pollination, and a host of other essential services. Although ecosystem services may be

difficult to measure, recognition of the potential value of "green infrastructure" has expanded in recent years and led to serious efforts to quantify dollar values of ecosystem components such as mature trees, tree canopy cover, wetlands, and so forth. Many communities, including Marquette, routinely seek green infrastructure solutions for the potential cost savings over "grey (built) infrastructure" installation and maintenance.

SYSTEMS THINKING

When we make routine decisions, and even committee decisions, they are often based primarily on "bottom line" factors, be it monetary or social costs/gains. However, it is widely understood that economic decisions have impacts that directly or indirectly affect the environment, as do primarily social decisions, and decisions about how we alter, protect, or conserve the environment have social and economic impacts. Thinking and acting with economic, social, and environmental concerns all taken into consideration is known as "systems thinking" and it is a responsible foundation for decision making that should be further developed into a practice for sustainable outcomes. Systems-thinking relies on understanding the linkages and interactions both within and among systems, which generally involve cyclical feedback loops rather than linear cause-and-effect relationships. As a result, systems-thinking allows for a better understanding of the complex and dynamic relationships among systems, and facilitates a comprehensive understanding of potential consequences of system change arising from new policies, new technologies, new operating practices and new values.

RECOMMENDATIONS

- **Riparian Buffer Ordinance -** The development of an ordinance to control stormwater runoff and sedimentation into streams by the use of riparian buffer zones is needed, as there are several streams in the City that collect stormwater runoff and drain into Lake Superior.

- **Watershed Residential Zoning -** In order to help balance the need for new development with the need for resource protection, the Master Plan promotes the use of a new residential zoning designation called "Watershed Residential." This type of residential land use is particularly relevant in the southern portion of the City where new development pressures threaten to degrade the existing natural resources. This land use designation would require development in this zone to meet certain design standards established to limit development on environmentally sensitive areas such as steep slopes and along stream corridors (See Ch. 2 for more details).

- **Heartwood Forestland** - The City should, with maximum expediency, undertake and complete a formal determination process for land uses and conservation priorities for the former Heartwood Forestland property. Residential, commercial, and industrial development should be prohibited on this property until the process has resulted in adopted guidance for relevant land uses.

- **Alternative Energy Production Systems** - The City should create land development ordinance provisions to permit the use of alternative energy

production systems within the city limits, for both small residential and commercial applications, as well as larger systems for industrial applications.

- **Climate Change Adaptation -** Implementation of recommendations of the 2013 *Adaptation to Climate Change and Variability* report that is summarized in Appendix C of this document will be addressed by the Planning Commission during their work sessions for annual review of this Master Plan, with the intent to attempt to systematically and consistently initiate implementation of the many recommendations.

- **Sustainability and Systems Analysis -** Environmental sustainability regards the preservation or protection of natural resources and or ecosystems, and considers who or what the circumstances are sustainable for. Thinking and acting with economic, social, and environmental concerns all taken into consideration is a responsible foundation for decision making relevant to sustainability. This process should be further developed into a practice for outcomes that result in the actual sustainability of our environmental assets.



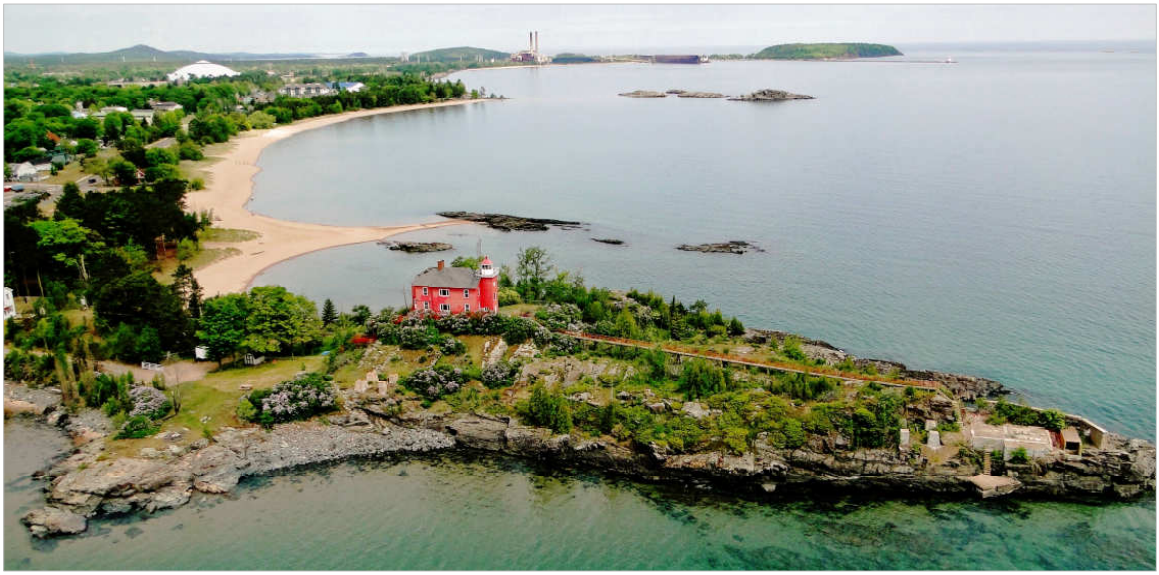


Photo by Cindy DePetro

INTRODUCTION

This chapter provides detailed information about the land uses adjacent to Lake Superior and the Dead River, and previous and present efforts to wisely manage the activities that occur along these shores, and to improve the vitality of the Lower Harbor district.

The City's location on the south shore of Lake Superior is perhaps its most defining physical characteristic. The City recognizes the waterfront as an integral part of the area's appeal to residents and visitors alike. There are approximately 15 miles of water frontage in Marquette, along both Lake Superior and the Dead River. The waterfront is comprised mainly of open space - parks and undeveloped shore - which comprise roughly two-thirds of the Lake Superior and Dead River frontage in the City limits. Remaining land use along the waterfront includes industrial (17%), residential (9%), other (7%), and mixed uses (3%). Figure 9.1 on p. 9-3 displays facilities that are dedicated to public access of the City's waterfront, as well as private facilities.

PUBLIC AMENITIES and ACCESS

Waterfront amenities in the City include two public marinas with boat launches, several waterfront parks, extensive beaches, and Marquette Harbor (a federally recognized deep draft commercial, cargo, and recreational harbor). The ability of the public to access and use the waterfront is of utmost importance to the community. Swimming, fishing, kayaking, sailing, and just enjoying the beaches greatly enhances the quality of life for city of Marquette residents and visitors alike.

The city of Marquette has four public waterfront parks: Shiras Park (including McCarty's Cove), South Beach Park, Mattson Park, Tourist Park, and Presque Isle Park. Another waterfront park is planned for development in north Marquette, with access to both the Dead River and Lake Superior. The future park is to be called Clark Park in honor of the late Marquette resident and entrepreneur Clark Lambrose, who's family generously donated the land for the creation of this park.



A hot day at McCarty's Cove, part of Shiras Park

McCarty's Cove, South Beach, and Tourist Park feature sandy swimming beaches that are guarded during the summer. Between Shiras Park and McCarty's Cove there is approximately one mile of nearly pristine sand beach, with lifeguards patrolling the beaches, and a wave monitoring and flag warning system in place. In addition to the established swimming beaches located within city parks, there is approximately 3000 feet of sandy-to-rocky beach frontage along Lake Superior that runs from the mouth of the Dead River, south along Lakeshore Drive. This section of beach receives frequent use during the summer months. Access to the beaches for the physically disabled is fairly limited at present, with South Beach having the most modern and accessible facilities.



Picnickers enjoy a sunset view from Presque Isle

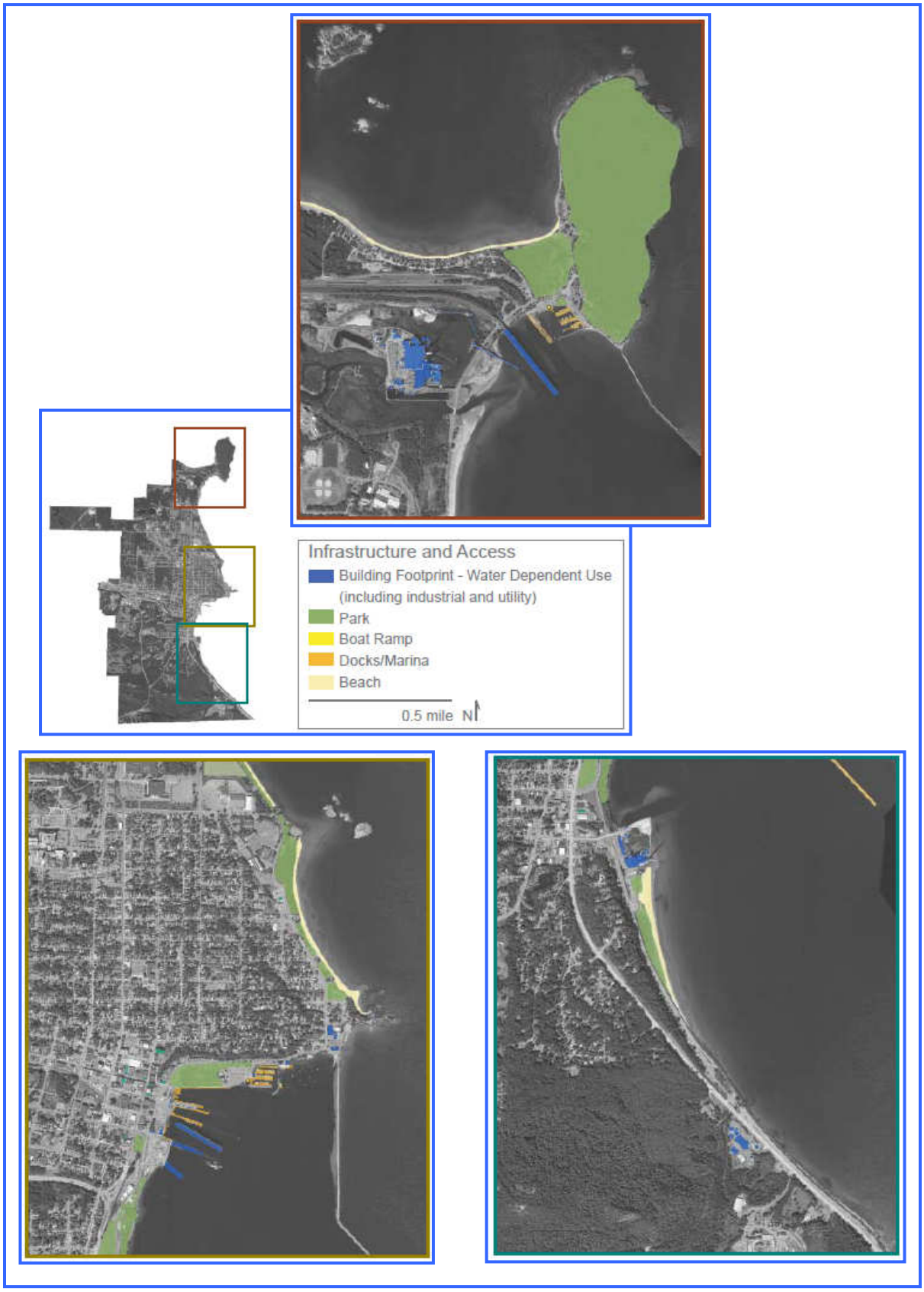
Presque Isle Park is widely considered to be one of the City's greatest natural assets. It can be seen in Fig. 9.1, in the far distance at upper left. The park is a 323 acre forested peninsula with opportunities for recreation and wildlife viewing. Hiking, snowshoeing, biking, swimming, picnicking are all among recreational activities that take place in Presque Isle Park. More information about this "crown jewel" park may be found in Chapter 7.

There are two public marinas located within the city of Marquette. Cinder Pond Marina is located in the lower harbor and has 101 seasonal and transient slips. Presque Isle Marina, located in Upper Harbor, has 97 slips. In addition to the slips, there are boat launch ramps located at both marinas which are open to the public. The Marquette Yacht Club utilizes floating docks in the lower harbor as well, and there is a pier along the south side of Mattson Park in the lower harbor that is used for mooring larger vessels, including charter, research, and Coast Guard vessels, and occasional tall ships. A dedicated site for housing rowing sculls is currently being sought.



A "tall ship" in the lower harbor

Figure 9.1: Waterfront Infrastructure and Access



The Holly S. Greer Shoreline Bike Path and green/open space including Lakeside Park and Father Marquette Park (adjacent parks on Front St.) provide additional opportunities to view the waterfront. Camping near the Dead River Reservoir is offered in Tourist Park. Other waterfront recreational opportunities in Marquette currently include fishing, boat rentals, sea kayak instruction, charter sailing and motor cruises. The Lake Superior Hiawatha Water Trail runs from Munising to Marquette, a naturally inviting span of waterfront for long-distance boating. There are interesting areas for diving along the shores, and surfing in Lake Superior is enjoyed by some hearty wave seekers when the water is agitated. Many hiking and biking paths are adjacent to Lake Superior as well.

There are a number of different fishing options along the waterfront within the city limits. Anglers have an opportunity to catch coho salmon, chinook salmon, steelhead trout, lake trout, and brown trout. Fishing spots include the break wall in Lower Harbor and the warm water discharge from the power plant in Upper Harbor. The lower portions and mouths of both the Carp river and the Dead river are located within the City of Marquette and both of these rivers receive annual spawning runs of salmon and steelhead, and are also home to resident brook trout. There is a public fish cleaning station in Mattson Park as well, along the north side of the parking lot.

WORKING WATERFRONT

In the last two centuries, shipping and the iron ore industry dominated Marquette's economy, although many other commodities were also transferred through port facilities prior to national-scale railroad and highway development. Fishing and marine services were for a long time more prominent industries in and around Marquette. Commercial and industrial use of the waterfront is not nearly at the level it once was, but when evaluating options for a wide range of compatible future activities, it is essential to take into consideration the commercial and industrial uses that still exist along the waterfront.



Marquette's lower harbor, once known as "Iron Bay" contains many remnant pilings of former docks, and the former Soo Line "pocket ore dock" made of concrete and steel. Thill's Fish House utilizes the private "Fish Dock" (at far right) for mooring its two boats.

As described in more detail in Chapter 6, there are two Lake Superior ports located in the City of Marquette, known as the Upper Harbor and Lower Harbor ports. The Upper Harbor port is located in North Marquette, between the outlet of the Dead River and Presque Isle. The lower harbor is located in the heart of downtown, in the same area where the first port was established in Marquette Bay, or Iron Bay as it was known for many years. The main import for the Upper Harbor port is coal, and iron ore that is mined at the various Cliffs Natural Resources' mines is the main export commodity. The Board of Light and Power (BLP) operates an inter-modal port facility near the BLP power plant, where the imports for this facility are limestone and coal.

Other than the larger ships coming into port, there are several different types of craft that also frequent the Upper and Lower Harbors that include but are not limited to recreational, commercial operators (IRQ3 and Coasters), commercial fishing, charters, work boats, government vessels (DNR/CG), visiting commercial, and launchers. In 2013, the ports did not have any cruise ships come in, however in 2014 the port is projected to receive approximate 320 ships.

The Lake Superior and Ishpeming (LS&I) Railroad ore dock in the city's Upper Harbor remains active. It has 200 pockets, a capacity of 50,000 tons and loads approximately 400 times a year. The Harbor is a federally authorized deep draft commercial, cargo, and recreational harbor. It is a major receiving port for commodities, including coal and iron ore. Shipping supports over 260 jobs in the area.



A "lake freighter" docked at Marquette's Upper Harbor pocket ore dock

The Lake Superior & Ishpeming Railroad (LSI) primarily exists to transport iron ore over less than 20 miles of tracks, from the Empire-Tilden Mine south of Ishpeming, to the Upper Harbor port in Marquette. It is the only railroad that still has a terminus at a port facility in the City of Marquette.

In addition to the recreational fishing being done in the area, Marquette is presently home to one commercial fishing business, Thill's Fish House. There are various light industrial uses along the waterfront as well, which is discussed further below.

In spite of the integral connection between Marquette's waterfront, economy and identity, the city's public space downtown was previously physically oriented away from the waterfront. As industrial shipping declined and coal and rail yards closed, the disconnect between the waterfront and nearby downtown and the vacant land between the buildings and the water became more apparent. The city's waterfront - characterized in part by abandoned industrial land and infrastructure, outdated facilities, and inadequate public access – was underutilized, added little value to the nearby downtown business district, and had become an eyesore. Additionally, development that was occurring near the waterfront was characteristic of cities in transition: haphazard and failing to blend with surrounding uses. The city realized that without a concerted revitalization effort the city's waterfront would continue to slowly deteriorate.



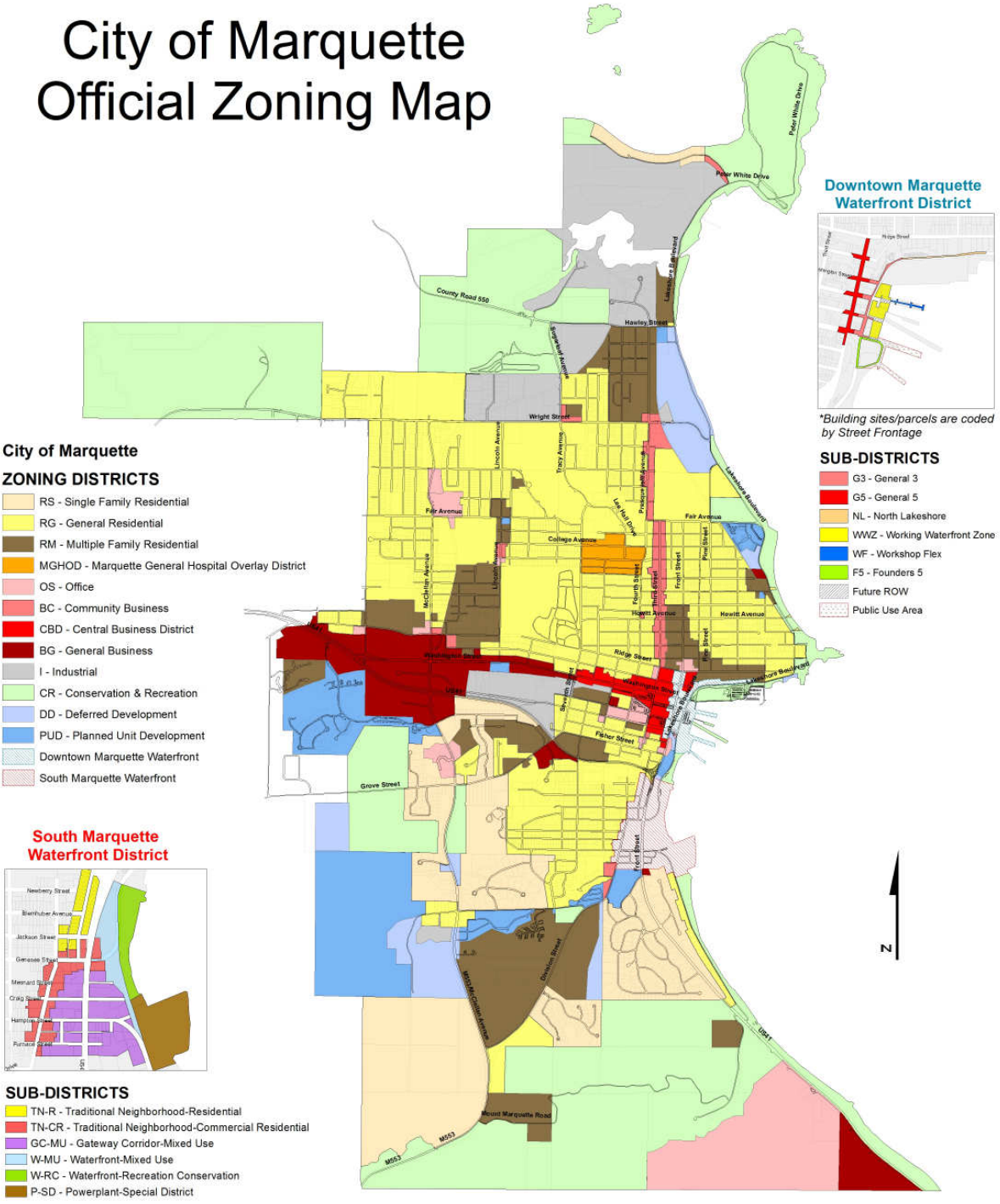
Looking south along present day Lakeshore Blvd. (Baraga St. junction at center bottom), circa 1940. It is obvious that the railroad created a psychic barrier to the waterfront. The rear of buildings face L. Superior. The ongoing Founders Landing development has repurposed this area.

In the late 1990's the city initiated a long-term planning effort with a Lakeshore Taskforce of community members and property owners that sought to identify a vision and strategic plan for the waterfront. In 2000, the City acquired the land and prepared a redevelopment plan for the 25-acre Founders Landing property. The City commissioned a Lower Harbor Study and made improvements to public open space in 2002. In 2003, city planners engaged the community to define a vision for the community and waterfront. In partnership with Michigan Sea Grant, the city participated in the EPA/NOAA Smart Growth Implementation Assistance for Coastal Communities pilot program in 2006. The program provided the city with technical assistance to produce draft "form-based codes" - land-use regulations that that emphasize physical form (rather than the separation of uses, as in conventional zoning) - to guide waterfront development.

As described further in the next section, the form-based codes guide downtown and waterfront redevelopment to create a more economically viable place to live, work and visit as well as to protect water resources in Marquette. In 2008 the City commissioned a marina and public waterfront access facilities master plan and initiated multi-year reconstruction and redevelopment projects. A portion of Founders Landing was sold to local developers for a new hotel in 2009. In 2011, the city prepared a 5 year Recreation Master Plan and hosted a Smart Growth Readiness Assessment Tool workshop with MSU-Extension. During the summer of 2012, City staff conducted two "Waterfront Usage Planning Workshops" at the Presque Isle Pavilion, which were well attended and yielded a plethora of comments for planning consideration (see comments in Appendix A).

ZONING and FORM-BASED CODES

Marquette has ten traditional zoning districts, a Planned Unit Development (PUD) district, and two form-based code districts that are each comprised of six sub-districts. There is also a "deferred development" zone for reserving large undeveloped areas for future development, or for delaying intensive development until utilities and services are available. Figure 9.2, below, displays this land-use regulatory framework.



A majority of identified water-dependent uses are located in Conservation, Recreation, Industrial, and Waterfront Form-Based Code sub-districts.
Marquette's waterfront has transformed from an industry-dominated waterfront into one with a mix of recreational, commercial, and industrial uses. With a decline in industry the City needed to broaden the focus of future development along the waterfront. The City participated in an EPA/NOAA Smart Growth Implementation Assistance for Coastal Communities pilot program, which led to the creation of two waterfront form-based code districts, the Downtown Waterfront Form Based Code and the South Marquette Waterfront Form Based Code. The primary objective of these form based code districts is to link downtown and south Marquette to Lake Superior.

Form-based codes allowed the community to open up to the waterfront, address the scale and orientation of buildings, minimize sprawl, reduce environmental impacts, and create a pedestrian-friendly downtown and waterfront. The two Waterfront Form-Based Code districts are designed to support sustainable, mixed-use infill and redevelopment as part of a vibrant, diverse urban and working waterfront district. They are also intended to promote public access and enjoyment of the waterfront, and protection of water resources.

The Downtown Waterfront District is intended to promote traditional urban form with shop fronts and sidewalk cafes on the street level and residences and offices on the upper floors. There is a strong emphasis on the pedestrian, where the code provides for wide sidewalks and shade trees. The intent is to create a comfortable atmosphere for pedestrians and link foot traffic from downtown to the waterfront, all while maintaining a working waterfront.

The South Marquette Waterfront District provides for sustainable infill redevelopment, and encourages a mixed use pattern. Currently, this area of the city is not as hospitable to the pedestrian as the downtown is. The code is designed to enhance the area from its current state and create a more pedestrian friendly district. There is an emphasis on compact development in order to accomplish this. In addition, there is a conservation sub-district located within the South Marquette Waterfront District. This district is intended to preserve public access to Lake Superior and provide a place for recreational and conservation activities.

The following pages provide more details regarding City zoning, as well as land use activity and water-dependent uses near Lake Superior and the rivers in the City.



This formerly industrial portion of the lower harbor has been opened for public access by a multi-use path, and is being re-developed with more sustainable land uses.

Figure 9.3: Map of Zoning Adjacent to the Waterfront and frontage by zoning category

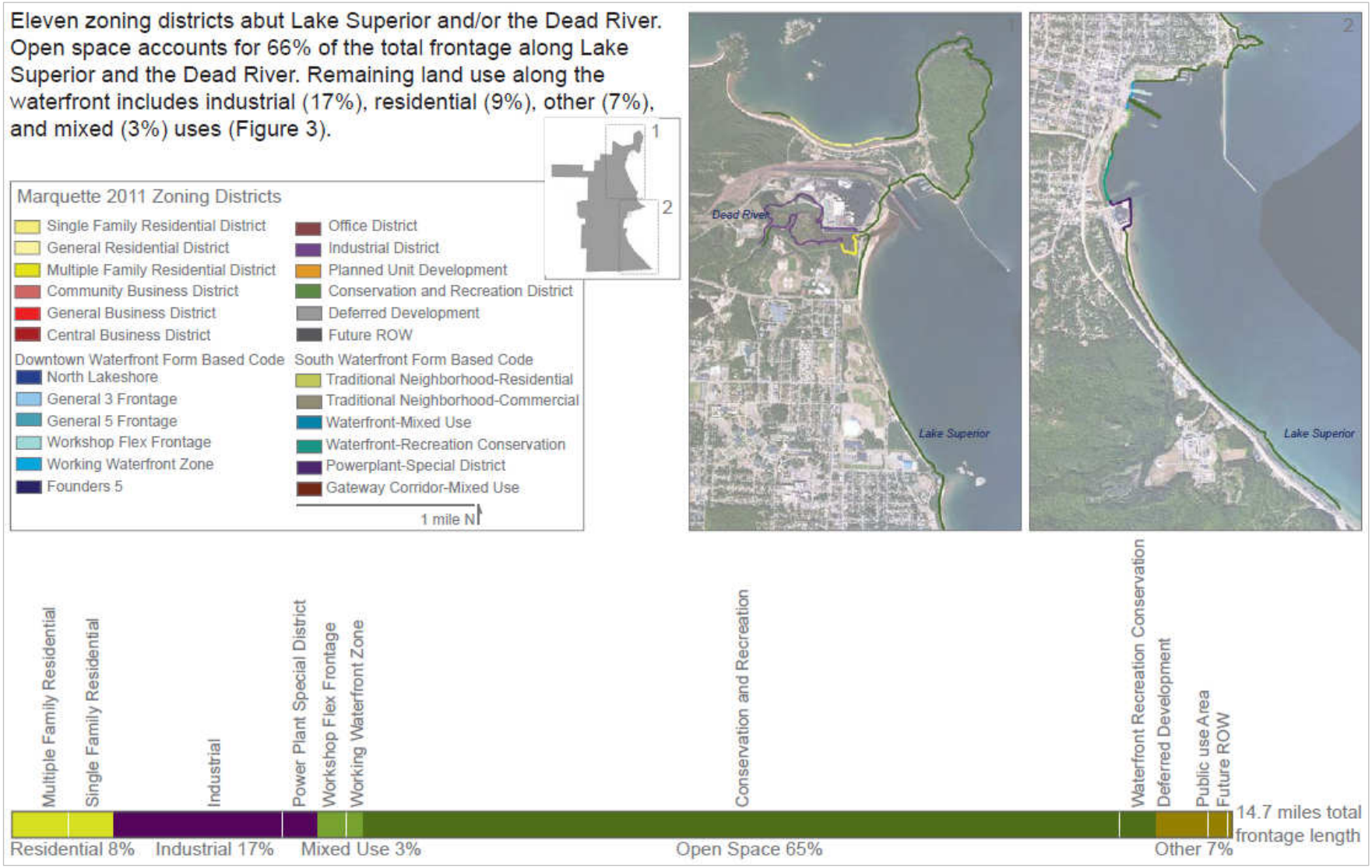
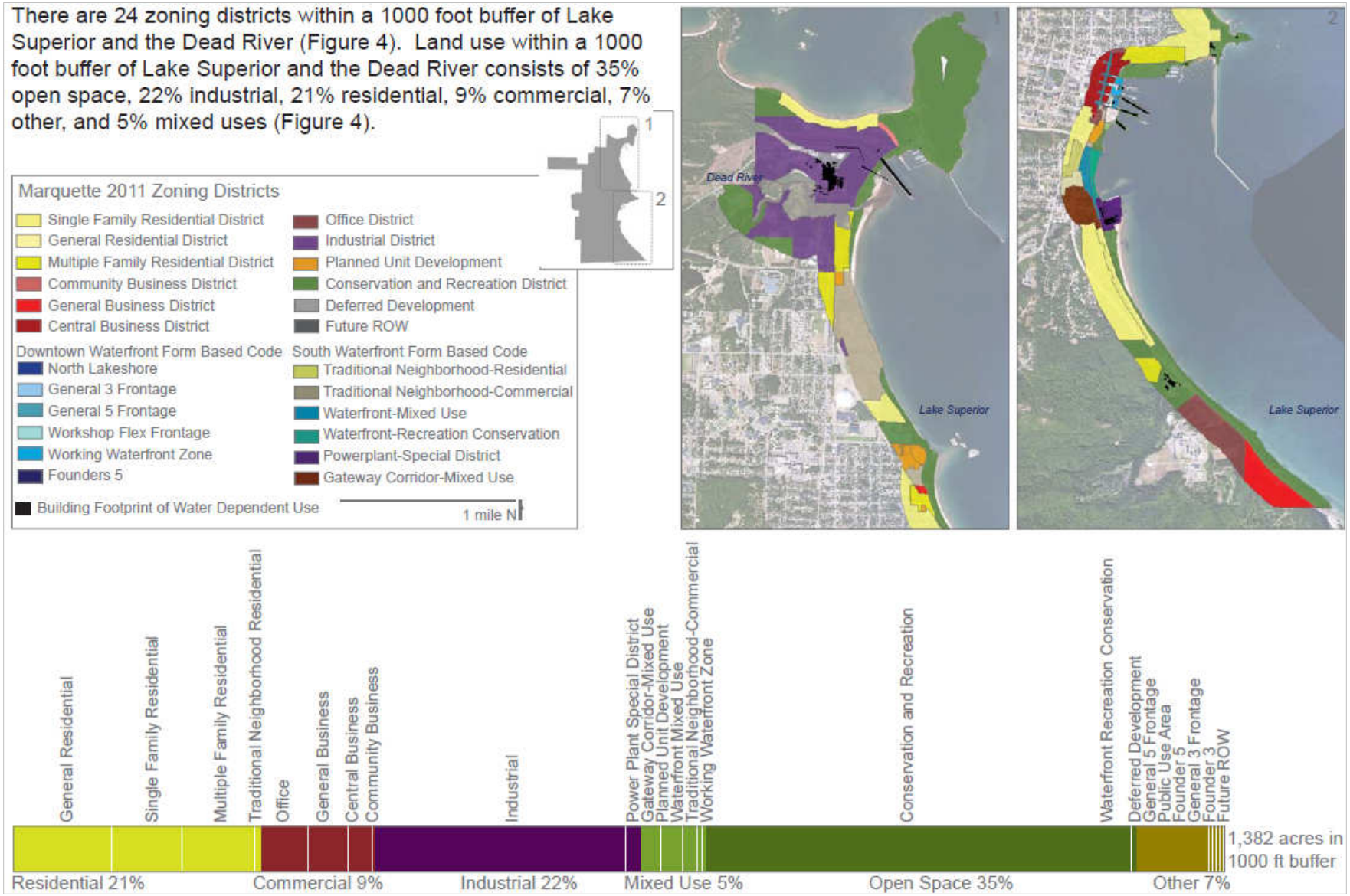


Figure 9.4: Map of Zoning and water-dependent uses within a 1000 foot buffer of waterbodies (top/left), and waterfront zoning by land area (bottom/right).



The following table is a listing of the intents, permitted uses, special uses of zoning districts, and form-based code sub-districts that accommodate water dependent uses and/or public access:

Table 9.1: Zoning and Form-Based Code Districts which Accommodate Water-Dependent Uses and/or Public Access

Zoning District	Intent of District	Principle Use	Conditional Use
Industrial	Intended to regulate the establishment of industrial uses in the city to prevent the deterioration of the environment to protect the desired qualities of adjoining districts and to exert a minimum nuisance on adjacent uses within this district	All General Business uses with the exception of residential and day care, Wholesaling operations, Warehousing and distributing, Light Manufacturing	Heavy Manufacturing, Major repair and maintenance operations, Bulk Storage
Conservation + Recreation	Intended to preserve the character of land in the city which have outstanding scenic and/or recreational qualities, to prevent development of land which has great ecological value or where there are natural hazards to development to preserve open areas for forestry, agriculture and recreation, and to control the construction of structures along the shoreline of Lake Superior	Agriculture, including forestry, Land, water, and wildlife conservation and/or education activities	Land intensive recreational uses, port facilities and docks excluding warehousing and outdoor storage of materials, goods, or products, Natural Resources Extraction operations, structures between the lake shoreline and pavement of the nearest public street or highway
Deferred Development	Intended to reserve large undeveloped areas of the city for future development by prohibiting unplanned, scattered development which would tend to divide these areas into smaller, more difficult to develop parcels	Agriculture, including forestry, Land, water, and wildlife conservation and/or education activities	

District	Intent of District Design	Permitted Uses in Sub-Districts	*as defined by the FBC:
Downtown Waterfront Form-Based Code (DWFBC)	Designed to foster infill redevelopment in a sustainable mixed-use pattern as part of a vibrant, diverse urban and working waterfront district; Intended to promote traditional urban form and a lively mix of uses, allowing for shop fronts, sidewalk cafes, and other commercial uses at the street level, with wide sidewalks and canopy shade trees, overlooked by upper story residences and offices, while maintaining a working waterfront; Intended to provide physical access and a sense of connection to Lake Superior in the historic downtown	DWFBC General 3, General 5, Working Waterfront Zone, Workshop Flex, Founders 5: Residential, Commerce, and Light Manufacturing* DWFBC North Lakeshore Frontages: Residential*	Light Industrial uses: Light Manufacturing, Waterfront Related Repair and Maintenance, Mooring and Docking of Boats, Winter Storage of Watercraft Between the Dates of October 1st and May 30th

District	Intent of District Design	Intent of Waterfront-Recreation Conservation Sub-District
South Marquette Waterfront Form-Based Code (SMWFBC)	Designed to foster sustainable infill redevelopment in a vibrant, mixed-use, pedestrian-friendly pattern that encourages diverse and compact development	Intended for the preservation of public access to the Lake Superior waterfront and to provide for recreation and conservation activities

PARCEL CLASSIFICATION

Figure 9.5: Parcel frontage (A) and area within 1000 foot buffer by water dependency classification (B)

Parcels that provide public access to the waterfront account for approximately 52% of frontage along Lake Superior and the Dead River (approximately 15 miles) and approximately 27% of the area (approximately 1,170 acres) within a 1000 foot buffer of these bodies of water. Parcels that have identified water dependent uses account for 10% of frontage and 1% of the area within a 1000 foot buffer of Lake Superior and the Dead River. Industries and utilities along the waterfront account for 1.5% and 11% of frontage and 7% and 11% of the area within a 1000 foot buffer of bodies of water, respectively (Figure 6). Figure 5 displays an inventory of identified water related uses along with classification of associated parcels of land as public access or water dependent, enhanced, or non-water dependent.

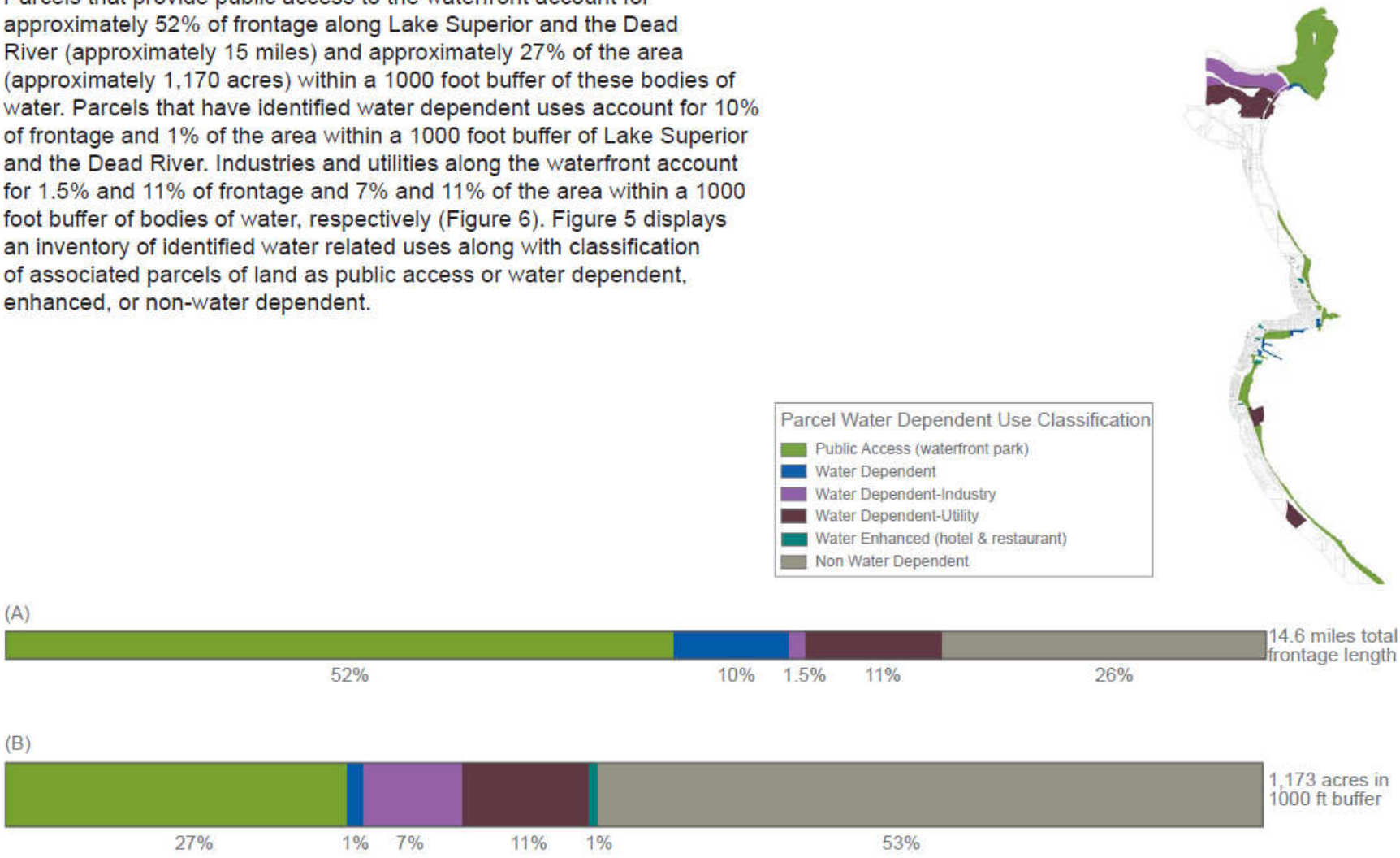
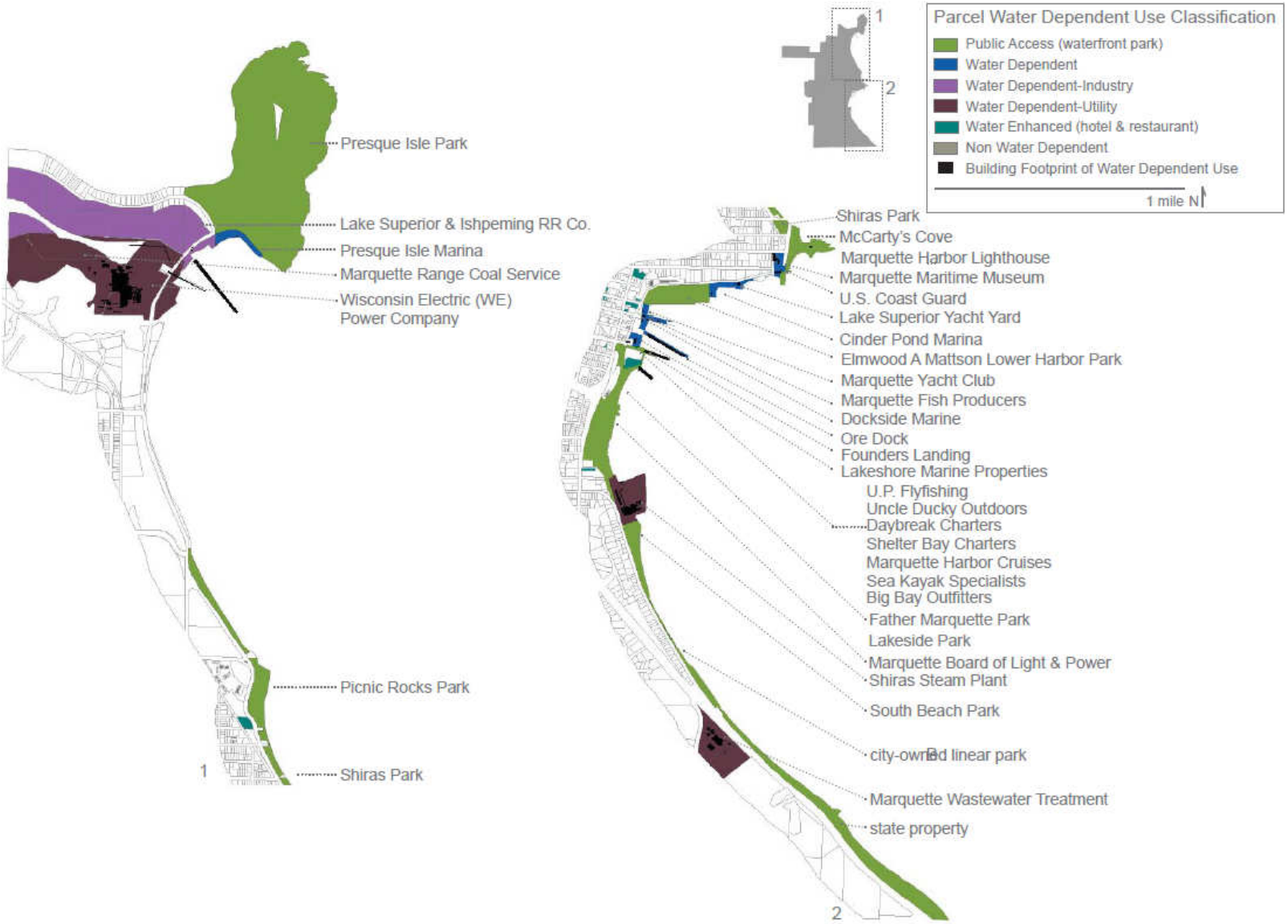


Figure 9.6: Classification of parcels within 1000 foot of water bodies by water dependency



There are a number of positive and negative and internal and external factors than influence a community's ability to maintain a robust working waterfront. The SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis below, created by the National Oceanic Atmospheric Administration (NOAA) Coastal Management Fellow Elizabeth Durfee in 2013, identifies examples of the challenges and opportunities associated with maintaining Marquette's waterfront as a place that provides public access, supports businesses and uses that depend on access to the water, and is well integrated within the community from a planning and physical perspective. A SWOT analysis is a strategic planning tool that identifies positive and negative, internal and external factors that influence an individual, business, organization, or place's ability to achieve an objective. Internal factors may include, for example, human, physical, or financial resources and past activities or programs. External factors may include future trends, the economy, or the physical environment.

Table 9.2: SWOT Analysis of Marquette Waterfront

STRENGTHS -Innovative and progressive planning, Waterfront Form Based Code Zoning Districts -Waterfront redevelopment and revitalization -Waterfront parks, Presque Isle Park -Public access to waterfront -Harbor and marina plans and studies -Waterfront industry in the north of the city -Waterfront Smart Growth workshop and technical assistance grant and workshop -Waterfront trails -2 major harbor areas -Infrequent dredging needed -The Lake Superior and Ishpeming Railroad still active -Tourism, tall ships	**WEAKNESSES** -Decline in commercial fishing since the 1940s -Loss of industry -Redevelopment/reuse of Ore Dock somewhat limited by State Bottomlands Agreement - will require public benefit
OPPORTUNITIES -Ore Dock redevelopment -Continue partnering with CZPM, Sea Grant, EPA, NOAA -Superior Watershed Partnership -Provide guidance on waterfront development for other communities -Protect existing success with continuous investment -Continue implementing harbor plans	**THREATS** -Aging/damaged infrastructure, loss of critical armor stone protection and loss of core store from timber cribbing -Residential development pressure along coast

HARBOR MASTER PLAN

Comprehensive waterfront planning was conducted in 2003 and resulted in the creation of a Harbor Master Plan as a "subplan" to the 2004 Community Master Plan (CMP). That Harbor Master Plan has been carried forward in this document as Appendix H. While ten years has passed since plan adoption, there are still many relevant recommendations contained in the Harbor Master Plan, and there is no comprehensive replacement for that plan available at this time. Changes that have occurred over the past decade are addressed in following portions of this chapter.



Past and Present Waterfront Uses and Public Concerns

As part of the process of developing the Harbor Master Plan in 2003, a consultant created a detailed inventory of existing harbor uses, and comprehensive lists of proposed improvements to both the Upper Harbor and Lower Harbor (called out as a "preferred plans" in the 2004 CMP). That inventory of "existing" waterfront/shoreline uses and lists of proposed improvements follows, with the itemized categories carried over from the 2004 CMP, and the primary funding source for improvements listed in parenthesis next to the category heading (public or private).

The inventory is supplemented by public input regarding waterfront activities and planning that was gathered through two public listening sessions held by City staff during June and July 2012. Comments/recommendations gathered in 2012 are shown in the lists below with the source identified in parentheses (*italicized*). They have been put into the most appropriate category identified in the 2003 inventory of existing harbor uses, to create a more complete picture of public concerns regarding our waterfront assets. Since there were several comments collected in 2012 that did not fit neatly into the 2003 inventory categories, a "miscellaneous" category was created for display of those comments. The 2012 comments/recommendation are also shown in Appendix A as a record of public input by date, in the format in which they were recorded, and categorized by the person/entity making the comments.

Also of importance, concerns for use of the Carp River and the Dead River (and its reservoir) in the City are included in the 2012 comments/recommendations, but were not included in the 2003 waterfront/harbor study.

Inventory of Waterfront Uses, and Proposed Improvements:

Upper Harbor
A. Presque Isle Marina (Public)



Figure 9.7: Upper Harbor Waterfront Uses, and Proposed Improvements

This public marina has a State and Federal designation as a harbor of refuge. The marina contains 97 slips open to the public, as well as a boat launch. Some areas of concern:

- Concerns over sedimentary rock on the break wall and East side of the peninsula. (*Presque Isle Park Advisory Committee*)
- Upgrades should be made to elevate Presque Isle into a "premium marina." (*Presque Isle Concerned Citizens*)
- There is a revised 5 year plan for improvement to fix structural problems, including dredging, boat launch parking lot and replacing falling piers. (*Harbor Advisory Committee*)

B. Merchandise Dock (Private)
Owned by Cliffs Natural Resources.

- Past ideas promoted use of the dock as a vendor or public promenade. (2004 CMP)

C. Remnant Pilings (Private)

There are no current uses for these pilings which formally supported docks. Accessible only from LS&I property and water.

D. Cliffs Natural Resources Ore Dock (Private)
Privately owned, this dock is maintained for active use, for iron ore transportation.

E. Kayak/Sailing Beach (Public)
This area serves as a launch site for recreational uses.

- Improve beach for kayak/small boat storage building combined with new restroom. (2004 CMP)
- Provide kayak/small boat storage building along with restroom. (2004 CMP)

F. Boat Launch/Travel Lift (Public)
The current launch is used by local programs and for recreation.

- YMCA paddle program explores the Lake Superior shoreline from the water, and utilizes various launch sites such as Middle Island Point. (*YMCA*)
- Hiawatha Water Trail emphasized that boat lockers should be included at launch locations. These lockers provide a place for people to secure their boat so they can utilize the local businesses etc. (*Hiawatha Water Trail*)
- ✓ Relocate launch next to Merchandise Dock. (2004 CMP)
- ✓ Incorporate travel lift and pull out as part of launch area. (2004 CMP)

G. Fish Cleaning (Public)

- Provide fish cleaning pavilion adjacent to boat launch. (2004 CMP)

H. Parking (Public)
Parking areas currently exist but are not clearly marked or well-defined. Citizen input suggests creating "user access" designated areas.

- Concerns regarding safely crossing Lakeshore Blvd. in N. Marquette to access the beach, particularly near the Hawley St. intersection. Suggested having some type of "user access" designated areas, since parking along the east side of the road has been largely eliminated. Other suggestions were to have signs on how to get to the beach, and to provide some kind of transportation options from the parking lots to the beaches. (*Negaunee Child Center*)
- Locate parking to accommodate beach, boat launch, and additional marina slips. (2004 CMP)
- Develop standards for parking lots that reflect a park-like setting. (2004 CMP)

I. Peter White Drive (Public)
The roadway extending around Presque Isle Park is used primarily in the summer by cars and bikes. In the winter the road closes and serves as a cross country and snowshoe trail around the park.

- Realign, north of Lakeshore Blvd., to better organize parking and create a park-like entrance experience for both Presque Isle Park and Marina. (2004 CMP)

J. Marina Services Facility (Public)
The existing building houses the Harbor Master and support services.

- The facility needs both functional and aesthetic updates. (2004 CMP)

K. Redevelopment (Private/Public partnership)

Currently this area is home to a few local businesses and cultural attractions.

- Community input suggests looking at patterns and development of "beach communities", which are dense neighborhoods along streets that border the waterfront. Marquette has the potential for some small scale housing. (*Landing Development Group*)
- Consider re-use of existing structures on City-owned property for an eco-lodge development, retail, and food/beverage uses. (2004 CMP)

L. Trail Connections (Public)
The waterfront currently contains a network of paved multi-use trails, accommodating both pedestrians, bikers, and other recreational transportation. The City seeks to maintain these trails and build upon them.

- Expressed desire to start a "Trail Town Program" as part of the National Scenic Trail/North Country Trail. (*North Country Trail Hikers*)
  * *This was implemented in late 2013, with a Trail Town designation*
- Creation of temporary sculptures along the bike path. (*Arts and Culture Committee*)
- Maintain recreational trail connections. (2004 CMP)

M. Vending Opportunities (Private)

- Encourage vending at key activity areas. (2004 CMP)

N. Design Character

- Develop guidelines that build upon the high quality wilderness architecture style established by existing structures. Guidelines would reinforce the vision to establish parameters for redevelopment. (2004 CMP)

Lower Harbor (see Figure 9.8 on following page)

A. Cinder Pond Marina (Public)
This 101-slip marina currently serves lower harbor with a boat launch, docking, fueling and maintenance support.

- The bulkhead is used for commercial craft such as, Coaster II, DNR Lake Char, and Marquette Harbor Cruises. Would like to see more commercial use at Cinder Pond. keep the marina maintained structurally. (*Harbor Advisory Committee*)
- Potential for a research vessel docked at Cinder Pond Marina bulkhead-perfect location for research needs. (*Michigan DNR*)
- Maintain current configuration/use (2004 CMP)
- Adjust transit to seasonal mix as additional slips are built within the harbor (2004 CMP)



Figure 9.8: Lower Harbor Waterfront Uses, and Proposed Improvements

B. Fish Dock (Private)
This area is set aside for future use and enjoyment by the residents of the city. Proposed development focuses on the continuation of its operation as waterfront access.

- The fish dock is privately owned and operated and all lease bottomlands. It is located behind Thill's Fish house. It has been in existence for 100 years and was originally a commercial fishing dock, which was purchased from the railroad. They get a lot of tourist traffic and point out a lot of local attractions to the tourists. They are glad the city is intent on keeping the waterfront publicly accessible. (*Fish Dock*)
- Encourage and establish private partnership opportunities. (2004 CMP)
- Expand retail uses and encourage vending opportunities. (2004 CMP)
- Encourage consistent architecture. (2004 CMP)
- Provide protective breakwater at the end of the dock. (2004 CMP)
- Expand dockage along existing piles. (2004 CMP)
- Reuse or salvage remaining piles. (2004 CMP)
- Provide public promenade and a protective break wall at the end of the dock. (2004 CMP)

C. Association Dock (Private)
This privately owned dock follows similar suggestions to the adjacent fish dock.

- Establish private partnership opportunities. (2004 CMP)
- Provide public promenade remaining piles. (2004 CMP)
- Provide protective breakwater at the end of the dock. (2004 CMP)
- Expand dockage along existing piles. (2004 CMP)
- Reuse remaining piles. (2004 CMP)
- Salvage remaining piles. (2004 CMP)

D. Ore Dock (Public/Private Partnership)
The city-owned ore dock acts as a symbol of Marquette's distinct shipping history. The dock sits on State of Michigan bottom lands and juts into the Lower Harbor bay. As a defining feature of the City, there is broad support to retain the dock as a historically significant feature.

- Night lighting installations. (*Arts and Culture Committee*)
- Transform the dock into an ecological learning center and botanical garden. (*resident*)
- Encourage adaptive reuse for mixed use development and public access along perimeter (2004 CMP)
- Provide public destination at terminus. (2004 CMP)
- Provide protective breakwater at the end of the dock. (2004 CMP)
- Maintain architectural integrity of ore dock. (2004 CMP)
- Limit activity on top of dock to historic interpretation. (2004 CMP)
- Provide sensitivity designed night lighting. (2004 CMP)
- Accommodate parallel boat docking. (2004 CMP)

E. Hotel/Marina (Private)
Recently completed in 2012, the Hampton Inn hotel sits on the waterfront directly south of Mattson Park and the Ore Dock.

- Configure breakwater to protect basin from wave action within outer breakwater. (2004 CMP)
- Maitain alignment and reuse piles where possible. (2004 CMP)
- Provide public promenades with lighting, benches and interpretive and terminus features. (2004 CMP)
- Provide visual access of Ripley's Rocks but limit physical access by separation. (2004 CMP)
- Accommodate large vessels along southern breakwater. (2004 CMP)

F. Harbor Promenade (Public)
Currently stretching around the hotel, the promenade links both the trail networks at Mattson Park with the trails to South Marquette.

- Create a range of amenities such as lighting, seating and interpretative features along boardwalk. (2004 CMP)
- Provide a continuous promenade along the water's edge that links to trails to the north and south. (2004 CMP)
- Maintain public access to the outer breakwater. (2004 CMP)
- Enhance the bulkhead/promenade from Mattson Park to the proposed Hotel and Conference Center. (2004 CMP)

G. Linkages to Downtown (Public)
The Lower Harbor and Mattson Park provide key links between the downtown district, Lake Superior, and public features found on/adjacent to the lake. Structures such as the Firemen's Memorial Bell Tower, located at the entrance to Mattson Park, emphasize the pathways between the two areas while simultaneously connecting them.

- Provide visual and physical linkage between downtown and the waterfront emphasizing promenades that project into the harbor. (2004 CMP)

H. Trail Connections
Lower Harbor sits on the network of trails that stretch from the southern city limits to Presque Isle Park. Directly accessible by non-motorized uses, Mattson Park and the water front connect to the North Country and National Scenic Trails plus the Iron Heritage Trail and Multi-Use City Path.

- Provide aesthetic fencing adjacent to the Coast Guard. (2004 CMP)
- Provide trail connections north of Cinder Pond Marina, and to the beach trail south of the proposed Hotel/Convention Center. (2004 CMP)

I. Theater/Marina Services (Private)
The theater is located in a former boathouse near Cinder Pond Marina and currently serves the community during the summer months. Marina services are located adjacent to the theater.

- Expand seasonal marina services. (2004 CMP)
- Maintain current location of seasonal theater. (2004 CMP)

J. Fish Cleaning Facility (Private)
Fish cleaning facilities exist bordering the Cinder Pond Marina and are open to public use. (2004 CMP)

K. Cruiseship Docking (Public)
Current harbor conditions allow for the mooring of large boats and small ships, but even small ships (>150' length) rarely use this facility.

- Improve bulkhead at Mattson Park to accommodate cruise ships. (2004 CMP)

L. Community Sailing Program (Private)
This privately owned program serves Marquette Area as a key recreation opportunity.

- This is private property, but by zoning and code they cannot indicate that it is private property. (*Marquette Yacht Club*)
- Reconfigure dockage for community sailing programs. (2004 CMP)

M. Amphitheater (Public)

- Locate amphitheater at the Northwest corner of the harbor. (2004 CMP)
- Provide access to floating platform and community sailing dockage. (2004 CMP)

N. Water Taxi (Private)

- Provide seasonal service between lower and upper harbors. (2004 CMP)
- Provide dockage and wayfinding signage for water taxi. (2004 CMP)

O. Canoe/Kayak Beach and Storage Facility (Public)
Current South Beach conditions allow for put-in and take-out for kayaks, canoes and small boats.

- UP Community Rowing Club boats are stored outside in the summer and the club would like to find inside storage in the future as the boats are exposed to weather and possibly other types of damage. This type of storage is very expensive. The group needs calm water to row, and typically rows into the lower harbor or to the Welcome Center. (*UP Community Rowing Club*)
- Provide put-in/take-out beach at the South Railyard development. (2004 CMP)
- Incorporate kayak/canoe/small boat storage into the public pavilion proposed for the South Railyard development. (2004 CMP)

P. Vending Opportunities (Private)

- Encourage private vending at key activity locations (2004 CMP)

The following comments were gathered from the two public listening sessions held by City staff during June and July 2012 at the Presque Isle Park pavilion.

Miscellaneous Waterfront Uses, and Proposed Improvements:

- Stormwater: The city needs to protect the stormwater system because of its potential affects on the lakeshore. Encouragement of low impact use development and awareness of environmental impact on the shoreline must be emphasized in future planning. The city should try to work with its citizens on how to minimize stormwater discharge. The stormwater that goes into the lake should be clearly marked, along with more education regarding stormwater runoff. (*resident Liz C.*)
- Mooring Field: Work obtaining mooring anchors that will be required in the future to utilize the mooring field. This constitutes regulation of the area, with the establishment of rates and what type of moorings to be used. (*Harbor Advisory Committee*)
- Wastewater: There have been ongoing attempts to secure funding through a grant to improve the Lakeview Arena storm water outlet area. Also, there is current cooperation with the Superior Watershed Partnership to improve storm water runoff. (*Marquette Area Wastewater Treatment Advisory Board*)
- Swimming: There is community desire of adding a lifeguard stand at McCarty's cove and south beach, along with a gate at Presque Isle. (Waterfront Safety Task Force)
- Pipeline and Shipping Systems: Monitor shipping lanes and leakage out of pipeline systems. (*WE Energies*)
- Historical water level changes, and high and low lake levels must be considered with any waterfront development, as water quality is affected by elevation. More than just Lake Superior must be considered, but the Tourist Park waterfront, the Carp River, and the Dead River too. Large lakefront property owners must be informed regarding any waterfront planning. (*Planning Commission*)

- Increased consideration of people with disabilities must be taken in the planning of usage of the waterfront. Innovative and new ideas to promote universal access should be encouraged, not solely adherence to minimum standards. (*Marquette Access Group*)
- Remnant wooden pilings at Founders Landing: 3 phase development proposal to deck the pilings, create a break wall, and create a fully accessible fishing pier. (*Landing Development Group*). Agree with the use of "Pilings Performance Bond" to do something with the pilings, or remove them. Incorporate into Brownfield plan. (*Harbor Advisory Committee*)
- Develop a parking structure along the lakeshore; team with the Brownfield Authority to utilize the area around the south portion of the north part of Founders Landing, and the north point of Mattson Park. (*Downtown Development Authority)*
- There is a need for interpretive signs along the lake. The signs need to have good general information regarding the lake and the shoreline. (*Karen B.*)
- Marquette is known for the fact that you can surf and snowboard on the same day. It was suggested that getting information out to the surfing community would be beneficial to the community in many ways. (*Marquette Surfers*)
- The toxicity of Cliffs Dow and West Side Lakeshore Blvd qualify it as a possible future Brownfield site. (*Brownfield Redevelopment Authority*)
- Restroom improvements at Mattson Park, McCarty's Cove, beaches and playgrounds are being planned. (*Parks & Rec. Advisory Board*)
- Would like to see more hands-on projects utilizing outdoor assets; concern about the long term health of local ecosystems and development impacts on natural bird habitats. Would like to see enhancements brought in that would encourage even more wildlife to the area. Moosewood Nature Center is also concerned about the two invasive plant species that are taking over the shoreline. They are also concerned about the shoreline of the river to Tourist Park. They suggested the city should contact the center in the fall when related conferences are attended or scheduled. (*Moosewood Nature Center*)
- Provide universally-accessible fishing pier. (*Ken C., disabled veteran*)
- Would like to integrate Arts & Culture into the public waterfront. Suggestions included temporary sculptures along bike path and light installations on the ore dock. (*Arts and Culture Committee*)

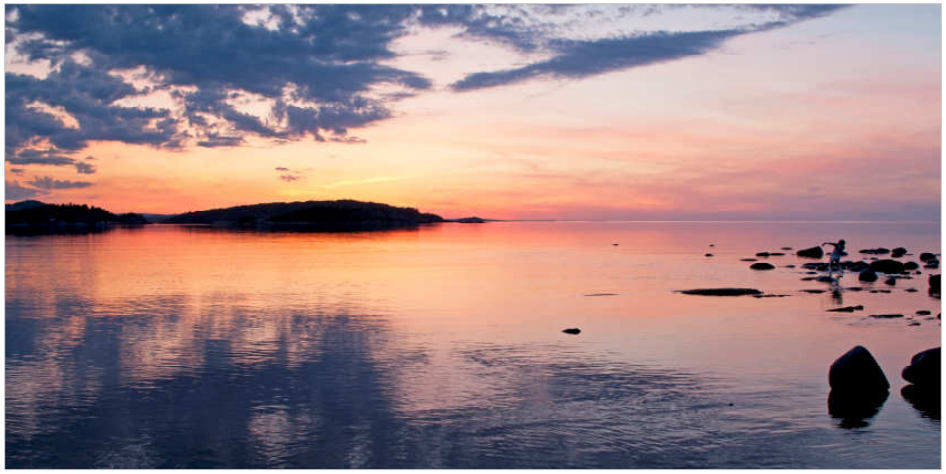


Photo by Denny Beck

RECOMMENDATIONS

Implement Smart Growth

Smart Growth Planning fosters sustainable land use and development. The National Oceanic and Atmospheric Administration's (NOAA) Waterfront Smart Growth planning principles should help guide future development in order to protect water resources, support mixed-used and diverse waterfront land uses, and promote visual and physical access to the waterfront. Table 9.3 below displays the 10 principles of Smart Growth, and *Coastal and Waterfront Elements* which augment the existing smart growth principles to reflect the specific challenges and opportunities characterizing the waterfront, be it on a coast, a river, or a lake. These elements provide guidance for communities to grow in ways that are compatible with their natural assets, creating high-quality places for residents, visitors, and businesses. These principles provide a framework for making growth and development decisions that yield better economic, environmental, community, and public health results.

Table 9.3: Principles of Smart Growth, and Coastal and Waterfront Elements

Smart Growth Principles	Smart Growth Coastal and Waterfront Elements
1. Mix land uses	*1. Mix land uses, including water-dependent uses*
2. Take advantage of compact building design	*2. Take advantage of compact community design that enhances, preserves, and provides access to waterfront resources*
3. Create a range of housing opportunities and choices	*3. Provide a range of housing opportunities and choices to meet the needs of both seasonal and permanent residents*
4. Create walkable communities	*4. Create walkable communities with physical and visual access to and along the waterfront for public use*
5. Foster distinctive, attractive communities with a strong sense of place	*5. Foster distinctive, attractive communities with a strong sense of place that capitalizes on the waterfront's heritage*
6. Preserve open space, farmland, natural beauty, and critical environmental areas	*6. Preserve open space, farmland, natural beauty, and the critical environmental areas that characterize and support coastal and waterfront communities*
7. Strengthen and direct development toward existing communities	*7. Strengthen and direct development toward existing communities and encourage waterfront revitalization*
8. Provide a variety of transportation options	*8. Provide a variety of land- and water-based transportation options*
9. Make development decisions predictable, fair, and cost effective	*9. Make development decisions predictable, fair, and cost effective through consistent policies and coordinated permitting processes*
10. Encourage community and stakeholder collaboration in development decisions	*10. Encourage community and stakeholder collaboration in development decisions, ensuring that public interests in and rights of access to the waterfront and coastal waters are upheld*

Tools, Objectives, and Best Practices for Maintaining Working Waterfronts and Sustaining Resilient Coastal Communities:

Establish Innovative Zoning Districts

Where conventional, use-based zoning is not conducive to meeting the community vision for a walkable, well connected waterfront and downtown, it may be necessary to amend a zoning ordinance. Establishing/expanding form-based code districts that regulate structure, design, and form over land use provides greater flexibility with regard to creating a pedestrian-oriented, mixed use waterfront district that protect view-sheds, waterfront uses, public access, and water resources.

Regulate Land Use along Waterfront Roads

A road can be an effective divider between the public and private realm along a waterfront. Permitting private development on the inland side and public use on the water side of a road serves to maintain viewsheds and retain access to the waterfront.

Engage Community in Planning and Visioning

Engaging in planning exercises in advance removes some of the politics from the development process and allows for a conversation more focused on economic development tools, brownfield abatement credits, etc., rather than whether a project is appropriate or not. Engaging the community and getting citizens and professionals together can lead to an effective waterfront visioning and strategic planning process.

Utilize Placemaking

Capitalizing on the economic value of "placemaking" - planning, designing and managing public spaces to meet the needs and desires of residents and visitors and establish a common vision - can increase both private development and public access to the waterfront as well as create a more walkable downtown that embraces water resources.

Coast Guard Light House Reserve

The City should continue to pursue transfer of this property from the federal government to municipal control, and provide ongoing environmental assessments of the property to reveal no significant contamination. City ownership will ensure public access to the property, and working with partners such as the Marquette Maritime Museum and the Regional History Center will allow the City to preserve an important historical landmark that is widely recognized as a defining feature of the City's waterfront. This property will also provide opportunity for expansion of the City's water treatment facilities, if that should become necessary in the future.



Photo by Davey Rockwood



Health, Safety, and General Welfare

In this chapter of the Community Master Plan we are primarily concerned with the physical, economic, and social environments, which are realms in which City government has direct and indirect influence. Health epidemics, including "yellow fever" and influenza led to the systematic study of urban development and the creation of plans, policies, and ordinances to deal with the health problems of inadequate sanitation and overcrowding in large American cities. Six generations after the landmark 1894 sanitary sewer studies began in New York City, the diseases common to that era have largely been eliminated, but other diseases have arisen to the level of epidemics across the United States. Diabetes and obesity, known as "comfort diseases" and "lifestyle diseases," have increased so quickly and broadly across the U.S. that they are commonly referred to as epidemics by public health officials. The causes of these diseases include problems that past urban policies have helped to create, and this chapter focuses on urban policies that may alleviate or eliminate those problems.

So as not to duplicate the work of our County Health Department and other health and public safety agencies, the subject matter of this chapter will be mainly limited to the built environment and access to nutritious food, two key issues that are heavily influenced by urban development policies. But first, a brief examination of health, the different drivers of health, disease, and the elements of what makes a healthy community.

Health is...?

The way we define health influences the way we talk and think about our health or community health. Health for an individual may be referred to their lack of illness, weight in proportion to height, having regular doctor check-ups, regularly eating a nutritious diet, being happy, getting plenty exercise, among many other possibilities. Health is most often thought of as just physical, but mental health status is just as important. Good mental health involves finding harmless/helpful ways to express emotions, decreasing stress in your life, building relationships, and being engaged with your community. The word health can also be used in terms not related to the body and

mind, such as a healthy economy. For instance, if we tell our friends we are going to "Get Healthy", this can mean many things. Having a shared understanding of health provides a foundation that we can use in conversations to make decisions every day regarding healthy choices.

Because community and social factors drive health outcomes and health equity, it is important to ask, "what is a healthy community?" There is no definitive answer to this question, but the framework shown in Figure 10.1 below provides one set of answers to this question. The framework was developed by the California Health in All Policies Task Force.

Figure 10.1: Healthy Community Framework



California Health in All Policies Task Force. (2010, December 3). Health in All Policies Task Force Report to the Strategic Growth Council. Retrieved from: http://sgc.ca.gov/hiap/docs/publications/HiAP_Task_Force_Report.pdf. Used with permission.

What determines health?

Many factors influence our health and quality of life. The context of our lives influences our health outcomes. Understanding these influences allows us to expand our dialogue on health and identify barriers to health improvement.

Our gender and age play a role in health outcomes, where at different ages men and women may have different diseases. Individual behaviors like smoking and drug use can be changed. Our social environments, such as income and education also play a role in our overall health outcomes. For example, higher income is associated with better health, and much evidence shows having a higher education often contributes to better health and higher incomes. So, investing in education should help improve our community's health over time.

Our physical environment - where we live, work, and play - also influences our health to a large degree, and this factor will be the main focus of further discussion. Living in a community in which walking is safe, and having access to clean water and air, and convenient access to nutritious food provides benefits to our overall health. Working in a healthy environment, such as a place with no-smoking policies and being located in an area where walking outdoors is comfortable, also has a positive influence on our health. Having a community space for recreation helps adults cope with their stress and provides children with needed play opportunities that assist in the development of good physical and mental health.

The Social Determinants of Health

According to the 2013 report *Health in All Policies: A Guide for State and Local Governments,* "health is influenced by the interaction of many factors including:

- genetics, biology, individual behavior;
- access and barriers to health care; and
- social, economic, service, and physical (natural and built) environments."

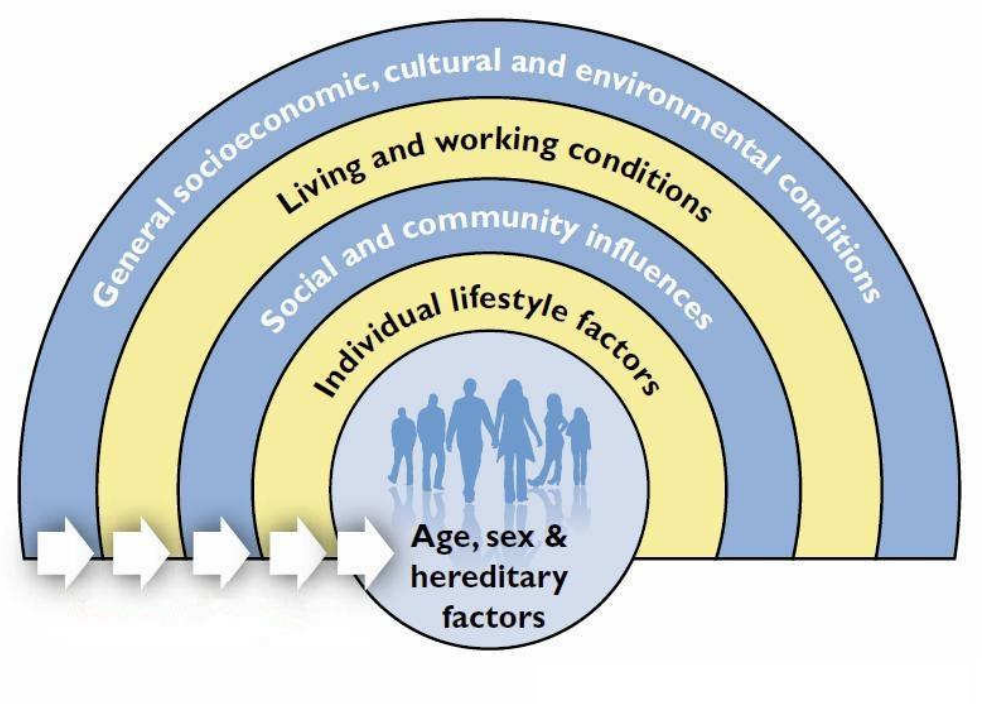
"Determinants of health" are the things that make people healthy and not healthy. Some of these elements we can change easier than others. All of them bear examination to understand what influences our health.

The 2013 *Health in All Policies* report also states that while clinical care is vitally important, only a small portion (15–20%) of overall health and longevity can be attributed to clinical care. The report states that social, physical, and economic environments and conditions, collectively referred to as the *social determinants of health*, "have a far greater impact on how long and how well people live than medical care."[1] The *social determinants of health* include the natural and built environment, as well as food production and distribution. The interaction between health, social factors, and environmental factors is complex and beyond the scope of this document, but there is much information available on this topic. The "rainbow model" shown on p. 10-4 is a

[1] California Health in All Policies Task Force. (Dec. 2010). Health in All Policies Task Force Report to the Strategic Growth Council. Retrieved from: http://sgc.ca.gov/hiap/docs/publications/HiAP_Task_Force_Report.pdf

widely-recognized model that shows the layers of influence on an individual's potential for health, from a global perspective to local circumstances, and ultimately with the individual's age, sex, and "constitutional"/hereditary factors.

Figure 10.2 The Social Determinants of Health Model (source: Dahlgren and Whitehead, 1991)



Ultimately our decisions and biology decide how healthy we are. But decisions aren't made in a vacuum. As this model shows, the choices we make are affected by social networks like our friends, family and peers (e.g. if your friends exercise you're more likely to or having someone to talk to helps when you're stressed) or living and working conditions (e.g. work deadlines cause stress, and a leaking roof at home may add to anxiety and exacerbate disease). In general, widespread conditions like economic prosperity or recession, cultural changes, drought or flooding, and war can also affect our disposition and are likely to influence out our physical, mental, or community health at least indirectly.

Obesity: An Example of Need for including Health in Plans and Policies

More than one-third of adults and almost one-fifth of children in the United States are obese, where obesity rates have more than doubled for adults and tripled for children since 1980. 67 percent of Michigan adults are overweight or obese according to the Centers for Disease Control. Obesity increases the risk of many health conditions including coronary heart disease, stroke, high blood pressure, Type 2 diabetes, some cancers, osteoarthritis, and infertility. It may also shorten population life expectancies for future generations. The causes of the obesity epidemic are complex, including the food, physical activity, social, and economic environments that shape individuals' opportunities to make healthy food and beverage choices and incorporate exercise into daily routines.

The increased prevalence of sedentary lifestyles, has contributed to rising obesity rates. This is related to change in patterns of land use and transportation, especially with increased distances from homes to school and work during the past several decades, as well as social and cultural changes. An increased consumption of food and beverages with high caloric density and little nutritional value has proliferated with "fast food" options and processed convenience foods, increased pressures on working parents, intensive marketing, and federal subsidies for commodity products such as corn and soy, have all had effects on the rising obesity rates in the U.S.

Reducing the prevalence of obesity and chronic disease will require that public officials address people's environments to the extent of their influence, which will require working across multiple sectors. Transportation, planning, agriculture, labor, economic development, education, entertainment, and other partners will all need to be involved in order to advance a comprehensive approach to obesity and chronic disease prevention. It will also require exploring the links between these sectors and environmental sustainability, as well as addressing inequities in how communities are impacted.

Health and the Economy

The population's health impacts the economy in the United States in multiple ways. Good health allows increased workforce participation and productivity, while illness and injury negatively impact the productivity not only of the individual, but also of family members who provide care for their loved ones. Labor time lost due to health reasons represents $260 billion per year in lost economic output. For example, full-time workers in the United States who are overweight or obese and have chronic health conditions miss an estimated 450 million additional days of work each year compared with healthy workers, resulting in an estimated annual cost of more than $153 billion in lost productivity.

Nationally, the rising costs of health care have been sapping the government's ability to invest in other critical areas like education, renewable energy, or deficit reduction. Of the roughly $2 trillion spent on health care each year, 75% is attributed to chronic conditions, and nearly 10% of all national medical costs are obesity-related. Cardiovascular disease alone costs society nearly $400 billion each year, and it is estimated that an excess of $180 billion is spent annually to treat uncomplicated diabetes and hypertension. About 26 million US citizens - nearly 10% of the population - is affected by diabetes.

Health and Sustainability

Environmental sustainability is inextricably linked to health and equity, and has an important place in policy development. Global and localized environmental events and trends (e.g., extreme cold/heat events, tornadoes, flooding) not only directly impact health, but also threaten the supporting systems on which life depends—air, food, shelter, and water, suggest that environmental sustainability must itself be a key health goal. Luckily, many strategies to address health also address environmental challenges.

THE BUILT ENVIRONMENT

The built environment is the human-made space in which people live, work, and recreate on a daily basis. City centers deteriorated in the post-WW II decades as car-dependent suburbs sprung up on the outskirts of towns and highways made driving to ex-urban rural areas relatively quick and easy. Driving to work, shopping, schools, and just about every other destination became a way of life for many people living outside of urban areas, most of whom made commuting by car one of their largest investments of money and free time. Transit systems collapsed. The design and location of commercial and public spaces changed to more auto-oriented forms, and soon sidewalks were considered unnecessary expenses (luxuries) in residential development.

A diminished state of community health has followed, most obvious in the obesity and diabetes epidemics, in large measure a result of the over-dependence on cars and sedentary lifestyles that are facilitated by motorized transportation and further degraded by nutritionally poor diets that are common to our modern culture.

Several U.S. health studies in the past decade have recommended improvements in the built environment to expand opportunities for walking and biking to combat health problems linked to sedentary lifestyles. In a June 2009 article in *PEDIATRICS*, the American Academy of Pediatrics recommended that "State and local governments should examine their planning and zoning efforts to ensure that children's ability to walk, play, and get to school safely are a top priority."[2] The Trust for America's Health specifically recommended that local governments dedicate more funding for sidewalks in an August 2006 study.[3] In a 2012 report brief, the Institute of Medicine (health arm of the National Academy of Sciences) stated that "Communities, transportation officials, community planners, health professionals, and the government at the local, state, and national levels must prioritize promotion of physical activity by substantially increasing public access to places that allow such activity."[4]

The City of Marquette has been proactive in promoting walkability as a top priority in the 2004 Community Master Plan, creating a sidewalk maintenance fund, and extending the paved multi-use path system in recent years. Marquette has been developing multi-use paths since Holly Greer led the effort to create the path along the north lakeshore in the mid-1970s. We now are is seeing the development of trailhead amenities at the Marquette Commons that help link the downtown and many miles of paved paths to the extensive network of unpaved trails north and south of the city. The Downtown Development Authority has been a major force in focusing ongoing urban development in and around the downtown core, and more recently in the N. Third Street corridor. Marquette has a well-connected street grid, beautiful historic architecture, and enough

[2] Tester, June M. (2009) The Built Environment: Designing Communities to promote Physical Activity in Children. Pediatrics, 123, 1591-1598.

[3] Levi, Jeffery, Segal, Laura, and Juliano, Chrissie. (2006) F as in Fat: How Obesity Policies are Failing in America. Trust for America's Health Issue Report. Washington D.C.: Trust for America's Health.

[4] Institute of Medicine. (2012) Accelerating Progress in Obesity Prevention-Solving the Weight of the Nation. Report Brief; May 2012.

dense urban development to encourage and sustain further investment in its downtown and other urban districts. It is important for community health that these circumstances are maintained and even improved upon through codes and policies. One way the City will continually improve its built environment is by adhering to its Complete Streets Policy, and by taking advantage of Safe Routes to School (SRTS) grant funding, or at least by prioritizing safe, non-motorized access to public schools.

Complete Streets Policy

The Marquette City Commission in May 2011 adopted a resolution supporting Complete Streets and Guiding Principles, which is now City policy, in order to progressively address mobility and access in public street development going forward. The policy is duplicated in Appendix F, and is a significant policy for improving the built environment over time. Complete Streets are discussed in more detail beginning on p.6-8 of this document.

Many negative impacts to the quality and form of the built environment (as well as to air and water quality), have materialized as cities have become more oriented to accommodate cars. And the mobility of those who cannot/do not drive or own a car becomes significantly diminished when streets and other public space is only designed for automobiles. The ascendance of the automobile and the consequent shift of urban development and settlement patterns in the United States since World War II, from dense city neighborhoods to dispersed suburban subdivisions, have made walking and bicycling much less practical for travel purposes. But walking and bicycling remain a viable means of travel for work, school, and other trips for many people.

Safe, connected, and continuous facilities for bicycling and walking are vital to encourage and support travel by foot or by bicycle, and also help to promote transit use. The acknowledged health benefits of walking and bicycling for transportation include:

- Increased exercise from walking or biking often leads to health improvement;
- Bicycling and walking are environmentally sustainable ways to travel;
- Bicycling and walking are inexpensive alternatives to automobile travel;
- Reductions in automobile traffic leads to improved quality of life for individuals and community;
- Active transportation provides more opportunities for personal interaction with others.



A Bothwell Middle School student walks home from classes on newly-installed sidewalks, in spring of 2013.

Safe Routes to School (SR2S)

SR2S is a federal program that evolved from an international movement, to make it safe for children to walk and bicycle to school. When routes are safe, walking and biking to and from school is an easy way to get the regular physical activity children need

for good health, and if routes are safe for kids they will serve almost everyone well. SR2S projects also help reduce traffic congestion and air pollution near schools. Michigan's Safe Routes to School program is managed by the Michigan Department of Transportation (MDOT), with training, logistical, administrative, and technical support from the Michigan Fitness Foundation. The City of Marquette has had one successfully implemented SR2S project to date, which provided sidewalks for access to Bothwell Middle School along Mesnard St. and a segment of Altamont Street.

The goal of Safe Routes to School is the development of a school-based plan that will increase the safety and number of students walking and biking to school. Federal funding for Safe Routes to School was re-authorized in 2012 as part of the surface transportation bill (MAP-21) and MDOT has access to funds to help communities implement infrastructure improvements and non-infrastructure activities to encourage and enable students to safely walk and bike to school. Improvements can extend to 2 miles from K-8 schools, and may include traffic calming, lighting, bike parking, street, sidewalk, and multi-use path improvements.

COMMUNITY FOOD SYSTEMS

The strength of the relationship between local government and the local food system is an indicator of a community's resiliency to vulnerabilities. Incorporating food systems planning into local government decision making indicates an investment in public health and the local economy. It is essential for governments to evaluate existing policies and take the necessary measures to grow local food systems.

The core of the food system is food itself. Food is essential, we need to eat to survive, and beyond survival food plays an important role in our quality of life. The nutritional content of food consumed directly impacts health, as does the quantity of food consumed. For example, during 2009 in the State of Michigan, only 23% of residents reported they eat five servings of fruits or vegetables daily, and this level of adequate consumption was the same as the 1996 rate and is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes (Meter, 2013).



Access to healthy food is vital to creating healthy families and communities. The availability of healthy food in any given area is dependent on a variety of factors, but having a place to purchase healthy food within one mile of your residence is a critical factor. In an urban area, if at least 500 people and/or at least 33 percent of the census tract's population reside more than one mile from a supermarket or large grocery store the U.S. Department of Agriculture defines it as a "low-access community" or "food desert." Even when healthy food is available in a given area, other factors such as personal resources may be a barrier to access.

The economic impact of food systems is widespread and vital. Revenue from the sale of food grown locally, put into the pockets of farmers, is likely to be reinvested largely in local communities. This "local dollars staying local" practice is a big win for the local economy. A strong local food system equates to new job opportunities not just for food producers, but also processors, distributors, retail, and entrepreneurs. On the other side of the equation, the increasing costs of health care - and increasingly health care is related to poor nutrition - directly impacts the household budgets. On an aggregate scale that outflow of household income directly impacts our local economy.

A strong local food system reduces the vulnerabilities of the current conventional food system and provides local resilience. A glitch in the conventional supply chain could result in an abrupt local food shortage. Our geographic location and climate do present challenges, but season-extension and controlled environment agriculture methods - including greenhouse/hoophouses - do provide options for some year-round agricultural production in our region. The long-distance transport of food, especially winter transportation, may be the area with the greatest potential for efficiency and resiliency improvements by strengthening local/regional food systems.

Government Policy

The State and Federal governments administer vital programs such as SNAP (food stamps) that have a significant impact locally. In the Central Upper Peninsula, over 50,000 residents earn less than 185% of the federal poverty guidelines, qualifying them for SNAP benefits. This is more than a quarter of the Central U.P. population, which indicates the impact the SNAP program may have on creating healthy food access for local residents and communities.

The roles of local government in food system support should be, at a minimum:
1) Crafting and/or amending guiding and regulatory documents so the community can support the strengthening of the local food system;
2) Evaluating policies and regulations for obstacles facing our local food system;
3) Collaboration with public, private, and nonprofit entities to preserve and protect agricultural and environmental resources

Addressing the importance of local food supply in this Master Plan is an important indicator of municipal government support and addresses the first item above. Establishing goals such as: "Develop policies/ordinances that could allow the interim use of public land for gardens, agricultural practices, or to be landscaped with edible vegetation" may be ideal for a guiding document such as this one, which broadly addresses community agriculture. Setting such goals provides the support to begin an evaluation of policies and regulations (ordinances) for obstacles to implementation, and is itself a policy approach to working through obstacles facing our local food system. A more specific, measurable goal for a policy document may be "1 community garden per 1,000 residents." That type of policy is beyond the broader scope of this document.

Health in All Policies

The relatively new "Health in All Policies" approach to public health is a response to a variety of complex and often inextricably linked problems such as the chronic illness epidemic, growing inequality and health inequities, rising healthcare costs, an aging

population, climate change and related threats to our natural resources, and the lack of efficient strategies for achieving governmental goals with shrinking resources. Addressing these problems requires innovative solutions, a new policy paradigm, and structures that break down the "silo" nature of government agencies and departments to advance trans-disciplinary thinking. *Health in All Policies* provides such an approach.

Local governments are challenged by declining revenues and shrinking budgets while also facing increasingly complex problems. *Health in All Policies* brings together partners from many sectors to recognize the links between health and other issue and policy areas, break down silos, and build new partnerships to promote health and equity and increase government efficiency. Within a government unit, collaboration across departments and commissions can promote efficiency by identifying issues being addressed by multiple departments and commissions, and fostering discussion of how these entities can share resources and reduce redundancies, thus potentially decreasing costs and improving performance and outcomes.



There are a wide range of activities that can be used to promote consideration of health in public decision-making. These activities can be seen as falling along a spectrum, ranging from one-time opportunities for stakeholder input to activities that fully embed health considerations into all aspects of government decision-making. Where an activity falls on this spectrum will depend on how much the activity incorporates the five key elements described below. Organizers of initiatives will choose activities depending on capacity, resources, and support from decision-makers, and they may engage in a variety of different activities at the same time or over time. These activities may include providing input on documents or rules, sharing data or new data metrics, criteria for plans and project RFPs, conferences or trainings, and collaborative decision-making.

Five key elements of *Health in All Policies* have emerged as vital to the success of this work:

1. *Promote health, equity, and sustainability*. Health in All Policies promotes uses two avenues: (1) incorporating health, equity, and sustainability into specific policies, programs, and processes, and (2) embedding health, equity, and sustainability considerations into government decision-making processes so that healthy public policy becomes the normal way of doing business.

2. *Support inter-entity collaboration*. Government units that are not typically considered as health agencies play a major role in shaping the economic, physical, social, and service environments in which people live, and therefore have an important role to play in promoting health and equity. This collaborative

approach focuses on deep, ongoing collaboration, rather than taking a superficial or one-off approach.

3. *Benefit multiple partners, building upon the idea of "co-benefits". Health in All Polices* work should benefit multiple partners, simultaneously addressing the goals of government, public health agencies, and other stakeholders to benefit more than one entity and create efficiencies across agencies. This concept is essential for securing support from partners and can reduce redundancies to ensure more effective use of scarce government resources.

4. *Engage a variety of stakeholders*, such as community members, policy experts, members of the private sector, advocates, and funders. This is essential for ensuring that work is responsive to community needs and for garnering valuable information necessary to create meaningful and impactful change.

5. *Create structural or procedural change*. Over time, develop permanent changes in how government entities relate to each other and how decisions are made. This requires maintenance of both structures which can sustain inter-entity collaboration, and mechanisms which can ensure a health and equity lens in decision-making processes across all government entities. This can be thought of as "embedding" or "institutionalizing" health policy within existing or new structures and processes of government.

Available Planning Guidance

The American Planning Association (APA) supports socially, economically, and ecologically sustainable food systems that promote health — the current and future health of individuals, communities, and the natural environment. The APA, in conjunction with the American Public Health Association, has developed "Guiding Principles for a Health, Sustainable Food System."

The Michigan Association of Planning (MAP) - a state chapter of the APA - outlines specific "food elements" for consideration by Michigan planning bodies, emphasizing three main concerns: urban agriculture, sustainable agricultural practices and equity in food access, entrepreneurship and supply chains. These three food elements, or policy focus area, are:

Urban Agriculture

MAP suggests the encouragement of urban food production through home gardens, community gardens and market/commercial urban farms. Through local urban farming, communities gain access to opportunities for education, entrepreneurship, green and social space and reclamation of underused land. Communities can develop an infrastructure that supports urban agriculture by using a process of community input, land inventories, ordinance and zoning reviews, long term access to municipal services and land, and simple techniques such as composting.

Sustainable Agricultural Practices

With Michigan's unique location and resources, the state does not face some of the most difficult issues impacting agriculture in other areas of the United States, such as severe

drought. However, Michigan still faces environmental problems, such as top-soil depletion and water degradation, energy-production pollution, and use of pesticides, antibiotics and hormones. MAP identified some of the ways Michigan communities can use existing policy and legislation to combat these issues, including the state's *Right to Farm Act* legislation. Also, MAP's "Agricultural Land Preservation Policy" promotes reducing pesticide, antibiotic and hormone use in livestock and crops, and promotes consideration of sustainable environmental practices as a key element of farming.

Equity in Food Access - Entrepreneurship and Supply Chains
MAP believes it is vital for residents to have equal access to health and grocery stores in order to promote a healthful lifestyle. The biggest threats to this access are a lack of full scale grocers in the area, dependence on automobile transportation for travel to these stores, and infrastructure that does not adequately support local food suppliers. To implement equity in food access, MAP supports the creation of farm-city organizations, increased municipal support of farmers markets, small food-retail stores, and entrepreneurship efforts to combat single source markets.

RECOMMENDATIONS

Built Environment

- **Smart Growth -** Apply smart growth principles to decisions related to land development and planning, in order to increase physical activity via active transportation (walking and biking between destinations). The following tenets of smart growth indirectly address health via supporting a robust built environment:
    - *Mix Land Uses;*
    - *Take Advantage of Compact Building Design;*
    - *Strengthen and Direct Development Towards Existing Communities; and*
    - *Foster Distinctive, Attractive Communities with a Strong Sense of Place*

- **Encourage development in urbanized areas** - Create/maintain incentives for new development/re-development in developed areas, including tax-increment financing and assistance with tax abatement program applications.

- **Follow Complete Streets Guidance -** City staff should develop all street rehabilitation and reconstruction plans following the Complete Streets Policy and Guiding Principles that were adopted as a resolution by the City in 2011.

- **Routes and Wayfinding** - Develop a comprehensive network of on-street bicycle and pedestrian facilities connected to the multiuse path system, including easily-identified wayfinding guidance (signs and markers), to connect our neighborhoods to schools, parks, workplaces, shopping and other destinations. Walking and biking should be an easy and convenient option in order to increase active transportation and physical activity.

- ***Safe Routes to School -*** Coordinate with schools for SR2S grant funds, and otherwise prioritize walking and biking to and from schools. With all else being

equal, sidewalk and bikeway improvements should be implemented in proximity to schools first.

- **Open/Green Spaces** - Promote existing community parks, beaches, paths, forests, etc.
    - Raise awareness about ways to enjoy the outdoors all year round, as the Arts and Culture Center raises awareness about art in the community.
    - Support efforts to provide exercise facilities within many public parks.
    - Ensure public property has plentiful tree canopy to create attractive, shaded space that is inviting to the public and ecologically valuable.

- **Planning/Policy -** Integrate land-use, transportation, community design and economic development planning with public health planning to increase active transportation and other physical activity.

Community Food Systems

- **Amend Guidance and/or Regulation -** Plans, policies and ordinances.

    - Craft and/or amend guiding and regulatory documents so the community can support the strengthening of the local food system, after evaluating existing policies and regulations for obstacles to that support.
    - Support urban food production through home gardens, community gardens, and land uses allowing for urban market/commercial farm use.
    - Develop policies/ordinances that could allow the interim use of public land for gardens, agricultural practices, or to be landscaped with edible vegetation.
    - Create more opportunities for access to healthy foods, by allowing temporary sales of garden produce in residential areas; through expanded land uses for small food retail stores; and by improved transit.
    - Provide adequate open space for neighborhood vegetable gardens.
    - Support routine consideration of health in public decision-making by embracing a "Health in All Policies" approach to "embedding" or "institutionalizing" health policy within existing and new structures and processes of government.

- **Resource Preservation/Protection** - Take advantage of opportunities to collaborate with public, private, and nonprofit entities to preserve agricultural and environmental resources and protect ecologically critical and fragile areas.

By focusing on public health through these recommendations, the City can provide an improved measure of well-being for its residents. Hence, health considerations should be incorporated into City planning and legislation. Planning for the impact of the built environment on the health of residents can only improve community health in the long term, which should increase the quality of life in the community and also relieve the pressure on government programs such as Medicare and SNAP. With an emphasis on health impacts in routine decisions, the City will truly advance the public mission of protecting the "health, safety, and general welfare" of the community.



Introduction

Marquette's is known for being a hub of artistic and cultural activity, and as a community that fosters and promotes the arts. Marquette works to continue support for all areas of creative activity including visual arts, music, theatre and other performance, ceramics, culinary arts and more. In today's climate, developing a strong, interconnected and sustainable regional economy with the creative sector as a full partner is necessary to ensure a viable and vibrant future for Marquette residents, businesses and visitors. With that focus, the City of Marquette recently completed an Arts and Culture Master Plan.

The overarching goal of the Arts and Culture Master Plan is to provide a roadmap for a new ten-year strategic direction for the City of Marquette and for its cultural and creative sector to become a full partner in the social and economic life of the region. This plan also connects to the broader goals of the City which includes partnership opportunities across the region that will, in turn, strengthen the creative community.

Arts and Culture Master Plan

A comprehensive cultural planning process was prompted due to growing demands on the Arts and Culture Division coupled with an over 20-year-old cultural plan. In October 2013 the City contracted with Christine Harris of Christine Harris Connections and Tom Borrup of Creative Community Builders as the lead consultants. In addition, a 25-member cultural steering committee representing a wide spectrum of arts, business, education, heritage, philanthropy and professional sectors was formed to help guide the process. On July 14, 2014, a new ten year Arts and Culture Master Plan was approved by the City Commission offering a new mission and direction. The Division will transition from being a producer of artistic product to a hub/clearing house providing resources and services designed to build capacity for the expansion and strengthening of the arts, culture, and creative community.

New Mission Statement

The City of Marquette's Office of Arts, Culture and Creative Economy serves to support, facilitate and grow an empowered and vital arts, culture and creative community.

Two Major Initiatives

1) A commitment to supporting a robust cultural life and creative economy through an empowered arts and culture office and recognizing that the Art and Culture Division is critical for a vibrant and engaged community

1.1 GOAL: Retain and reframe the City's role in supporting arts and culture; rename to City Office of Arts, Culture and Creative Economy

1.2 GOAL: Support an active, engaged community of healthy, lifelong learners

1.3 GOAL: Ensure an attractive, supportive and sustainable environment for artists and creative businesses

2) To develop a regional partnership that fosters communication and collaboration across the Marquette Area's arts, culture and creative sector to increase the contribution and value of the Marquette area's creative assets.

2.1 GOAL: Develop collaborative marketing and promotional efforts that incorporate the breadth of culture and creativity in Marquette area with a strategy that connects to and integrates the efforts of City, Northern Michigan University, Duke Lifepoint, Downtown District Authority (DDA), County Convention and Visitors Bureau (CVB), and others

2.2 GOAL: Establish a formal Marquette Area Culture and Creative Alliance

2.3 GOAL: Foster an integrated strategy for community festivals and celebrations

2.4 GOAL: Continue to engage the public in dialogue about the future of arts and culture in the Marquette area

2.5 GOAL: Establish comprehensive talent development, attraction and retention plan

2.6 GOAL: Integrate economic development planning for arts, culture and heritage with downtown development, historic preservation, regional food hub development and area-wide economic planning

Marquette Arts and Culture Division

Through the creation of an Arts and Culture Division in 1996 the City of Marquette has strived to encourage, develop and facilitate an enriched environment of artistic, creative and cultural activity vital to this community. Since 2000 the Division has operated the City of Marquette Arts and Culture Center (MACC) located in the lower level of the Peter White Public Library. The Center provides workshops, art exhibitions, meeting space for arts organizations,



A gallery at the Marquette Arts and Culture Center.

community art projects, and special events and programs throughout the year. Over time, the Division has been responsible for commencing new projects and programs, including the development and eventual spinning off of Youth Theater, providing support services and resources for arts and cultural organizations such as the Lake Superior Art Association, Marquette Symphony Orchestra and the Marquette City Band. In addition, the Division presents signature events, including the First Thursday Performance Series, Halloween Spectacle, Annual Arts Awards, and Holiday Art Sale.

Arts and Culture Scene

There are many cultural events that display the artistic talents, tastes and cultural values of local residents. Whether an art festival in lower harbor, biking the Heritage Trail, taking in a concert on Presque Isle or attending a play in a boat house, Marquette's unique cultural experiences are heavily influenced by the natural environment and local history. Pristine forests and the mighty Lake Superior provide the backdrop for art, music, heritage, and a wide array of winter and summer sports year round.

Heritage

The reverence for heritage and preservation is evident in the many local museums and historic architecture like the Marquette Regional History Center, the oldest historical society and museum in the Upper Peninsula, Marquette Maritime Museum, Shiras Planetarium, Moosewood Nature Center, Beaumier Heritage Center, and community cultural centerpiece that is the Peter White Library. Historic architecture and landscape features provide a window into Marquette's past; The County Courthouse, the Savings Bank building, Presque Isle Park, Marquette Lighthouse, the Iron Ore Heritage Trail, Landmark Inn, the Father Marquette Statue and other iconic structures - such as the defunct lower harbor iron ore dock and the working upper harbor ore dock - tell the history of Marquette and portend its future.

Downtown



The commitment to downtown Marquette revitalization, and the 3rd Street Corridor that connects downtown to Northern Michigan University, brings palpable excitement to the spirit and economy of the area. This not only includes the nonprofit enterprises such as museums and galleries but also incorporates new creative enterprises such as breweries, restaurants and private galleries. Events like the "Downtown "Showdown" ski and snowboard competition (pictured above) and the UP 200 Sled Dog Races generate activity to keep things interesting year-round. Downtown Marquette is a vital and character-filled area pulsing with potential and opportunity.

The City's green space and pocket parks are cared and protected by several community members and groups. One of the strongest advocates and longstanding advocates is the Marquette Beautification and Restoration Committee. The group has spearheaded innumerable projects, including the flowers along Founders Landing, and the restoration of the Father Marquette statue on the harbor. This committee is dedicated to the aesthetic development and character of Marquette.

Marquette fosters a very interesting integration of art within its business environment. A large percentage of restaurants, bars and other community gathering places host local artists and live performances on a regular basis. This activity provides a sales venue for the artists as well as an appreciation for the creative sensibilities of the Marquette area.

Performing and Visual Arts

Music

Marquette is home to the Upper Peninsula's largest music scene, ranging from small acoustic acts to large national entertainers. Large and small venues draw music enthusiasts from throughout the Midwest. Much of the music scene occurs throughout restaurants, parks, bars and cafés, with larger performances on NMU's campus and the Marquette Area Public Schools very own historic Kaufman Auditorium.



A performance at the 2013 Marquette Blues Fest in Mattson Park

Marquette is home to a number of large, outdoor, long-standing festivals through the summer months, many of which are focused on musical performance. The Hiawatha Music Festival takes place in Tourist Park every summer, offering camping and outdoor musical performances in multiple venues, as well as workshops and dance stages. The Marquette Blues Fest in Lower Harbor pulls in a large number of music fans with an annual attendance of over 3,000. In addition the Marquette City Band and Marquette Symphony Orchestra offer year round concerts. The Marquette DDA also promotes live music with its monthly *Music on Third* program during the summer months as well, hosting over a dozen acts outdoors at each event.

Theater and Dance

Marquette has a strong theater scene through both the local community and NMU. Community members and students participate freely between productions whether on campus or downtown. Kaufman Players, Lake Superior Theater, Lake Superior Youth Theater, and Forest Robert's Theater on campus provide high quality theater

experiences for all ages. Audiences enjoy unique venues such as the historic Kaufman Theater and the Lake Superior Theater based in a historical boathouse.

The Marquette dance community continues to grow and develop. Opportunities to train and perform are a direct result of the University's new Dance Minor and several private dance studios. Support from local businesses such as Second Skin Dance Shop and collaboration throughout the arts community has resulted in the Blueberry Dance Festival, and the annual Nutcracker Ballet.

Culinary Arts

With its emergence as a regionally and nationally recognized "foodie" hub, Marquette residents and tourists enjoy locally grown food year round. Marquette Food Cooperative and NMU provide outreach and connect local farmers to both individual families and businesses. Local food has become standard fare at local festivals, retail shops, restaurants, and coffee shops.



A number of festivals occur throughout the year, highlighting local and ethnic cuisine. These include the Blueberry Festival, Hiawatha Music Festival, International Food Fest, Harbor Fest, and Scandinavian Midsummer Festival.

The local production of craft beer has also become a very popular offering, with several breweries in the City seeing a robust business in the enjoyment of fine, fresh beer. An annual Beer Festival has taken place in Mattson Park for the past several years as well. Live music is often a part of the success of breweries.



Fresh beer and live music are a winning combination at local breweries.

The Marquette Food Co-op paves the way for local farm to table promotion through an Upper Peninsula Food database and their emphasis on sustainable, local food production. NMU's Culinary Arts program offers another direction and source of possible growth within the culinary scene of the City. Possible collaboration between local business, students, and the community could offer new event opportunities and/or expansion of culinary programs in Marquette.

Visual Arts

Marquette is home to a large visual art community. Galleries, private art studios, art guilds, and associations provide countless exhibition opportunities for local and training national and international artists and training for both the beginner and professional. Galleries host local, national and international artists. These include, the City of Marquette Arts and Culture Center, Oasis Gallery, Huron Mountain Gallery (Peter White

Public Library) and Devos Art Museum (Northern Michigan University). In addition local restaurants and businesses exhibit art throughout the year and have intentionally integrated art into their business plan. Marquette boasts several private studios and galleries operated by graduates and professors from Northern Michigan University's Department of Art and Design; Zero Degrees Gallery, Bike Furniture Design, Beth Millner Design, Risak Pottery and Presque Isle Station. Northern Michigan University's Art and



Art on the Rocks is an annual event that has been in a few different Marquette locations since its beginnings in 1958, but recently this major art show has attracted over 175 artists and 10,000 visitors per year. Photo courtesy of Jack Deo-Superior View and marquetteartontherocks.com.

Design Department has become the largest major on campus and its' graduates continue to nourish and develop the local creative economy.
Lake Superior Art Association is the largest arts in the Upper Peninsula and hosts six exhibits annually at the Marquette Arts and Culture Center. The Association offers two outdoor exhibits annually; Glacier Glide, a winter exhibition on Presque Isle (art enthusiasts may ski or snowshoe) and Art on the Rocks, a juried art show overlooking Lake Superior and featuring over 200 regional and national artists in the month of July.

Imagining Marquette's Future

In recent years, Marquette has re-imagined itself to include a recognized high-quality haven for artistic, creative enterprises, a regional sustainable culture hub, and an interesting experiential learning environment for residents, retirees and tourists alike. The ongoing revitalization of downtown, the harbor area, and the NMU campus is bringing more retirees and year-round visitors to the area. This in turn will support more creative entrepreneurship and continue Marquette's position as the epicenter of

Michigan's UP life. The life attitude, physical assets and the cultural sensibility of Marquette will ensure its dynamic, inventive future.

Marquette's future will be firmly embedded in the strengths and assets that have brought it this far. Capitalizing on the community's distinguishing assets and characteristics will yield a quadruple return by improving the community's social, economic, creative and environmental capital. The people of Marquette will continue to inspire, educate, sustain, and care for the values they cherish. These values include reverence for natural surroundings, an interdependent self-reliance, respect for history, living authentically, and pride in community accomplishment. Marquette will invent what it needs when it needs it. As a resilient, practical yet visionary community, the people of Marquette will have the attitude to walk its path in its own unique way.
Marquette is a genuinely authentic community and will not waver from that dedication as it creatively imagines its future.

Recommendation

- Consult the Arts and Culture Master Plan regarding questions or concerns about relevant issues.

The Arts and Culture Master Plan [2014] may be found on the City of Marquette website, on the Arts and Culture Dept. homepage: http://www.mqtcty.org/arts.php



A dancing performance during the 2014 Blueberry Festival in downtown Marquette.



A hand-colored photograph of a scene in Marquette's lower harbor in 1870. Photo courtesy of Superior View.

The Marquette Area Over Time

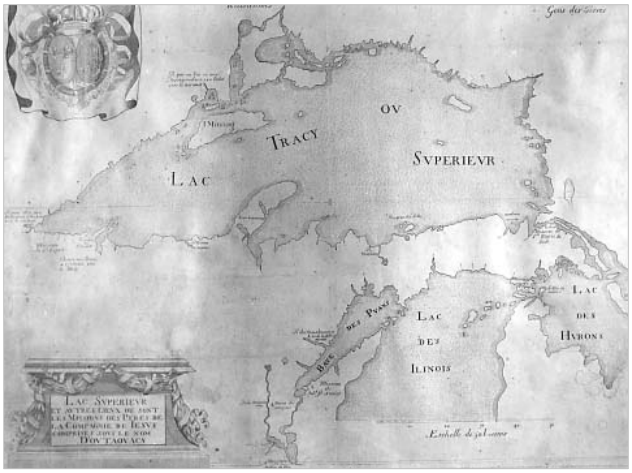
The history of Marquette is inextricably tied to the abundant natural resources of the area. People initially came into the Lake Superior region about 10,000 years ago, likely from the area that is now Siberia, after the retreat of the ice sheets during the last glacial period. They were nomadic hunter-gatherers who used stone-tipped spears to hunt caribou, bison, elk and deer. Archaeological evidence exists of a hunting camp that was used 9,000 years ago near Deer Lake in the Ishpeming area, and also of people residing in the Marquette area over 5,000 years ago.

Archeologists identify several culturally distinct groups that followed the first "Plano" peoples, including the "Shield Archaic" (c. 5000-500 B.C.), who used bows and arrows, dugout canoes, and fished, hunted, mined copper for tools and weapons, and established trading networks. The "Laurel" people (c. 500 B.C. to A.D. 500) developed seine net fishing, and the "Terminal Woodland Indians" (c. A.D. 900-1650) were Algonquian people who made snow shoes, birch-bark canoes, conical or domed lodges, and hunted, fished and gathered berries.

The Anishinaabe, a group of several related tribes, including the Ojibwe (or Chippewa), have inhabited the Great Lakes region for over 500 years. They called Lake Superior *Anishnaabe Gichigamiing*, or "the Ojibwe's Ocean". After the arrival of Europeans, the Anishinaabe made themselves the middle-men between the French fur traders and other Native peoples. They soon became the dominant Indian nation in the region: they forced out the Sioux and Fox and won a victory against the Iroquois west of Sault Ste. Marie in 1662. By the mid-18th century, the Ojibwe occupied all of Lake Superior's shores. According to the 1830 census, 81 members of the Chippewa Tribe lived along the lower Chocolay River.

Etienne Brule was possibly the first European to look upon Lake Superior, in 1622. Fur-trading companies sent many more Europeans into the area afterwards, and the

Anishinaabe showed the trappers and voyageurs water and portage routes, the building of birch bark canoes, snowshoes and sleds, maple sugaring, and fishing. The trading companies eventually began commercial fishing businesses, and Scandinavia immigrants eventually arrived to take fishing jobs on Lake Superior.



French language map of the L. Superior region, circa 1750

In 1844, William Burt and Jacob Houghton discovered iron deposits near Teal Lake, west of Marquette. In 1845, Jackson Mining Company was the first organized mining company in the region to be formed. Marquette's early iron industry began with the construction of a forge built at the mouth of the Carp River in the summer of 1847. This forge was used to process ore from the Jackson Mine. The forge started producing iron in February 1848 and operated intermittently until 1856.

In 1849 four businessmen from Worcester, Massachusetts - Amos R. Harlow, Robert J. Graveraet, Waterman A. Fisher, and Edward Clark - collectively formed the Marquette Iron Company. Graveraet was sent to the Lake Superior region to begin the ground-work for the operation. At Mackinaw Island he hired men to help him including Peter White. A village in Marquette's current location was established after Harlow selected a protected site near Ripley's Rock to build his foundry and port. First called New Worcester, the village was to become the center of the first permanent settlement of Marquette.

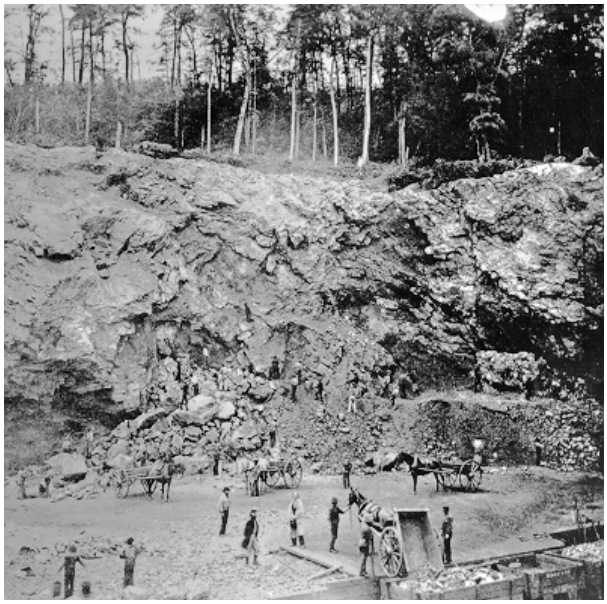
In 1849, when Harlow's party arrived by boat along the shores of what would become Marquette Bay, they were greeted by Charles Kawbawgam, the chief of an indigenous band of Chippewa. Kawbawgam and his wife Charlotte were living in a clearing of about 5 acres adjacent to present-day Founders Landing, in a small village of about 10 wigwams. Future Marquette luminary Peter White was an 18-year-old oarsman of the boat party, and he described the scene this way:

> "There were two small log houses there and perhaps nine or ten birch bark wigwams all occupied by 'Lo, the Poor Indian.' There was a small clearing not to exceed five acres and beyond that a dense almost impenetrable thicket or forest was found on every side. The whole lake front from Light House Point nearly to the mouth of Carp River, was one mass of foliage that overhung the water and in some places immersed itself in the water. It was a whole, the most beautiful day I ever beheld. There is not other place on the South Shore of Lake Superior as handsome as was Marquette Bay at this time."

In 1850, the village of Worcester was renamed Marquette in honor of Father Jacques Marquette, the Jesuit missionary priest and explorer (1637-1675) who camped on Lighthouse Point during a trip along the south shore of Lake Superior in 1669. Peter

White opened the "Carp River" post office in 1851. The Marquette Iron Company failed, while its successor, the Cleveland Iron Mining Company, flourished and had the village platted in 1854. The plat was recorded by Peter White. White's office was renamed as Marquette in April 1856, and the village was incorporated in 1859.

Many technological forces in transportation merged to benefit commerce during the second half of the 19th century, which helped to secure prosperity for Marquette. During the 1850s, Marquette was linked by rail to numerous mines and became the leading shipping center of the Upper Peninsula. A 25-ton American Standard locomotive named the *Sebastopol* arrived in the Marquette Harbor in 1855. This locomotive traveled a 12-mile line stretching from Negaunee to Marquette named the Iron Mountain Railroad. "The railroad was soon shipping iron ore down the hills into Marquette to the tune of some 1,200 tons of ore per day."



Early open-pit mining at the Jackson Mine in Negaunee, with rail cars at bottom right. Photo courtesy of the Michigan Historical Society.



The John Burt house on Craig Street. Recognized as the oldest standing building in Marquette, this building was erected in 1858. it was designed to be a warehouse and clerks office for the Burt Brothers sandstone quarry which was one half mile south.

This rail line led to a pocket ore dock, the first of its kind in the world, constructed in 1857 by the Cleveland Iron Mining Company as a vast improvement in efficiency from the previous method of hand-carting ore into ships. Lake Shore, Inc. opened in 1858 as the Lake Superior Foundry Company. It supplied the mines and mills of the area with foundry products and blast furnace equipment. Other businesses opened shortly thereafter. These included a tannery, gas plant, brownstone quarry, a powder company to provide explosives for the mines, transfer lines, and several brickyards.

Railroads continued to expand southward to Bay de Noquet and Menominee, finally reaching far enough south to meet with existing rail lines in Eastern Wisconsin. This increasing transportation network opened the doors for increased regional development.

By 1862, the city had a population of over 1,600 and a soaring economy. Businesses and industries emerged to support the mining and shipping operations and the growing population. The charcoal iron making industry relied heavily on a steady supply of hardwood from the surrounding forests. As time passed, more housing was needed and built; shingle mills, sash mills and sawmills were also established.



Marquette's Lower Harbor in the 1860s. Photo courtesy of Superior View Studios of Marquette.

On June 11, 1868 Marquette suffered a setback that would ultimately change the center of the thriving frontier village. A fire broke out in the Ontonagon Railroad shop near the corner of Front and Main Street that destroyed most of the existing Village of Marquette. There was a reported loss of over 100 buildings and an estimated loss of 1.5 million dollars. Over forty families were left homeless. All but one ore dock burned to the ground as well.

This tragedy prompted the village council to pass an ordinance prohibiting the erection of any wooden buildings in the business district. The ordinance stated that no wooden buildings were to be erected, without permission of the Common Council, within the boundaries of: on the North, by a line drawn midway between Bluff and Washington Streets; on the East, the shore of Lake Superior; on the South, the south line of Rock Street; and on the West, the west line of Third Street.



Foundations are all that remain of buildings in the foreground of this photo, taken after the fire of 1868. Photo courtesy of Superior View.

Concerned citizens also began the establishment of a community waterworks that would take water from Lake Superior. Construction began on the waterworks in 1869, and it started pumping water in February 1870. Marquette was incorporated as a city on February 27, 1871.

For the first 30 years, Marquette's economy was tied to the iron ore industry, primarily blast furnaces, railroads, and shipping by water. In the 1880's, efforts were made to diversify and provide additional opportunities for residents. The efforts were successful,

and Marquette flourished, becoming the leading population and business center in the remote central Upper Peninsula.

Northern Michigan University (NMU) opened in 1899 as a State Normal School to educate teachers for the Upper Peninsula. The school opened with thirty-two students, six faculty members and Dwight B. Waldo as principal. In 1918 the first four-year program was introduced and the first Bachelor of Arts degree was given two years later.

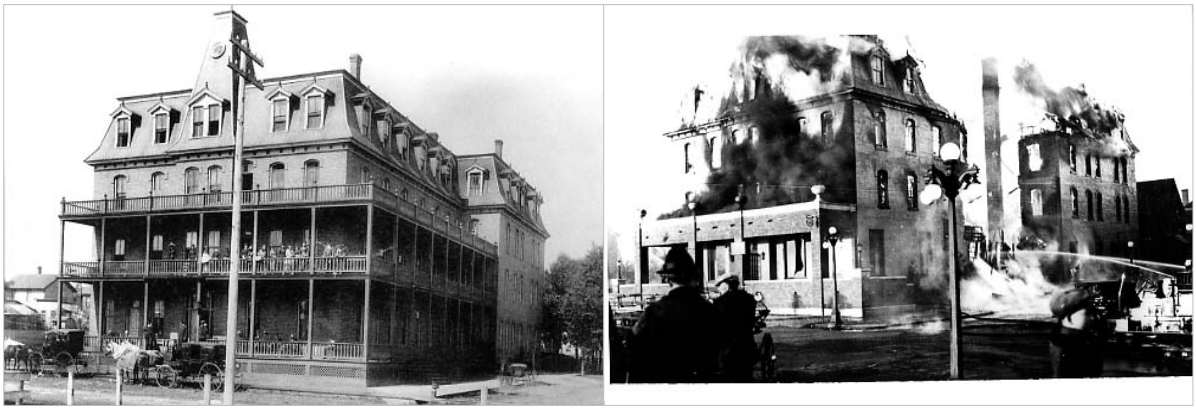


NMU students circa 1940. Photo courtesy of Superior View Studios.

NMU is a major employer in Marquette, and students of the university now comprise about a quarter of the City's residents, thus having eclipsed other industries and institutions in terms of impact on the City.

In the late 19th century, during the height of iron mining, Marquette became nationally known as a summer haven. Visitors brought in by passenger steamships filled the City's hotels and resorts. This began a significant element of the Marquette economy, where tourism is now a significant local industry. At one time several large hotels could be found around downtown Marquette, but they could not be sustained over time.

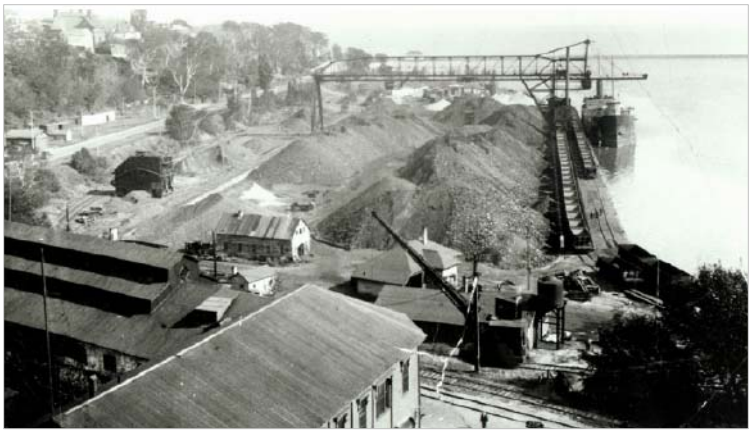
The sparsely-populated Lake Superior country, with its rugged shorelines, vast forests and wilderness, attracts tourists and adventurers, while the cultural and urban amenities of Marquette have made the City a popular destination.



The downtown Hotel Marquette, which burned down. Fire destroyed many early buildings in Marquette. Photo courtesy of Superior View.

In 1929 the City adopted its first Zoning Ordinance, which provided for separating types of land use into distinct residential, commercial, and industrial districts. That ordinance was not updated until 1950, when the first official zoning map was adopted. The form and feel of the City was directly impacted by these ordinances, which were intended to protect health and reduce property-use conflicts. In retrospect there were several unfortunate, unintended consequences, such as eliminating "corner stores" and "live-work" options (residential above, commercial below) from residential areas, and the elimination of low-cost housing that was available through accessory-dwelling units.

These and other lessons learned are being incorporated into this plan as recommendations, to move beyond the mistakes and shortcomings of past ordinances.



The Marquette Dock Co. Coal Dock, circa 1936, was built just downhill of the most beautiful homesites in Marquette. Zoning Ordinances separated incompatible land uses. This is now the site of Mattson Park in lower harbor. Photo courtesy of Superior View.



This view of the Marquette lower harbor area from the early 1960s shows the extent of industrial activity along the shoreline, with the Soo Line Ore Dock, railyards, viaduct, tank storage, and coal-handling facilities all in place. Photo courtesy of Superior View.

In April 1931 construction of the Soo Line Ore Dock began as a replacement for Dock #5, and on June 2, 1932 the first ship moored to it, taking ore from the Ford Motor Company's Blueberry Mine in Ishpeming to Detroit. This dock was used for iron ore transport until Dec. 1971, mainly by small, independent mines. The amount of ore for shipping from the mines could not justify upgrades needed beyond that shipping season.

South of the city, K. I. Sawyer Air Force Base was an important Air Force installation during the Cold War era, host to B-52 bombers, KC-135 tankers, and a fighter interceptor squadron of the Strategic Air Command. The base closed in September 1995, and the airstrip is now used as Sawyer International Airport, the largest commercial airport in the central Upper Peninsula.

In the 1960s the US-41/M-28 highway bypass was built, which led to a decline in downtown business activity and the construction of "big box" stores Shopko and K-Mart, as well as the Marquette Mall, on the fringes of the City and close to the highway.

Marquette eventually came to be the center of medical care in the Upper Peninsula, particularly after St. Luke's and St. Mary's hospitals merged in 1973, becoming Marquette General Hospital; and further in 1985, when the hospital was federally designated as a *regional medical center*. In 2012 the non-profit hospital was purchased by the for-profit LifePoint corporation, in partnership with Duke University (for clinical expertise). Duke LifePoint announced in September of 2013 that the hospital would be re-locating to a new site.

Due to its central location in the U.P., Marquette and adjacent Marquette Township have also become a regional shopping hub. In early 2013 the State of Michigan designated Marquette as a new state "food hub," largely due to the success and efforts of the Marquette Food Cooperative in fostering the development of a strong network of regional farmers, and other food producers and distributors.

While this history is only a literal sketch of a very colorful and complex picture, the illustration shows that Marquette has throughout its history continued to make steady progress, and in some cases it has lead the way and been ahead of the curve.



The corner of Third St. and Washington St. in downtown Marquette in 1960. The type of grocery store shown in this photo has been displaced by large "supermarkets" with tens of thousands of products. Photo courtesy of Superior View Studios.



Downtown Marquette in summer 2012. Trends in shopping and entertainment have changed, but some businesses have been preserved over many decades and are as appealing now as ever.

Early Marquette Luminaries

While many people were involved in the planning and building of the Marquette community, these individuals played particularly influential roles in the area's growth and development, helping to establish the community's basic foundations and providing leadership that has benefitted Marquette in unique ways:

Peter S. White

Among pioneers to whom the Upper Peninsula owes much, perhaps no man was more widely known than Peter White. White was born in Rome, New York, and came to Marquette in 1849 at the age of eighteen (see p. 12-2). At that time he was in the employment of the Marquette Iron Company and helped to erect some of the first buildings, including his home which was the first to be built on the ridge overlooking the harbor. Over the years, White served in many capacities in the public arena, including postmaster and state representative, and was also involved in numerous enterprises in the area. White won a legislative grant to a build railroad from Sault Sainte Marie to Marquette, and was instrumental in securing Presque Isle from the U.S. Government for a park (it was a lighthouse reserve), for which he travelled to Washington D.C. to lobby. Peter White was also influential in the development of the public library system in Marquette. The first public library was constructed in 1856 with a new building given in 1872 through a $5,000 donation by White. The present Peter S. White library was constructed in 1904.

Chief Charles Kawbawgam

The leader of the band of Chippewa living in the bay when the Everett party arrived, Kawbawgam was important in aiding the newcomers, and he became a close friend of Peter White. Charles Kawbawgam lived his entire long life on the shores of Lake Superior, including two decades each near Sault Ste. Marie, Tahquamenon Bay, and another decade on the Canadian shore before coming here.



Charles Kawbawgam in 1896. Photo courtesy of Superior View.

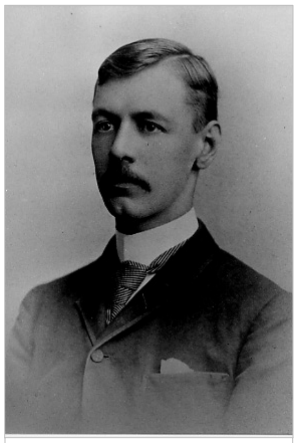
Charles and his wife Charlotte lived on Presque Isle during the last two decades of the 19th Century and into the 20th, which coincided with the opening of Presque Isle Park in 1898. They lived by hunting and fishing, and Charles learned English from Peter White, Alfred Kidder, and other citizens of Marquette while living on "the Island." When Charles Kawbawgam died in 1903, at about 103 years old, he was well known throughout the Upper Peninsula and below the Straits of Mackinaw.

Philo M. Everett

Everett came to the Upper Peninsula after hearing favorable reports about vast iron deposits in the area. Native Americans showed him the "great iron mountain" in the Negaunee area, now known as the Jackson Mine that his company opened. It is the oldest iron mine in the region. Everett served as Marquette's first Supervisor and held countless other civic positions.

Amos R. Harlow
Harlow is the recognized founder of Marquette. He is a descendant of Captain William Harlow, who came to the Plymouth Colony, Massachusetts in 1642. Amos Harlow was born near Worcester, Massachusetts in April 1815. He was part of the Marquette Iron Company, organized in Worcester, Massachusetts to develop and utilize iron ore from the Upper Peninsula. Prior to arriving in the Marquette area, he had already recognized the importance of the Upper Harbor (Presque Isle Harbor) and the Dead River to the future of the area and purchased two fractional sections on each side of the Dead River. The Marquette Iron Company was eventually consolidated with the Cleveland Iron Company. Harlow never sought public office but was influential in the development of Marquette.

George Shiras III
Shiras first came to Marquette in 1870 and was a part time resident for over 70 years. He is considered the world's first great wildlife photographer, having invented many techniques (locally) for photographing wildlife at night, and his photographs elevated and transformed the National Geographic magazine. Some of his local philanthropic contributions included the public gift of beautiful Shiras Park (2,150 ft. of beach/shoreline property), an endowment for the Federated Women's Club, and funding for the construction of Shiras Pool at Presque Isle (now defunct). He also established the Shiras Institute in 1938, a non-profit corporation dedicated to establishing recreational and cultural activities in Marquette.


Geo. Shiras III. Photo courtesy of Superior View.

John M. Longyear
Originally a native of Lansing, Michigan, Longyear came to the Upper Peninsula in 1873. Although concerned primarily with timber and mineral lands, Longyear contributed to the public library and education. He was at one time the Mayor of Marquette and assisted in the establishment of both Northern Michigan University and Michigan Technological University.

Historic Places and Sites

The City of Marquette is a place of great historical wealth in terms of both architecture and historic sites. What follows is a list of historic places located within the City as listed by state and federal historic registers, and a map listing the sites (on p. 12-16).

1) PRESQUE ISLE HARBOR ORE DOCK

Location: Presque Isle Harbor

National Registry: No State Registry: Yes, 9/25/56

The LS&I (Lake Superior and Ishpeming) ore dock is made of concrete and steel construction. It was built in 1912 to replace an earlier pocket ore dock and is still in use.

2) LOWER HARBOR ORE DOCK (SOO LINE ORE DOCK)

Location: Presque Isle Harbor

National Registry: No State Registry: Yes, 9/25/56

Currently the only other ore dock left standing, though evidence of other docks can be seen, is the DSS&A (Duluth, South Shore and Atlantic Railroad) ore dock. This dock was constructed in 1931. It is of steel and concrete construction with a capacity of 56,250 tons. This dock is no longer used.

3) MARQUETTE HARBOR LIGHT STATION

Location: Lower Harbor (Iron Bay)

National Registry: Yes, 7/19/84 State Registry: No

Originally built in 1866, it is a two-story brick building with a square tower. This replaced an earlier light station erected in 1853, whose lights were powered by kerosene. In 1927, the light was switched to electricity and had a visibility of nineteen miles in clear weather. The foundation of the light station consists of three feet of brick and stone with walls eighteen inches thick built to withstand the storms on Lake Superior. The light station is currently owned by the US Coast Guard.

4) CITY WATER WORKS, MARQUETTE MARITIME MUSEUM

Location: Lakeshore Blvd at Ridge Street

National Registry: No State Registry: Yes, 4/24/81

A fire that destroyed most of Marquette in June 1868 furnished the incentive for building a community waterworks. Construction for the waterworks started in 1869 and the plant was put into operation in February 1870. The sandstone building is a D. Fred Charlton design. It has round arched windows and a hipped roof. It has been the home of the Marquette Maritime Museum since 1984.

5) CALL HOUSE

Location: 450 East Ridge St. (2nd house on the left coming west from Cedar St.)

National Registry: Yes, 1/13/72 State Registry: Yes, 5/18/71

This house was built in the 1870's by C.F. Struck for C.H. Call, president of the Lake Superior Powder Company. An excellent example of Victorian Gothic design, board and batten construction was used. The gables are steeply pitched and it has canopied windows, paired lancets, pierced ornamental bargeboards, and first floor windows nine feet high.

6) DANDELION COTTAGE

440 East Arch Street (1st house on left coming west from Cedar Street, one lot in)

National Registry: Yes, 6/18/80 State Registry: Yes, 5/18/71

Built circa 1880, this picturesque cottage was a central subject for a popular children's book written by Carroll Watson Rankin in 1904.

7) JULIAN T. CASE HOUSE

425 East Ohio St. (4th house on the left coming from Spruce St.)

National Registry: No State Registry: Yes, 6/1/6/72

Designed by Burnham and Root of Chicago, IL. This house was built for Julian T. Case in 1886-1887. The house was originally on a large wooded lot with a spectacular view. During a campaign swing through the Upper Peninsula in 1911, President Taft and his entourage stayed here.

8) IRON MOUNTAIN RAILWAY

Washington Street at Cove's Hill

National Registry: No State Registry: Yes, 2/18/56

Completed in 1857 to haul iron ore from the Jackson and Cleveland Mines in Negaunee to the Marquette Harbor, it was the first Steam Railroad in the Upper Peninsula. This railroad followed a survey begun at this site in 1852 by the Green Bay and Lake Superior Railroad, a forerunner of the Iron Mountain Railroad Company.

9) MARQUETTE COUNTY SAVINGS BANK—SAVINGS BANK BUILDING

101 East Washington Street (Southeast corner of Washington and Front Street)

National Registry: Yes, 9/13/78 State Registry: Yes, 6/18/76

Built in 1881, this building was designed by Barber and Barber. The foundation is of local Jacobsville sandstone and the upper levels are constructed of brick.



The Savings Bank Building has been a preservation success story.

10) HARLOW BLOCK

100 West Washington (Northwest corner of Washington and Front Street)

National Registry: Yes, 3/24/83 State Registry: No

The Harlow Block is a commercial block built in 1887 by Amos Harlow. The building is constructed of solid Marquette variegated sandstone. The rectangular shaped building measures 75 by 146 feet.

11) FORMER MARQUETTE CITY HALL

204 West Washington Street (Middle building, north side of the block)

National Registry: Yes, 4/11/75 State Registry: Yes, 10/7/74

Designed in 1894 by Lovejoy and Demar, it shows "Second Empire" French influenced style. It has symmetrical arches and polished granite columns. The walls are constructed of red brick and Marquette red sandstone. This building has served both the governmental and cultural needs of the community.

12) HOTEL JANZEN

146 West Spring Street (Middle building, north side of the block)

National Registry: No State Registry: Yes, 5/8/84

Built for William Janzen in 1893, it is a solid red brick building. It was used as a hotel until the 1970's. It was donated to a nonprofit group after a fire in 1983, restored and reopened to provide housing for people in transition.

13) MARQUETTE COUNTY COURTHOUSE

400 South Third Street

National Registry: Yes, 3/29/78 State Registry: No

A fine example of Neo-classical Revival architecture, this building was completed in 1904. It is constructed of Portage Entry sandstone from the Keweenaw Peninsula and was designed by Charlton and Gilmore of Marquette.



Dedication of County Courthouse - Photo Courtesy of Superior View

14) LAKESIDE PARK "Father Marquette" Park

501 South Front Street

National Registry: No State Registry: Yes, 12/5/86

Overlooking Iron Bay (Marquette's Lower Harbor), this park has a bronze statue of Father Jacques Marquette, for whom the city is named. This statue was presented to the City in July 1897 by its citizens.

15) BISHOP BARAGA HOUSE

615 South Fourth Street (Southeast corner of Fourth and Mather Street)

National Registry: No State Registry: Yes, 2/19/58

This was the house of Bishop Frederic Baraga during his stay in Marquette. The Bishop was known as the "Snowshoe Priest". Bishop Baraga was the first Catholic Bishop in Marquette.

16) BURT JOHN HOUSE

220 Craig Street (3rd house on the northside of the street in from Division St.)

National Registry: No State Registry: Yes, 2/19/58

Recognized as the oldest standing building in Marquette, this building was erected in 1858. Built of broken sandstone it was designed to be a warehouse and clerks office for the Burt Brothers sandstone quarry which was one half mile south.

17) MARQUETTE COUNTY POORHOUSE BROOKRIDGE

County Road 553 (Division Street) and Pioneer Road (demolished 1994)

National Registry: No State Registry: Yes, 10/23/86

Built in 1901 after the county voters approved $15,000 for the construction of a poor house, it was a two and one half story, Neo-Colonial Revival Style building. It was a brick veneer, sandstone and wood trimmed building. In 1981 it was closed due to lack of federal funding.

18) PIONEER ROAD CEMETRY-OLD CATHOLIC CEMETERY

Pioneer Road and Division Street

National Registry: No State Registry: Yes, 10/27/83

On April 25, 1861, Timothy Hurley and his wife Ellen donated four acres to Reverend Frederic Baraga for a free burial ground. Later, two more acres were also donated by another individual. This cemetery operated from 1861 till 1908.

19) POINT OF BEGINNING OF SURVEY OF FIRST UPPER PENINSULA RAILROAD

South Lake Road (US 41), mouth of the Carp River at Lake Superior, Marquette Lower Harbor

National Registry: No State Registry: Yes, 1/16/76

This is the point of beginning of the first survey of the Upper Peninsula Railroad that was to connect Marquette to Lake Michigan.

20) STATE HOUSE OF CORRECTION AND BRANCH PRISON (MARQUETTE PRISON)

East of the Carp River on the south side of US 41

National Registry: Yes, 11/27/77 State Registry: Yes, 12/18/74

Erected in 1888, the administration building, rotunda and cellblock B are the only original buildings of the prison complex still in existence.

21) UPPER PENINSULA BREWING COMPANY AND CHARLES MEESKE HOUSE

Meeske Street and US 41(Northwest corner of intersection)

National Registry: Yes, 5/15/80 State Registry: No

Built in 1873, the original brew was called "Drei Kaiser" and the first bottles were produced December 13, 1873. The brewery was sold and the name changed to "Castle Brew" and the building was remodeled to look like a castle. The last bottle was shipped in 1916. The only remaining structure is the brewmasters home, which was constructed in 1894.

22) NORTHERN MICHIGAN UNIVERSITY INFORMATIONAL SITE

Northern Michigan University campus (In front of the northwest corner of the Don H. Bottum University Center)

National Registry: No State Registry: Yes, 3/19/57

This marker commemorates the beginning of Northern Michigan University. Established by an act of the Michigan Legislature in 1899 as a Normal School, it was to train and provide teachers for the Upper Peninsula. Northern opened with thirty-two students, six faculty members and had Dwight B. Waldo as principal. A four-year collegiate program was introduced in 1918, and the first Bachelor of Arts degree was conferred two years later. In the 1950's, Northern became a multi-purpose institution placing emphasis on instruction, service, and research. In 1960, it established its own graduate of arts degree. Serving an ever-increasing student body, Northern achieved university status in 1963 through an act of the Michigan State Legislature.

23) KAYE HALL COMPLEX-NORTHERN MICHIGAN UNIVERSITY (demolished 1972)

Presque Isle Avenue and Fair Street (At present site of Sam M. Cohodas Administrative Center)

National Registry: No State Registry: Yes, 4/14/72

Designed by architect D. Frederick Charlton, it resembled a castle. Built of steel and concrete with a veneer of Marquette sandstone, it was completed in 1915 and demolished in 1972. It was named Kaye Hall to honor Northern's second president, James H.B. Kaye.

24) LONGYEAR HALL OF PEDAGOGY-NORTHERN MI. UNIVERSITY (demolished 1994)

Presque Isle Avenue and Fair Street (South of the Sam M. Cohodas Administrative Center)

National Registry: Yes, 4/3/80 State Registry: No

Built of sandstone quarried near L'Anse in 1900, it was rebuilt in 1907 after a fire. It served as offices and classrooms for faculty and students. Longyear was closed in 1972 and demolished in 1994.

25) ARCH AND RIDGE STREETS HISTORICAL DISTRICT

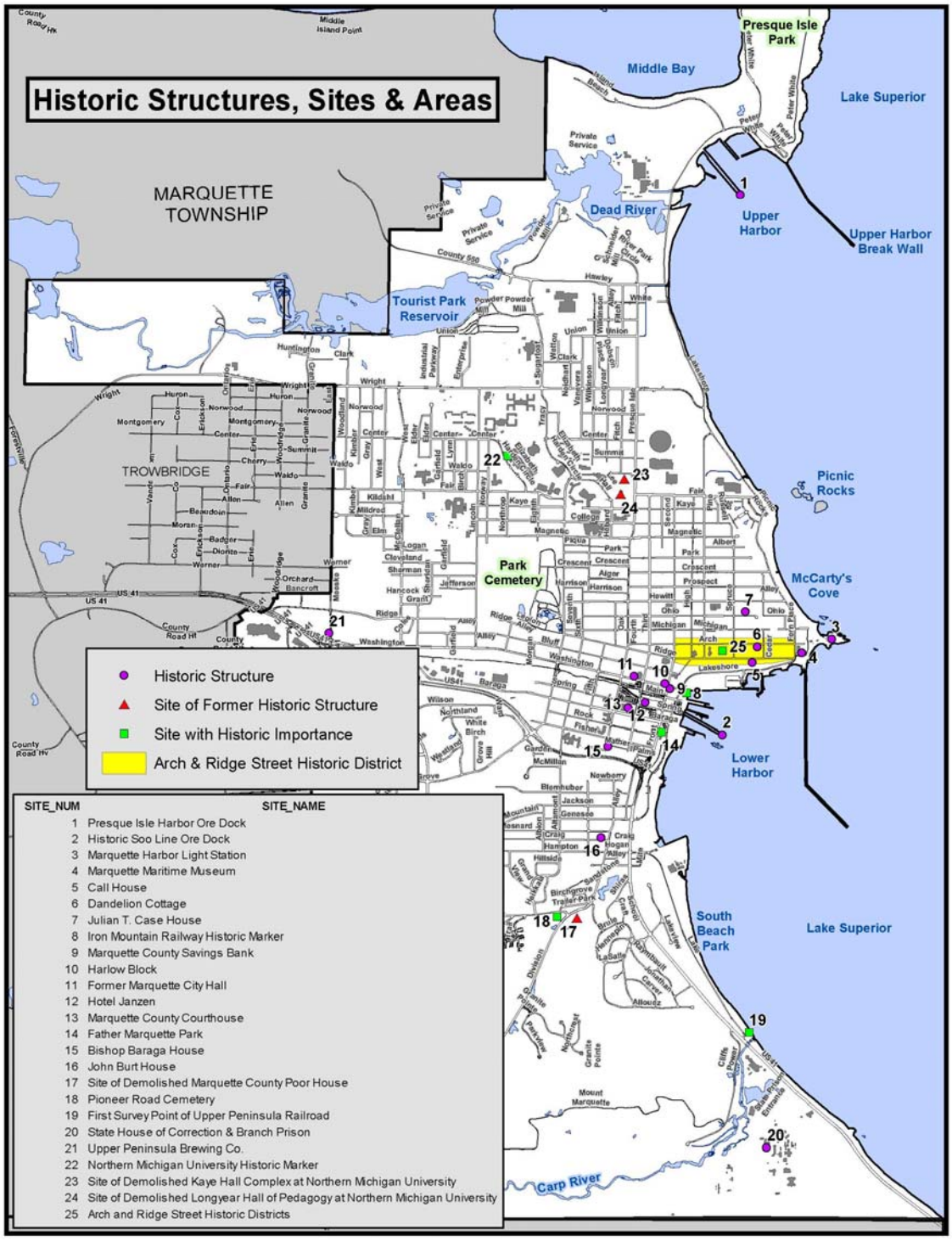
Arch and Ridge Streets from Front Street to Lake Superior

National Registry: Yes, 6/18/80 State Registry: No

This district contains 117 contributing structures on a dominating east by west land elevation that rises from 75 to 110 feet above Lake Superior. Peter White built the first home on the "Ridge" in the late 1860's and for the next thirty years many of the leading citizens followed his example and built there. Most of the construction took place during the last three decades of the 19th century. Locally quarried sandstone and wood from local sawmills provided building material.



` Homes in the Arch and Ridge St. Historic District. Photo by Andrew Jameson.



SITE_NUM	SITE_NAME
1	Presque Isle Harbor Ore Dock
2	Historic Soo Line Ore Dock
3	Marquette Harbor Light Station
4	Marquette Maritime Museum
5	Call House
6	Dandelion Cottage
7	Julian T. Case House
8	Iron Mountain Railway Historic Marker
9	Marquette County Savings Bank
10	Harlow Block
11	Former Marquette City Hall
12	Hotel Janzen
13	Marquette County Courthouse
14	Father Marquette Park
15	Bishop Baraga House
16	John Burt House
17	Site of Demolished Marquette County Poor House
18	Pioneer Road Cemetery
19	First Survey Point of Upper Peninsula Railroad
20	State House of Correction & Branch Prison
21	Upper Peninsula Brewing Co.
22	Northern Michigan University Historic Marker
23	Site of Demolished Kaye Hall Complex at Northern Michigan University
24	Site of Demolished Longyear Hall of Pedagogy at Northern Michigan University
25	Arch and Ridge Street Historic Districts

Figure 12.1: Marquette Historical Structures, Sites, and District

Historic Preservation

The term "historic preservation" may bring to mind the saving or resurrection of old buildings, but it is much more than that. It is preserving the memories of people, places and events in our community. It's the preservation of what connects us through time and space, and the preservation of our collective memory. Re-using historic places adds to the character and uniqueness of our community, providing a distinctive sense of place.

Aside from social benefits, there are many other benefits of historic preservation. The City of Marquette has numerous heritage assets, both on and off the Register of Historic Places. Heritage tourism is an increasingly powerful economic driver. Heritage tourists travel to experience the places, artifacts and activities that authentically represent stories and people of the past. Studies have shown that this type of tourist stays longer and spends more money. Marquette benefits from cultural, historical and natural resources to attract these tourists. Efforts should be made to capitalize and preserve our heritage assets.

Marquette's history connects our residents and attract tourists. In particular our unique red sandstone architecture is distinctively regional and was quarried from nearby geological formations. Investors and businessmen coming to Marquette brought with them the desire to build a sophisticated community. They hired respected architects of the day and many of them utilized the red sandstone in significant buildings. The County Courthouse, its architectural design and use of local sandstone, represents a visual metaphor for local government.

Preservation also helps to create sustainable communities. Reuse of existing buildings creates less waste in the landfill and reduces sprawl by investing in existing communities. Surveys show that reuse and retrofitting of older buildings creates more jobs than new build, most of that labor is hired locally and materials bought locally. Most of the businesses located in older buildings are locally owned. Preservation starts by supporting these locally owned buildings and purchasing locally grown and made products.

RECOMMENDATIONS

- Interpretation of our heritage assets should become a priority for the City and the Downtown Development Authority.
- See Ch.5 for historic preservation recommendations (p.5-29).

The overall look of our City is what residents value and what tourists seek. This look is unique to Marquette, it is our built environment and it defines the City.



The Lower Harbor Ore Dock, although defunct since 1971, has become an iconic structure for Marquette. An interpretive sign was erected here in 2012 as part of the Iron Ore Heritage Trail network. Staff photo.

PUBLIC INVOLVEMENT Appendix A

Introduction

In order to truly represent opinions and desires of the local community, public participation must be an ongoing process throughout the life of a project. It must also use a number of different mediums in order to reach the largest possible segment of the population, in hopes of representing the needs of the entire community. The City of Marquette has taken seriously this need for public input as a way to ensure the Community Master Plan is an accurate reflection of their residents' vision for the future. This chapter outlines the processes that have been used to collect meaningful input from the community and reports the full results of these participation sessions. This chapter will outline the public input results from Master Plan community visioning sessions and online survey, waterfront-use listening sessions, climate change adaptation planning workshops, and outreach for the Third Street Corridor Sustainable Development sub-area plan.

Methods of Public Participation

The City of Marquette's dedication to meaningful public participation in planning is manifested in a wide variety of outreach activities, and is intended to include the largest number of residents and business owners. Outreach activities take many forms, and specific to the update of the Community Master Plan, and the ancillary plans that are included, the following mediums were utilized:

Community Master Plan - overall
Community Visioning Workshops
Public Survey (online, paper distribution)
Speaking engagements (to several groups)
Online Outreach (webpage, Facebook)
Photo Contest and Exhibits (see p. A-15)
Planning Commission meetings/public review
Newspaper Articles

Third Street Corridor sub-area plan
On-campus visual preference surveys (NMU)
Charrettes (interactive design studio, 4 days)
Mailers and flyers (invitations to charrettes)
Newspapers articles (about Plan/charrettes, four)
Radio interview (about Plan/charrettes)

Waterfront-use
Public listening sessions (two)

Climate Change Adaptation Planning
Facilitated Workshops (three)
Planning Commission presentation



Master Plan Visioning Workshop at the Commons

Community Visioning Process

To begin collaborating with the public on updating the Community Master Plan, the Planning Commission established a process in which three workshops were held to identify key visions held by community members, and community planning priorities based on those visions, augmented by a public survey, and refined by two additional workshops to define a vision for the four key "themes" (and relevant topics) that emerged. A vision statement was defined through a final workshop process.

WORKSHOP ONE - MAY 31, 2012 AT THE CITIZEN'S FORUM

Two small groups were formed at the outset of the workshop and each listed its ideas for a half-hour and then voted for the top priorities from only its group. The top 12 priorities of each small group were then *combined* and the large group again voted on the Top 5 issues from the combined list. These are the results of the large group voting.

Vote-prioritized Top 5 Individual Issue Selections of *Large Group* (number of votes):

1. Promote policies to support local food (8)
2. Health promotion (6)
2. Neighborhood schools (6)
2. Heartwood forestland preservation (6)
2. Compact Urban Development (6)
3. Marquette as a model of energy efficiency (5)
3. Urban agriculture (5)
4. Community quality of life (traffic, noise, appearance) (3)
5. Complete streets (2)
5. Vehicle-free zones (2)

WORKSHOP TWO - JUNE 4, 2012 AT THE COMMONS

Two small groups of 10 persons each were formed, and both listed its priorities for a half-hour and then voted for the top priorities (of all priorities combined).

Vote-prioritized Top 5 Issue Selections of *Large Group* (number of votes):

1. Increase density, no urban sprawl (16)
2. Marquette as a model for sustainable development on the Great Lakes (14)
3. Clean, local energy; water quality; green building; urban ag.; regional initiatives leadership; Plan for community sustainability and health (9)
4. Walkable community with many transport options (8)
4. Housing equity, provide housing opps. for all (8)
4. Promote open source (digital) government (8)
4. Keep business local (incl. local purchasing policies) (8)
4. Identify and support local food production initiatives (8)
5. Energy sources should be clean (7)
5. Arts and Culture (7)
5. Urban agriculture with animal husbandry (7)

WORKSHOP THREE | JUNE 7, 2012 AT THE COMMONS

Three small groups of 9-10 persons each were formed, and they performed the same exercise as the groups in workshop two (above). Table A-1, below, includes all issues which received more than 5 votes.

Table A-1: Prioritized Visioning Concerns for City of Marquette Planning

Workshop Three: Top Five Individual Selections of Large Group (Prioritized by Votes)		
1	Waterfront preservation and public access	(25)
2	Research, promote, and preserve transportation options other than auto: air, rail, trolley, water	(13)
3	Improve winter maintenance for walk-ability - with codes to support	(11)
4	Maintain and develop public access to natural resources/lakeshore	(10)
5	Promote renewable energy options in community at scale-able sizes	(9)
5	Consider planning for retraction and adaptation/collapse - infrastructure, food, energy, economy	(9)
Other issues with 5 or more votes, in rank order:		
Maintain community identity/uniqueness		(8)
Safe Routes to School / walkability / complete streets		(8)
Pedestrian/bike friendly multi-modal transportation		(8)
Wise stewardship of future revenue sources - Duke Lifepoint - through strategic planning		(8)
Transit loop in city		(7)
Promote low-impact development techniques		(7)
Maintain parks/public space		(7)
Urban food production including animal husbandry		(7)
Support aging in place initiatives including medical care		(6)
Sidewalk construction to fill gaps		(6)
Quality of life initiatives, including arts, music, family-friendly venues		(6)
Maintain public access to Lake Superior		(5)
Consider a committee to address strategic/economic development		(5)
Public education- neighborhood schools, funding		(5)
Allow accessory dwelling units - "granny flats"		(5)

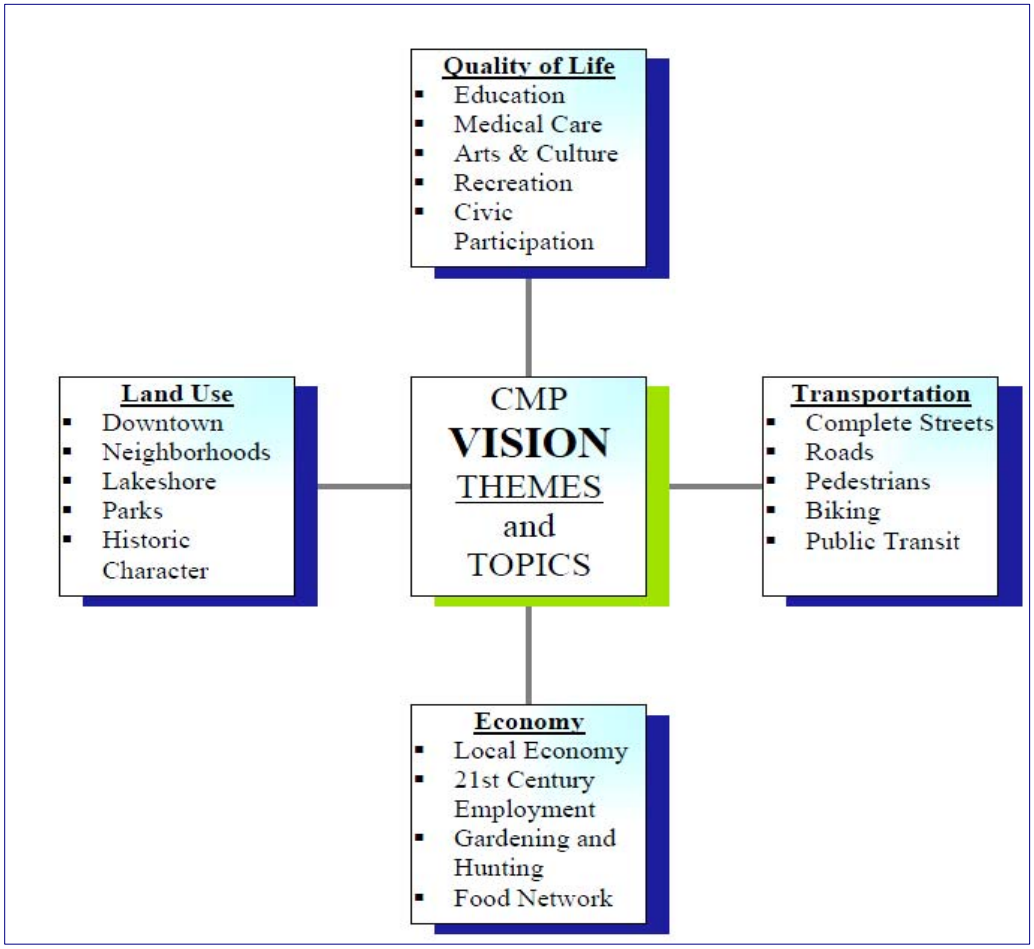
These lists show the most common concerns expressed, but they are not the complete record of voting and recommendations made at the visioning workshops. The Planning Commission reviewed all of the votes cast on the recommended priorities, and supported by data from the public survey, created a prioritized list of "themes and topics" that represent the issues which rose to the top as the major community priorities expressed throughout the visioning



Master Plan Visioning Workshop at the Commons

workshops. From this list of priorities, the Planning Commission grouped priority topics into four "themes," with the sub-categories listed as topics. The graphic in Figure A-1 was developed to portray these community priorities for the vision of a better Marquette.

Figure A-1: Community Vision - Themes and Topics



Two workshops were held in early fall of 2012 to develop value statements, precursors to a vision statement, for these themes and topics. One workshop considered the land use and transportation topics, the other considered the economy and quality of life topics. Small groups concurrently developed statements at each meeting.

TRANSPORTATION - VISION STATEMENTS

Group 1) The City of Marquette shall bring about several safe, sheltered and marked public transit stops with posted schedules in high-use areas, and offer expanded hours of service and public education regarding service and stops.

Group 2) Marquette will plan for safe, multi-modal transportation that balances the needs of work and play while conserving natural features. The safety of the most vulnerable transportation system users - pedestrians and cyclists - will be emphasized.

LAND USE - VISION STATEMENTS

Group 1) Marquette shall preserve neighborhoods, historic areas, and Lake Superior viewsheds, and revitalize older structures. Providing universal access to the existing and future built environment should be enforceable by ordinance.

Group 2) Marquette will thrive by preserving established neighborhoods and historic buildings, and conserving waterfront property and natural features along waterways. Mixed-use and compact downtown development should be emphasized.

QUALITY OF LIFE - VISION STATEMENTS

Group 1) The City of Marquette will establish and maintain a vibrant, active community that is accessible to everyone and interpreted for residents and visitors alike.

Group 2) Marquette is and will be a culturally rich, networking, forward thinking community that is inclusive to all ages and abilities. The Marquette community will continue to value the opportunities of its natural assets while nurturing strong participation in all aspects of its community.

Group 3) Marquette will foster a forward-thinking community open to all ages, financial standing, and abilities in order to promote an active and culturally-rooted, self-sufficient lifestyle.

Group 4) Marquette will maintain award-winning quality of life through continuous improvement in education, health care, civic engagement, arts and culture, and recreation.

ECONOMY - VISION STATEMENTS

Group 1) Marquette will create a climate that supports and nurtures a more green economy that promotes partnerships and uses incentives to boost our local economy, while keeping in mind how we attract tourists and use our own expertise for advancement.

Group 2) Marquette will continue to strive to be a destination city that incorporates specialty products and talents, and works to be an educated work force that encourages vibrant entrepreneurship.

Group 3) Marquette is supportive of vibrant, local food economy, rooted in policies that support incentivizing the purchasing and utilization of local and sustainable goods and services using a triple-bottom line (people, planet, profit) decision process.

Group 4) Marquette will protect its natural assets and amenities, particularly Lake Superior and it's climate. And it will strengthen its position as a hub for regional food production and distribution and other business transactions, and work to become a world-class tourist destination.

With the preceding input having been received and recorded, the Planning Commission scheduled one final public workshop in the fall of 2012 to attempt to finalize a vision statement and accompanying goals. That workshop was held on October 23rd, and it included a display of photographs selected from the photo contest that was held during the spring and summer of 2014 (see p. A-15). The following Vision Statement and the accompanying set of initiatives was developed by debate and consensus among the meeting participants and Planning Commission.

Vision Statement

The City of Marquette is the Superior location to live, learn, work, and enjoy life.

Marquette achieves this through the following initiatives:

- Fostering a forward-thinking community that is inclusive to people of all ages, abilities and financial status.
- Improving quality of life through continuing improvement in education, health care, civic engagement, employment opportunities, arts and culture, and recreation.
- Nurturing strong participation in all aspects of its community.
- Protecting its natural assets and amenities, particularly Lake Superior and it's four-season climate.
- Nurturing a "green" economy, promoting partnerships and entrepreneurship, maximizing local talent and goods.
- Strengthening its position as a hub for regional food production/distribution and other business transactions.
- Improving continuously on its status as a unique tourist destination.
- Maintaining a safe, multi-modal transportation system that balances the needs of work and play while conserving natural features.
- Emphasizing the safety of the most vulnerable transportation system users - pedestrians and cyclists – is prioritized.
- Implementing a downtown transit route with several sheltered, marked stops facilitates car-free travel and reducing parking demand in the City's commercial center.
- Preserving neighborhoods, historic areas, and Lake Superior viewsheds; and conserving undeveloped land, public space, waterfront property and natural features along inland waterways.
- Emphasizing mixed-use and compact downtown development.
- Providing universal access to the built environment through ordinance requirements.
- Valuing the opportunities of its natural assets.
- Interpreting Marquette for residents and visitors, through various means such as signs, plaques, and QR codes.

The development of the Vision Statement and goals involved extensive collaboration between the Planning Commission and members of the public, during the summer and fall of 2012. The process is explained in Appendix A-Public Involvement. The goals are to be achieved through recommendations which have been developed for each Chapter of the Factbook portion of the Plan, and which are summarized in the following section.

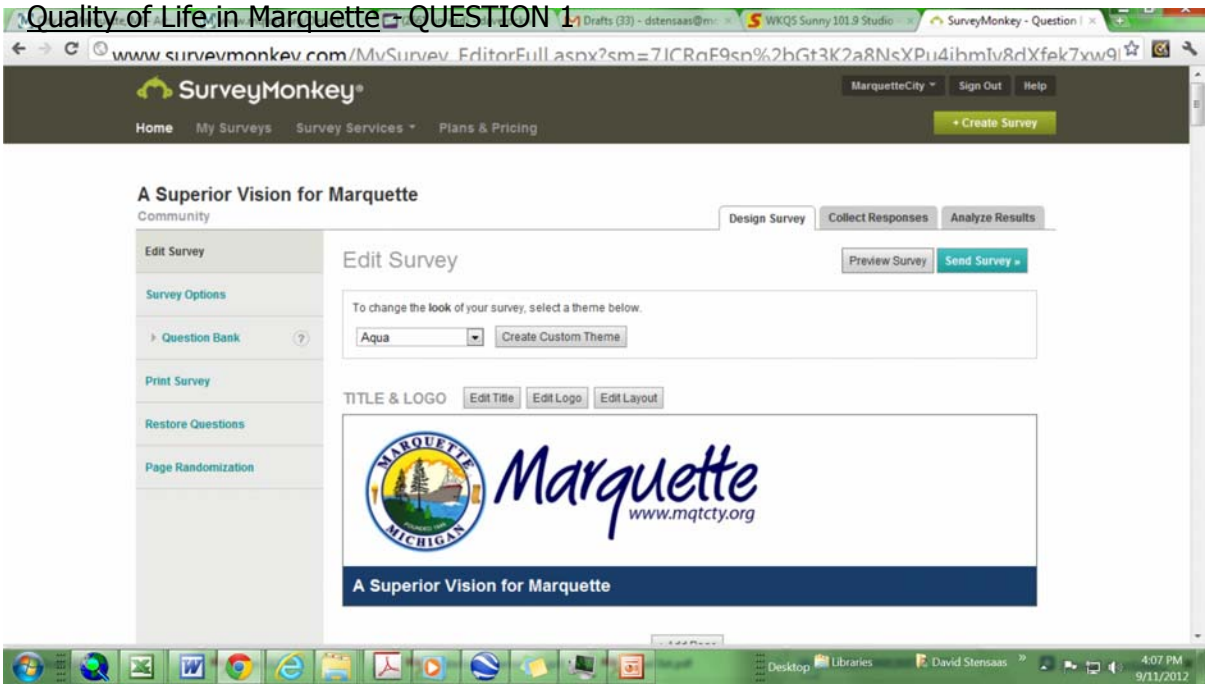
PUBLIC SURVEY

To augment the public workshop process and to collect as much input as possible to guide the visioning process, the Planning Commission and staff also created a community survey to obtain more information on how residents view the city and its changes during the past ten years and to see what future actions the public would like to see taken to improve the city. The survey results were presented to workshop participants in September and October of 2012, who were then tasked with developing vision statements for the four themes of quality of life, land use, transportation, and economy. The number of responses varied from a high of 466 on question #1 to a low of 341 on question #9. While this rate of response was lower than five percent of the year-round city population, it was adequate to provide a snapshot of public opinion to compare with input from public workshops. The Planning Commission believes that this survey was helpful and did support many of the opinions that were offered in the workshops, and that it also provided some general feedback which would be helpful in drafting the updates to the Community Master Plan.

Survey Methodology, Sample Selection and Results

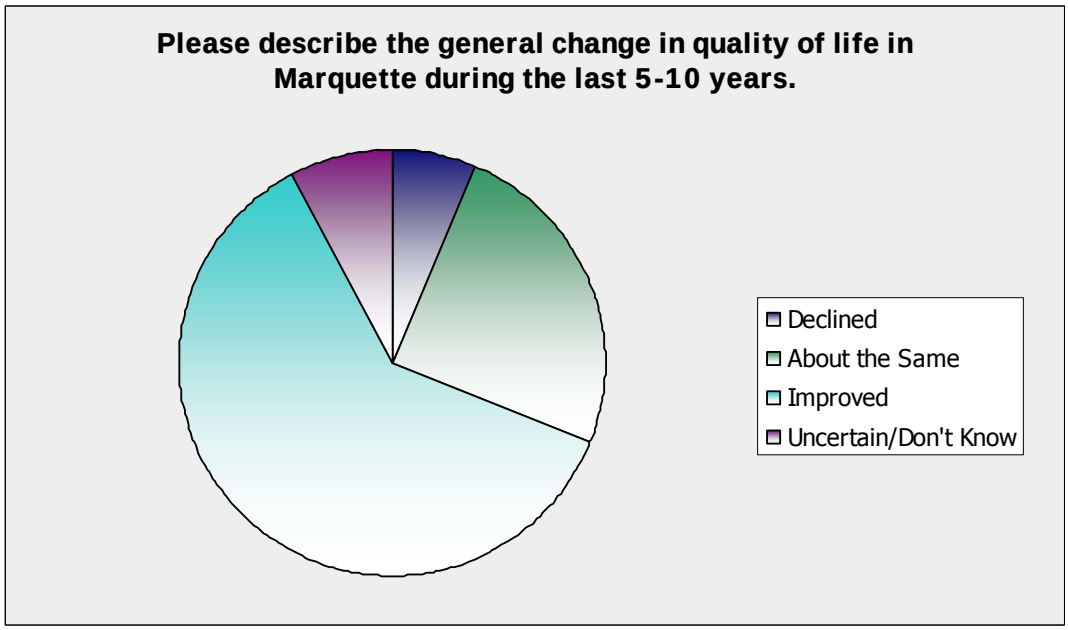
This survey was created online through *Survey Monkey*, which allowed staff to design the survey format and then provide a link to the survey through the City website's main "landing page." A link to the webpage was provided during public presentations about the Master Plan update during the spring and summer of 2012, and sent in e-mail messages to persons who had participated in other such City endeavors. Through a process of self-selection, community members took the survey, which consisted of both direct and open-ended questions. An example of the survey layout and questions follows below, along with graphs and tables that provide basic analysis of the survey results.

Quality of Life in Marquette - QUESTION 1



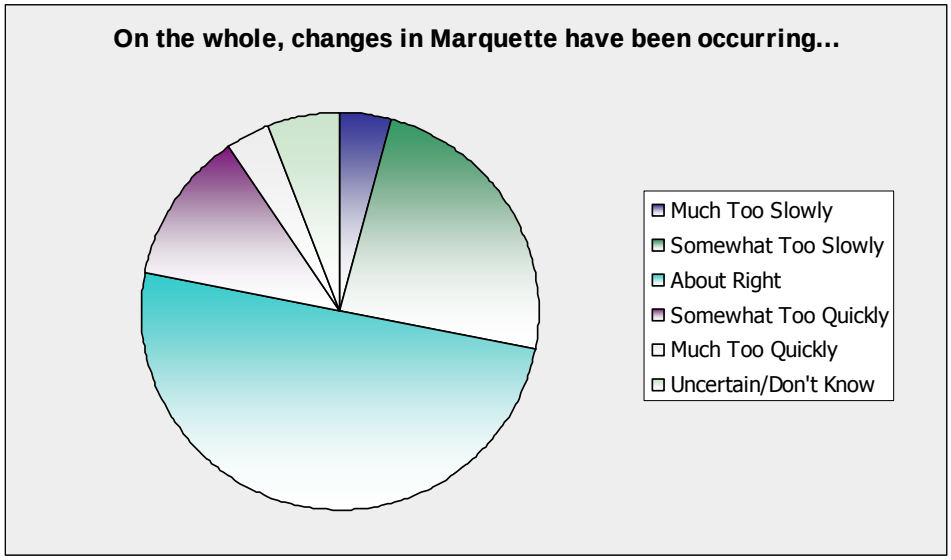
Example of the survey webpage

When asked to describe the general change in quality of life in Marquette during the past 5-10 years, the majority of respondents (61.2%) stated life had improved, 6.5% said it declined and 24.5% answered it stayed about the same. An additional 7.7% of respondents were uncertain. There were 412 responses to this question at the time of this analysis.

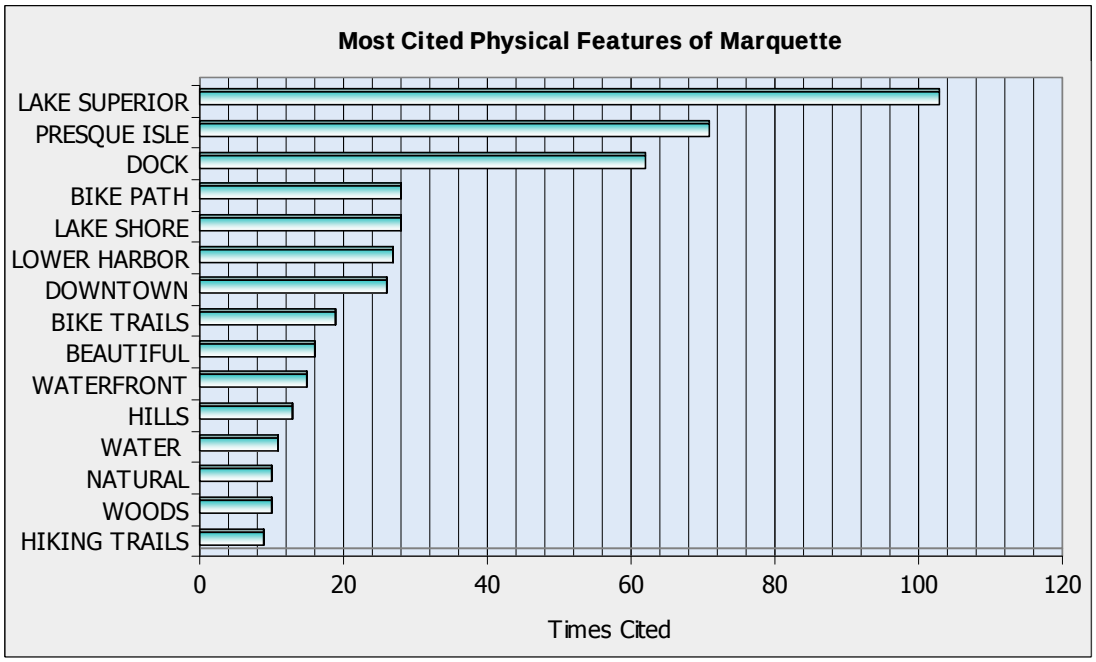


Timeframe of City Changes - QUESTION 2

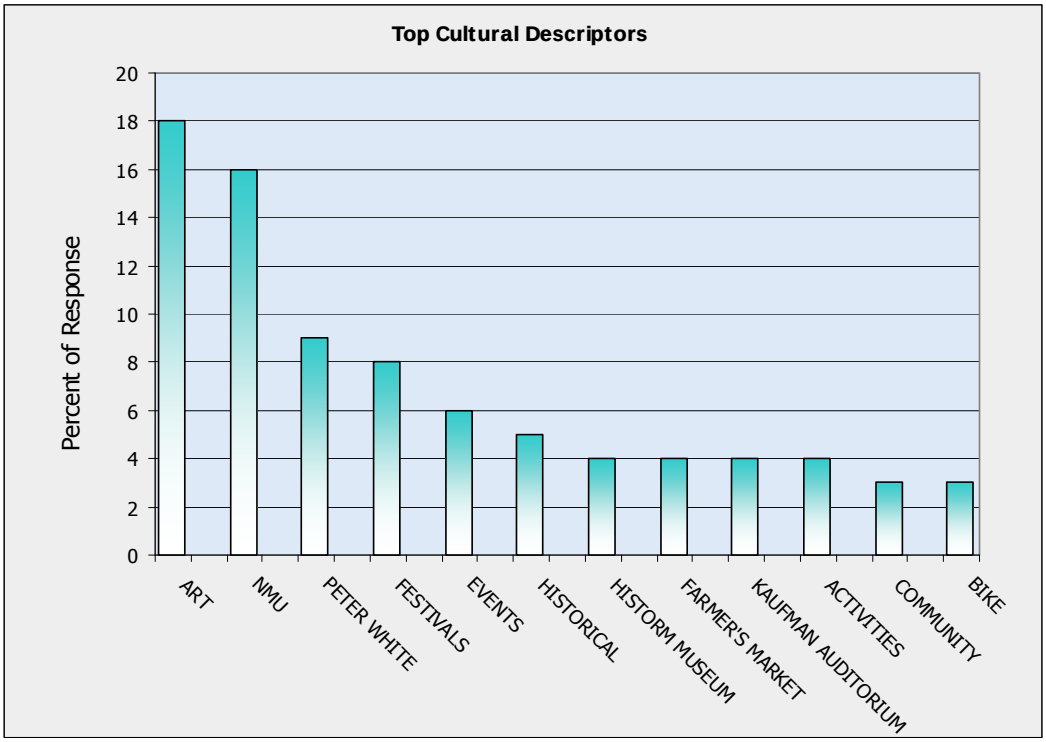
The next question addressed the speed at which change occurs in Marquette, providing a spectrum from "much too slowly" to "much too quickly". 50% of respondents answered that change occurred at a pace that was "about right", while 23.8% replied somewhat too slowly and 12.5% answered somewhat too quickly. 4.2% of respondents stated change occurs much too slowly and 3.8% asserted it occurs much too quickly. And 5.7% of respondents were uncertain.



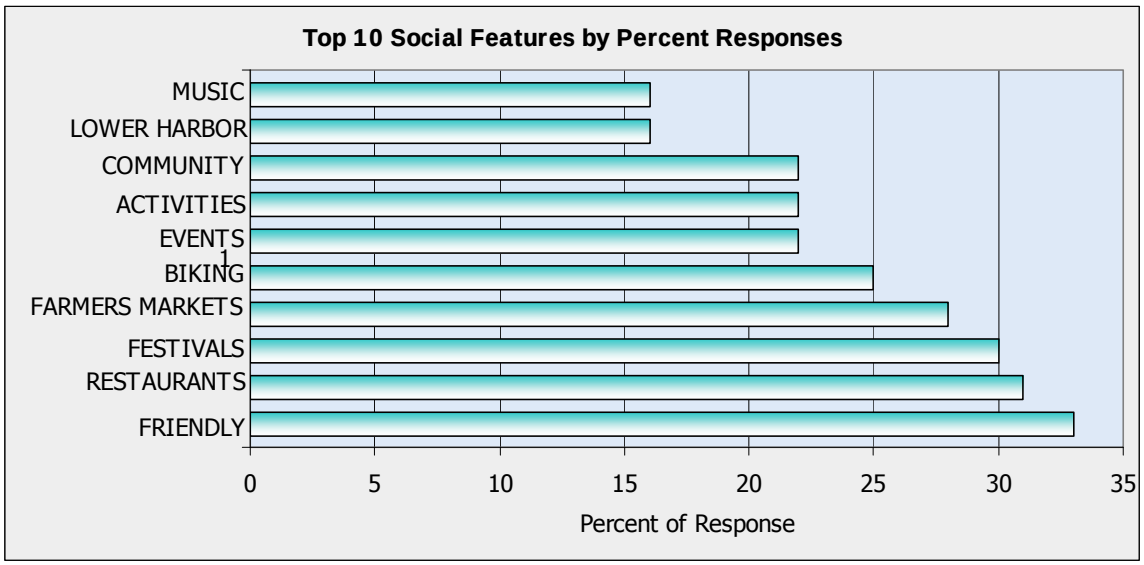
Physical, Cultural and Social Features associated with Marquette - QUESTION 3
This question prompted respondents to provide their own answers when asked what physical, cultural and social features they identify with Marquette. See the following three graphs for the results.



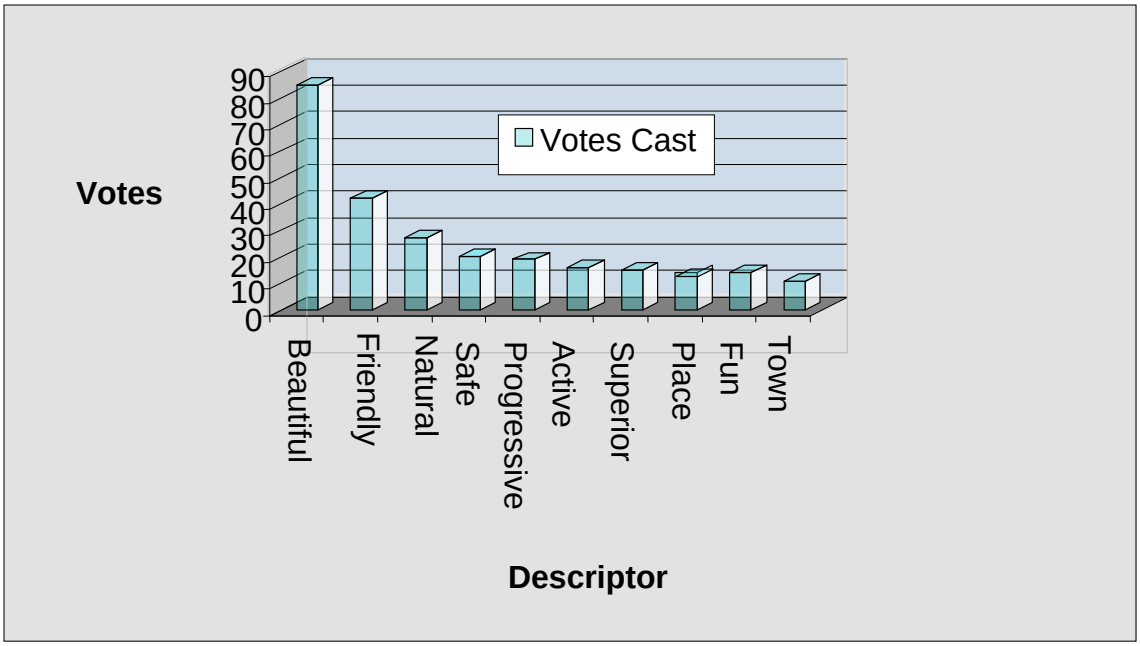
These are the top ten cultural features and the percentages of responses in which these keywords appeared.



Below, the top ten social features and accompanying response percentages are graphed.



Description of Marquette - QUESTION 4
Respondents were asked to describe Marquette in three words or less. 81.3% of respondents contributed an answer to the question, bringing in 348 responses. Most commonly used words included "beautiful", "friendly" and "natural".



Positive and Negative Changes to Marquette - QUESTIONS 5 and 6

To discover what changes served as most successful with positive community reception, this question invited respondents to describe the changes that they liked the most. Bringing in 379 responses, 81.3% of survey takers (out of 466 that answered Question 1) provided input. The chart at right below shows the most cited words for positive changes, along with the percentage of responses that included those words. The chart at left shows the most cited words for negative changes to the City. The most positively received changes have been along downtown, the bike paths and trail networks. The most negatively received changes include the lake, condo construction and Founders Landing. Development of the shore in downtown has had mixed reviews, and this provides more evidence of that.

NEGATIVE KEYWORDS	PERCENT
Lake	13%
Condos	10%
Founders Landing	10%
Development	9%
Businesses	4%
Traffic	4%
Marquette	3%
Road	3%
Parking	3%
Property	3%

POSITIVE KEYWORDS	PERCENT
Downtown	17%
Bike Paths	15%
Trails	8%
Water Front	7%
Lake Shore	5%
Farmers Market	5%
Founders Landing	5%
Local	5%
Increased	4%
Restaurants	4%

Reasons for Presence in Marquette - QUESTION 7

This question inquired into why respondents reside or conduct business in Marquette. It solicited 372 responses. The following chart identifies how often common words showed up in various responses, the percentages indicating the total answers in which the word occurred. Overall it appears that the responses were positive or neutral, and not negative.

KEYWORDS	PERCENT
Live	13%
Love	11%
Place	11%
Marquette	10%
Family	10%
Community	8%
Beautiful	7%
Natural	4%
Business	4%
Job	3%

Most Desired Accomplishment Within Next Twenty Years - QUESTION 8
Respondents were also asked what would be one thing they would like to see accomplished in Marquette within the next 20 years. 372 survey takers responded, indicating about an 82.4% response rate to this question. Commonly employed words included "development", "improve", "business", "community" and "jobs", the main categories being physical improvement, business growth and job development. The chart to the right illustrates the number of times the most commonly used words appeared in answers.

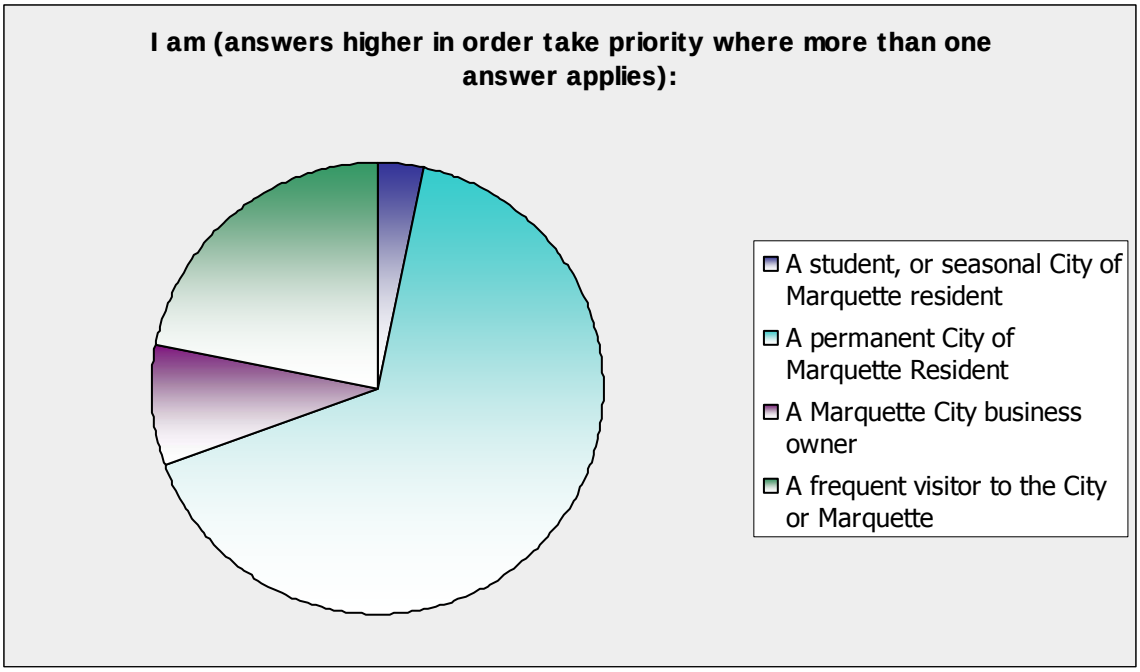


Main Concern for City Government to Affect - QUESTION 9
Leading off of the previous question, the next question asked what are the main concerns that they think the City government can affect in the future. This question obtained 341 responses. Once again, these responses demonstrate concern over economic development, with the use of "development", "business" and "taxes" ranking in the top four words.

FUTURE DEVELOPMENT	PERCENT
Development	9%
Business	9%
Marquette	7%
Taxes	5%
Public	5%
Growth	5%
Water	3%
Natural	3%
Zoning	3%

Self-Identification of Respondents - QUESTION 10

The final question required respondents to self-identify as a permanent Marquette resident, a student or seasonal City of Marquette resident, A Marquette City business owner, a frequent visitor to the City or other. The majority of respondents (66.2%) were permanent residents while 22.1% were frequent visitors to the city. Only 8.6% replied business owner and even less identified as a student or seasonal resident (3.2%).





Participants in the first visioning workshop work in small groups at the Citizens Forum. May 2012.

Shown below is the paper handout version of the same survey:

A Superior Vision for Marquette ❋ Community Master Plan Update

Opinion Survey/Questionnaire

www.mqtcty.org/vision

Lend your voice to the City of Marquette Community Master Plan!
The survey is also available online at the internet address listed above in blue.

1. Please describe the general change in **quality of life** in Marquette during the last 5-10 years (circle one):

Improved - Remained the Same - Declined - Not Sure/No opinion

2. On the whole, **changes** in Marquette have been occurring (circle one):

Too quickly - About Right - Too slowly - Not Sure/No opinion

3. Please list some physical, cultural, and social features that you identify with Marquette.
   - Physical features:
   - Cultural features:
   - Social features:

4. In three words or less, describe the City of Marquette:

5. A. What has changed within the city in the past 5-10 years that you like the most?

   B. What has changed within the city in that same time that you dislike most?

6. Why do you reside or conduct business in Marquette?

7. What one thing would you most like to see accomplished in Marquette within 20 years?

8. What are your main concerns that you think the City government can affect in the future?

I am (please check only one; first answers take priority where more than one answer applies):
A student, or seasonal City of Marquette resident__ ; A permanent City of Marquette resident__ ;
A Marquette business owner__ ; A frequent visitor to Marquette __ ; Other __ _____

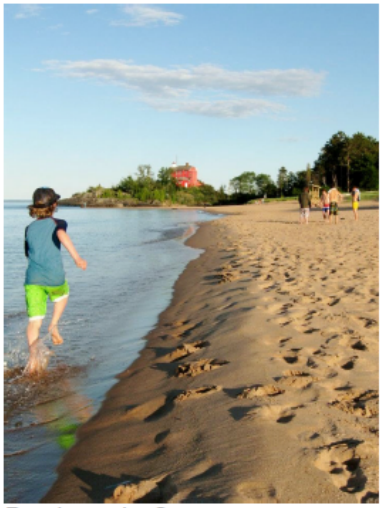
THANK YOU!

City of Marquette Planning Commission ❋ May 2012

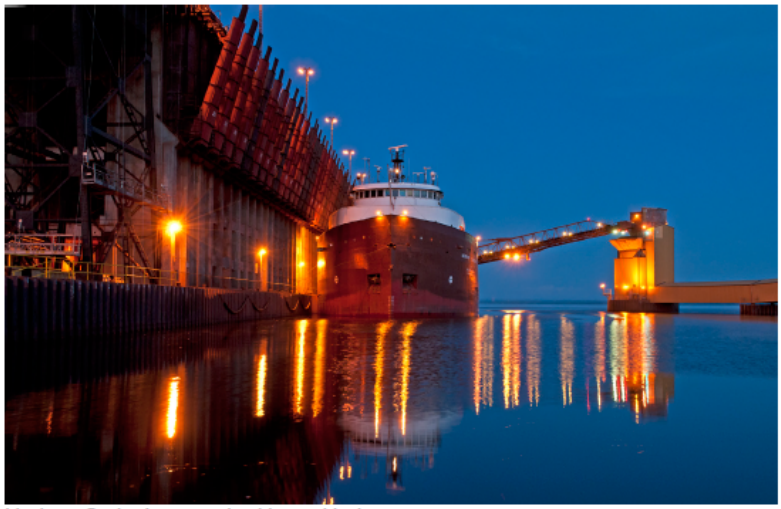
To increase interest in the visioning process and the overall Master Plan update, a photo contest was held during the spring and summer of 2014.

These ten photos were selected by judges from the Marquette City Planning Commission as best meeting the criteria of the "A Vision for Marquette" photo contest that was conducted during May-July 2012. The ten selected photos were displayed in the main corridor of City Hall in August 2012, at the Peter White Library in September, and finally at the final visioning session for the Community Master Plan (Oct. 23, 2012), which also included an artists reception.





Running to the Cove,
By Davey Rockwood.
All rights reserved.



Herbert C. Jackson at the Upper Harbor.
By Denny Beck. All rights reserved.



Looking North from Lighthouse Rock.
By Cynthia DePetro. All rights reserved.



Presque Isle Light Storm.
By Jerry Emlich. All rights reserved.



Storm Cove
By Cynthia DePetro. All rights reserved.



Wading Among Big Rocks, Skipping Small Ones.
By Denny Beck. All rights reserved.



Lower Harbor Lights.
By Jerry Emlich. All rights reserved.



Aerial View to Northwest from Lower Harbor.
By Cynthia DePetro. All rights reserved.



Pride in Marquette (Pride of Baltimore).
By Mike Hainstock. All rights reserved.



Marquette County Courthouse.
By Denny Beck. All rights reserved.

The City was also able to obtain permission to copy and frame these photos for use in City Hall, and staff would again like to thank the photographers for their generous contributions to this planning process and to making our community space in City Hall more attractive. Thank you Denny Beck, Cynthia DePetro, Jerry Emlich, Mike Hainstock, and Davey Rockwood.

Waterfront Planning

A set of public listening sessions were held at the Presque Isle pavilion during June and July of 2012, to solicit opinions on use of Marquette's waterfront assets. The resulting minutes (see below) from these sessions were reviewed by the Planning Commission.

WATERFRONT USAGE PLANNING LISTENING SESSION #1
Tuesday, June 26, 2012 - Presque Isle Pavilion

Each group was given an opportunity to present how they use the waterfront, as well as to discuss the location of usage and their concerns for the future of the waterfront.

Arts & Culture Committee – Diane Jarvi
The committee is not currently using the waterfront, but wants to tap into ways to integrate Arts & Culture into the public waterfront. Some suggestions include: temporary sculptures along bike path, light installations on the ore dock. Discussed utilizing and taking more advantage of the waterfront and getting the public involved.

Brownfield Redevelopment Authority – Carol Vining Moore
The group has several projects in the works. The area formerly known as "bums jungle" has been developed with condos, hotel, boardwalk. The goal is to keep the waterfront area open and "visible" to the public and to protect the lakeshore. BRA through its efforts has worked to increase the tax dollars in the city and bring people into the city.

- *Cliffs Dow Site* – Toxic Site – don't know when will be able to do anything due to concerns about moving Lakeshore Blvd and how much toxicity would be pushed to the lake.
- *West Side Lakeshore Blvd (Old gas station site*) – Possible future Brownfield site
- Keep lakeshore open to the public –

Chocolay Township – Kelly Drake Woodward
The use of the waterfront in Chocolay Twp. is mainly residential. There are 2 scenic turnouts with public access, the Welcome Center, Hiawatha Water Trail, and Chocolay Marina, which has kayak lockers and tent pads. They want to expand the use of those lockers and tent pads. These areas are close to the bike path, which is used for recreation, commuting and increased connections to other local areas. The Rowing Club utilizes the area between the Cinder Pond Marina and the Welcome Center, including the sewer treatment plant.

Coaster II - Niko Economides
Coaster II is the flagship for the City of Marquette. It is a 80 year old schooner and is registered as a National Historic Vessel. The vessel is docked at Cinder Pond Marina on the bulkhead. They sail generally for 2 hr trips either on the northside or southside of the rocks to cruise by the lighthouse. They offer a tour of Marquette from the water, and also conduct youth group sails. They tell stories of the area, historical facts, and iron ore days stories. The Coaster II is delighted to represent the Marquette area not only in the city, but at other locations they visit as they travel the Great Lakes Water Region. They conduct weather studies, wave heights, wind direction, wind speed, fog, and currents at Picnic Rocks with NOAA. There is a lot of potential to do more.

Downtown Development Authority - Bill Hetrick, chair
DDA started in the 1970's. The mantra of the DDA is "with staff, partner with public and private". Develop a parking structure to house parking along the lakeshore. Team with the Brownfield authority to utilize area around the south portion of the north part of Founders Landing and the north point of Mattson Park.

Parks and Recreation Advisory Board – Lyyn Laakso
Key issues – public spaces along the shore need to be preserved, outline the needs at Presque Isle park. As outlined in the 5 Year Parks & Rec Master Plan: protect and preserve environment, preserve historic sites, and take care of what we already have. The City of Marquette attracts from the outside due to the picnic areas, beaches, waterfront parks, multi-use path. PRAB would like to see more development regarding kayaking and canoeing, such as lockers, etc. A question was posed "has idea of extended the bike path around the island ever been proposed?" Answer: There are conditions of use for the 2/3 north portion of the island that it not be developed. There are also erosion concerns that limits the west and north sides.Looking at Capital improvement projects: restroom upgrades at Mattson Park and McCarty's Cove, beaches, playgrounds.

Harbor Advisory Committee – Bob Frazee
The main purpose of HAC is to advise city of harbor development, focus on water usage. HAC is working on incorporating non-motorized water usage.
Presque Isle Marina: revised the 5 year plan for improvement and/or to fix structural problems, including dredging, boat launch, parking lot, and replace failing piers. PIM is a very desirable fishing area for the community.
Cinder Pond Marina: keep the marina maintained structurally. The bulkhead is used for commercial craft such as, Coaster II, DNR Lake Char, and Mqt Harbor Cruises. Would like to see more commercial use at Cinder Pond.
Founders Landing: engineering study, currently no concrete long term plans, maybe expand to include non-motorized usage in the future.
Mooring Field: working obtaining mooring anchors that will be required in the future to utilize the mooring field, regulate area, establish rates, and establish what type of moorings to be used.
Pilings: agree with state for use of pilings performance bond to do something with the pilings or remove. Incorporate into brownfield plan.

Hiawatha Water Trail – Sam Rowley
The water trail is 120 miles. It is to provide access to the lake and to provide information to kayak, canoe, and all paddlers. The reason for the trail is that the coast development precluded paddler access to water. The HWT provides a trail map that outlines lauches into the water. The launches within the City of Marquette are Presque Isle Marina, Presque Isle Pavilion beach area, Picnic rocks, McCarty Cove, Cinder Pond marina, South Beach, and Chocolay Marina (which provides kayak lockers). HWT emphasized the advantage of having boat lockers at launch locations. These lockers provide a place for people to secure their boat so they can utilize the local businesses etc.

YMCA – Sam Rowley
Has a paddle program for youth/adults that promote healthy active lifestyles, and educate on how to be safe on the water. Has received grants from Mqt Co. Community Foundation and Kellogg Foundation. There have been donations of 30 boats and a trailer for inland and Lake Superior use. The program explores the Lake Superior shoreline from the water, and utilizes various launch sites such as Middle Island Point.

Landing Development Group – Joe Constance – Barry Polzin
Through the Brownfield redevelopment group, Founders Landing parcel 3 hotel development is complete and still has ample public waterfront. The condos in this area have "activity views". The group has seen this area in Marquette evolve from an industrial area to recreational and residential and from eye sores to a beautiful waterfront. The city will capture 100% tax from the hotel to be opened July 8, 2012. Brownfield makes development possible. Founders Landing Wood Pilings: Follow 3-phase development proposal. Deck the pilings, create a break wall, create a fully accessible fishing as this area has deep water. The group is looking at patterns and development of "beach communities". These are dense neighborhoods along streets that border the waterfront, and feels that Marquette has the potential for some small scale housing.

Marquette Yacht Club – Bob Frak
The club has 40 members, has been in existence for 100 years and has been at their current location for 30 years. The club has 30,000 sq ft. and borders the bike path and the Lower Harbor area. It has racks for kayaks, and sailboats. Provides dockage (based on availability) for members. This is private property, however, by zoning and code they cannot indicate that it is private property. The groups that utilize the club are the rowers, sailing group, and the ensign fleet. The history of the property is that it was not a desirable location, but through landscaping and upgrading the building it has become more visible and a desirable location. Would like to be involved in the master plan.

Mqt Area Wastewater Treatment Advisory Board – Curt Goodman
To maintain the current excellent water quality, including the 2000 Beach Act funding to monitor beaches. They have an excellent record of water quality. As outlined in the 2002 Storm water master plan, currently working with the superintendent of the water plant to identify problem stormwater outlets: Hawley St., Crescent, Orianna Ridge, and is trying to secure funding through a grant to improve the Lakeview Arena storm water outlet area. Also, working with the Superior Watershed to improve storm water.

Moosewood Nature Center – Niko Economides
The center is located on Presque Isle. They are working on a project for the restoration of the Shiras Pool to make it a pond. They want to get more people involved with hands on projects utilizing the outdoors. The center is also a "hub" for bird information, and are concerned with the development as is relates to bird habitat.

Michigan Department of Natural Resources – Jim Knape
Fisheries: The DNR monitors fish populations using a research vessel (the Lake Char) that is docked at the Cinder Pond Marina bulkhead, and it is a perfect spot for research vessels.

Planning Commission – Steve Lawry
Concern regarding the waterfront from a planning perspective: must look at history of water level changes and any waterfront development that is done must be compatible with high and low lake levels, as water quality is affected by elevation. Need to consider more than just Lake Superior, including Tourist Park waterfront, Carp River, and Dead River. Must also consider large lakefront property owners regarding any waterfront planning.

Presque Isle Park Advisory Committee – Bob Chapman
The group is working on: steps to improve safely of the shoreline on the island, replacing chairs and tables at PI Pavilion; benches at the bandshell. Concerns: the sedimentary rock by breakwall and on the eastside. Erosion control: 1st phase paid by a grant….it is very expensive

Fish Dock – Mona Scriba
The fish dock is privately owned and operated and all lease bottomlands. It is located behind Thill's Fish house. It has been in existence for 100 years and was originally a commercial fishing dock, which was purchased from the railroad. They get a lot of tourist traffic and point out a lot of local attractions to the tourists. They are glad the city is intent on keeping the waterfront publicly accessible.

UP Community Rowing – Daryl & Sally Davis
Established in 2004, a 501C# organization, 75 adult 20 youth members this summer. Rent property from the City of Marquette in the Founders Landing area to store their boats during the summer. The boats are stored outside in the summer and would like to find inside storage in the future as the boats are exposed to the weather and possible other types of damage. This type of storage is very expensive. The group needs calm water to row, and typically rows into the lower harbor or to the Welcome Center.

Waterfront Safety Task Force – Bob Frak
Task force established August 2010 and charged with in-depth exploration of the four tenets of waterfront safety. The task force has established safety zones, safety stations, flag system for those areas. They have given water safety brochures to all hotels, community partners involved in water safety. Focus is to establish areas that are unsafe to swim. Have hopes of adding a lifeguard stand at McCarty's cove and south beach. Adding a gate at Presque Isle. Weather stations could be implemented and installed in various areas along the shore. There is a GLOS meter, that monitors rip and channel currents, currently intalled at Picnic Rocks. This is a 3 yr study, and readings can be found on the city website. Indicated that some weather can be kept at the water plant. The weather station at the Coast Guard station is not adequate, it is covered by trees. Tourist Park will be a guarded beach when complete.

WE Energies – David Dionne
Monitor shipping lanes and leakage out of pipeline systems. Dredging – DNR will be responsible for any dredging and We doesn't see any need from their perspective. They have retired the units in the location known as the "hot ponds"
National Scenic Trail
This is a trail that is 4600 miles and is the longest trail in the country. Marquette has one of the nicest urban portions of the trail that extends from Hawley St. to the Welcome Center. Want to start a "Trail Town Program" in the area. Expressed wanting to keep bike path along the lakeshore.

Marquette Access Group – David Boyd
Where people promote universal access design and enjoy safety and comfort for all in the environment. Asks that people with disabilities be considered in the planning of usage of the waterfront. Not to work with minimum standards, try to think outside the box. Suggests consideration be given to universal access.

E-mail received by City Planner 7-20-12:

Hello, I read about your shoreline meetings in the Mining journal today and while I cannot attend one I would like to make a suggestion. Most people do not have boats and there are many like me disabled that would like to fish. Marquette is about the only town in the UP that does not have lake superior fishing piers at the mouths of its rivers or any were else. The break wall is a place to fish but its not safe especially for a disabled person. The mouth of the Carp is dangerous because of the large rocks. The Ironic thing is that there are grants to build fishing piers and many other UP towns have gotten grants to do so. Thank you. - Ken Ceckiewicz, disabled veteran.

WATERFRONT USAGE PLANNING WORKSHOP #2
Wednesday, July 25, 2012
Presque Isle Pavilion

Each interest/group was given an opportunity to present how they use the waterfront as well as location of usage.

Negaunee Child Center - Diane Berg Hetrick
She expressed concerns regarding safety for pedestrian and user access to the beach along Lakeshore Blvd. The specific areas of concern are by the Biolife building along Lakeshore Blvd and parking or lack of parking in that area. She was inquiring as to why there used to be parking along the beach but it is no longer allowed. Concerns are regarding children safely getting to the beach from the areas that cars allowed to park. It is very dangerous for children to cross the road in those areas to access the beach because of the lack of parking in that area. Suggested having some type of "user access" designated areas. Other suggestions were to have signs on how to get to the beach if they are walking or running, provide some kind of transportation options from the parking lots to the beaches, for example, paddle taxis.

Fish Dock – Mona Scriba
Mona suggested that the city looks 50-100 years in the future regarding shoreline development, setting aside land for future development, climate changes and how that

could possibly increase population in northern cooler regions, such as the Upper Peninsula. She promotes keeping as much public access to the waterfront as possible now and in the future, and "setting aside" land for parks, green space, etc. in the future as the waterfront is in higher demand and scarce and not allow development in those areas.

Gisele Duehring –potential Botanical Garden
Ms. Duehring presented ideas to transform the downtown Ore Dock into a botanical garden. She submitted a "rough draft" plan for what the structure would look like, as well as a document outlining the benefits of botanical gardens. The key ingredients for the garden would consist of plant seedlings, horticultural therapy, family sponsored areas within the garden, public hours, possible venue for music/ethnic festivals, possible sister city gardens, gift shops, wedding venue, educational opportunities for local schools. The next steps are to get community input, updated drawing of ore dock, and laser scan of building to figure out best space to place gardens, and form an advisory board or think tank. She also spoke of about a big bike ride around DC and California that helps raise funds for environmental causes like botanical gardens, possible grant funding, and possible Ford foundation grants.

Moosewood Nature Center – Andrew Bek, Director
Moosewood Nature Center is an outdoor education center. They are tenants of the city located on Presque Isle, so they are limited on what they can do. Their focus is on nature preservation and preservation of parks and green space etc. He spoke to the history of the road being put in and that wetlands were filled in. Mr. Bek spoke to the McClellan St. extension mitigation of over 2 acres of filled in wetland in process of being restored. The Moosewood has a bog walk, which is an interpretive trail. They also are in the process of slowly reverting the old Shiras pool back to wetlands. The Moosewood is also a "niche" of the peninsula when in comes to birds, and also is a monarch butterfly station. There is a lot of wildlife around the waterfront and is concerned about the long term health of Marquette's eco system. They would like to see enhancements brought in that would encourage even more wildlife to the area. The old shuffleboard and horseshoe courts have been repurposed into a community garden which demonstrates the mixed variety of uses of the island and the shoreline. The center also conducts a clean up of the beaches every year along the shoreline. The center is also concerned about the 2 invasive plant species that are taking over the shoreline. They are also concerned about the shoreline of the river to Tourist Park. They suggested for the city to contact the center in the fall when related conferences are attended or scheduled.

Presque Isle Concerned Citizens – Tim Hoeppner
The group spoke to the state of disrepair of Presque Isle Marina. Has indicated would be available to assist the City in any way this group can, in the process of repairing the marina in its current state. They would like to see this marina become a "premium marina". Presque Isle Marina is a very peaceful marina and therefore, very "desirable". The PICC group reported they, along with their families, utilizes a majority of the waterfront for boating, hiking, biking, swimming, etc., and that the waterfront brings in a lot of business to Marquette.

YMCA – Michelle Lokker
The YMCA runs a Kayak program that is grant funded and has donated kayaks. The program uses the launches at Presque Isle beach, marinas, and McCarty's cove. They teach groups and kids and adult's water safety and do water safety demos at Picnic Rocks where rip currents are known. The group is expanding and utilizing more of the waterfront areas to teach safety on our shores.

Karen Bacula
There is a need for interpretive signs along the lake. The signs need to have good general information regarding the lake and the shoreline.

Surfing Community – Joe Genovese
Mr. Genovese wanted to let the community know that there is a surfing community in Marquette. They utilize sunset point, McCarty's cove, picnic rocks, and south Marquette beach area. He said in the surfing community, it seems no matter where you go, people know Marquette. Marquette is known for the fact that you can surf and snowboard on the same day. It was suggested that getting information out to the surfing community would be beneficial to the community in many ways.

Liz Coyne
The city needs to protect the stormwater system because of how it affects and its potential affects on the lakeshore. She encouraged use of low impact development on the shoreline and to be aware of what impact any development has or will have on the shoreline in the future. The city should try to work with its citizens on how to improve stormwater savings. The stormwater that go into the lake should be clearly marked, along with more education regarding stormwater.
City response - The city is in the process of installing stormwater signs. The city is hoping to partner with the DNR for a possible grant that would allow for restructure of the stormwater system.

Sub-Plans

During the development of the Community Master Plan, between spring 2012 and summer 2013, a sub-area plan (including the major transit study summarized in Chapter 6) and an environmental study report were created that are included as appendices to this document:

1) the *Third Street Corridor Sustainable Development Plan*
2) the *Adaptation to Climate Change and Variability* Report

Both of the above projects involved a great deal of public input, with the Third Street Plan created through a charrette process (see the document for details), and the recommendations of the Climate Adaptation Report being determined by participants.



Climate Change Adaptation Plan Workshop - Feb. 2013

Community Master Plan (CMP) adoption

The adoption of the proposed CMP has both regulatory and non-regulatory public comment components. There are a number of public entities to which the Planning Commission is required by statute (Public Act 33 of 2008) to send a copy of the proposed CMP, and those entities have up to 42 days to submit comments back to the Planning Commission. Any comments received as a result of this required outreach will be printed in the table below, and/or attached following the Table A-2, with Planning Commission responses to the comments recorded next to the comment.

The Planning Commission has held work sessions regarding the CMP update at its regular meetings fairly consistently for the past two years, and at most meetings during 2014 and 2015. The Planning Commission held an Open House meeting on May 27, 2015 to make themselves and staff available to the public specifically to address the draft CMP. Five persons who attended that meeting submitted comments, which are shown as written below. Comments received outside of that meeting have been summarized to capture all the important points communicated. Comments from organizations are attached after Table A-2, with responses provided in the table.

Table A-2: Public Comments on Draft Master Plan

Commenter and date	Comment Received	Planning Commission Response
Lisa McBride 5/27/15	Living downtown for many years, walking, biking, and/or busing (Marq-tran) everywhere, recently I realized this college and family friendly town is lacking wastebaskets/garbage cans throughout much of the downtown business district. There seems to be much more "cans" within a few steps all along the bike path verses the main businesses/downtown streets. Perhaps some cans be removed from the bike path and placed in the downtown/business spots? There really are so many on the bike path! As a parent, and Marquette resident for many years, I hope this can be fixed/added into the plan as it is no fun to walk for blocks hoping to finally find one, and not everyone would want to keep looking/holding onto garbage. Secondly, with the weather up here there is a need (also considering kids) to have more small shelter/roof stands at Marquette bus pick-up or drop off spots. For so many reasons it would be ideal, helpful, and "the norm" to standard bus friendly, family friendly towns throughout the U.S.	Thank you for your participation. Your desire for a small-dog park will be forwarded to the Downtown Development Authority.
Sari Embly 5/27/15	Thank you for doing this! Very popular in other cities are small-dog parks. I would pay annually for year round access for a fenced in area. I suggest the fenced area near the Coast Guard Lighthouse; it has a parking lot, fence, lights, water sources, and bathroom near by. It would need benches and a gate, small and medium dogs would work in this smaller area. Thank you again for the open house.	Thank you for your participation. Your desire for a small-dog park will be forwarded to the Parks and Rec. Advisory Board and Community Services Dept. staff.

Rolf Swanson 5/27/15	I've been following things in Marquette for several years. I appreciate the emphasis on recreation, walkability, and green areas. The relocation of Lakeshore Boulevard makes a lot of sense; hope we can do it soon. Also, appreciate senior programming as I'm a young senior. Great planning effort.	Thank you for your participation. Mr. Swanson is a resident of the City most of the year.
M. Steindler 5/27/15	1) Increase protection of the lake shore against all developments that are not clearly for public use and access. 2) Increase effort to attract suitable industry to designated and attractive (to industry) areas. 3) Determine accurately why industry is not interested in existing, but un-used industrial/commercial sites. 4) Update your maps to show the old quarry and the residential units on its shore, including Sandstone and Rockwood Drives that seem to be missing from your maps.	Thank you for your participation. Industrial activity was shown in table 3.1 to be using far less than the allocated space zoned for it (table 3.2). This may reflect changing industrial and technological trends. We will have the Ch. 3 pull-out maps updated to show the private roads.
Teri Rockwood 5/27/15	I fully support the Draft Community Master Plan and commend all of the hard work staff have put into this important document. I love that Marquette has a vision for different methods of transportation that has focus on bicycles, pedestrians, and mass transit.	Thank you for your participation.
Ivan Stewart 6/02/15	I am a student at NMU. I would like to focus on housing and the idea of cooperatives. Cooperatives bring people together pushing forward toward s common goals. From what I have read in the current Master Plan a housing cooperative could be created in multi-family housing areas only. I would like to see cooperatives allowed in the new plan for all residential housing, including single family and general residential areas. As many are aware, large houses in Marquette are currently divided into multi-plex housing that houses multiple non-family members in zones that are written as single family or general zones. Cooperatives fall in line with this multi-family member housing, but in my opinion function as a single family. Cooperatives, by nature make decisions together and work together just as a single family would. Allowing small cooperatives benefits the community in a variety of ways. Cooperatives are often sustainably-motivated and understand the importance of local community, and therefore are active in the community. Housing cooperatives also benefit the condition of our homes. They take pride in their homes and are constantly attempting to preserve and enhance the condition of the homes themselves. We should not limit this valuable resource to multi-family zoned houses.	Thank you for your participation. Your comments about allowing housing co-operatives in single-family zoning districts will be considered as the zoning ordinance is updated.

Jose Aburto 6/02/15	I would love to suggest housing cooperatives in single family zoning areas in order to open up the opportunity for some of Marquette's residents to have the chance to be part of a housing cooperative. Housing cooperatives contain multiple units of housing, are governed by bylaws and operated by elected officers and directors, and require occupants to share in the cost of maintenance and utilities in the form of rent/monthly fees. Being a part of a co-op, you don't actually buy the home, but instead you buy shares in the house. No one owns a greater part of it. Housing co-ops also act as single family homes and therefore should be allowed in single family zoning districts. Marquette has a lot of ways that it can grow and truly become a better city and that is what Marquette is, a city. Let's give this city more options so we can grow together as a community. Thank you so much for your time and effort put into the Master Plan!	Thank you for your participation. Your comments about allowing housing co-operatives in single-family zoning districts will be considered as the zoning ordinance is updated.
Mika Benton 6/02/15	I am writing to discuss some thoughts and hopes that I have for the new city Master Plan. Mostly involving housing. I feel that the current restrictions on living situations in Marquette are quite dated and difficult to work with for the large population of students and those without a "family" of their own. I do not agree that no more than four unrelated persons can live under the same roof. This restricts many people on housing possibilities. Especially within the residential general area. With the amount of people who need homes versus the amount that is "allowed" per home. It is nearly impossible for everyone to live in an acceptable home. If any at all. An idea that is becoming a more popular, beneficial, and community-based is cooperative housing. The ability for people of all ages to be able to be apart of a more invested and sustainable lifestyle. Where each member of a household (related or not) would have a responsibility for their home and community. It creates a more responsible home owner. And homes would be less likely to be run down and unsightly from the hands of a neglectful landlord who refuses to fix a house with college students living in it. Creating a vicious cycle of upset tenants and a broken home. Living in a housing cooperative allows a sense of pride in a home and a motivation to maintain a more livable space. Cooperatives are also more known for their attempts towards living a more sustainable and conscious lifestyle. Which in	Thank you for your participation. Your comments about allowing housing co-operatives in single-family zoning districts, and about the occupancy standards for dwelling untis will be considered as the zoning ordinance is updated.

	turn aids th e community and creat es a more friendly and safe environment.	
Eric Creel 6/02/15	I've read through a large portion of the Draft Master Plan and a m very exci ted to s ee co-operative housing introduced as a recommendation for multi-family zoning! Co-operat ive housing could be a great step for our c ommunity; a step that would help Marquette pave the way and be a model f or sustainable living to other communities. However , for that reason, I think it's very imp ortant that we do not limit co-op erative housing only to high-density zones, and make cooperative housing options for general and single-family zones as well. Co-operatives homes come in all different sizes and types. A livin g co-op c ould be as small as a close knit group of 10 or less people in a single-family house, and a s large as an apartment c omplex the size of Sn owberry Heights. Very large cooperatives can be difficult to finance and manage. Allowing for smaller cooperatives in GR and SFR z ones would be an opportunity for small groups of passionate community members to make real change in our city. Many of the older homes and neig hborhoods in our town could be revitalized and i mproved by cooperative groups if given the right avenue to establish themselves as a recognized housing co-operative in the community. One of the things that I think would make this much more viable, would b e to all ow recognized co-operatives the ability to have more than 4 unrelated people in a single home. I n addition to financing a house cooperatively, living co-ops actually live and function together as a f amily. Limiting the number of people that can be a p art of this f amily limits the kinds of work and projects that family c an take on. Many of the older and lar ger houses in Marquette can and h ave housed families far l arger than 4 people. Rather than splitting them up into poorly divided apartments, these homes c ould be used much more efficiently and sustainably as a much larger "single-family" co-operative. I am aware that having sufficient parking for many of these large houses is a concern, but many other cities and communities around the world have been able to find solutions for this as well. Because housing co-operative members are often very conservation- and ecological-minded having a car is not always a priority for them. Many other cities have recognized this and made exceptions for	Thank you for your participation. Your comments about allowing housing co-operatives in single-family zoning districts, and about the occupancy standards for dwelling untis will be considered as the zoning ordinance is updated.

Eric Creel cont'd 6/02/15	formally recognized co-op eratives to h ave a lower requirement for parking. Some communities have even allowed spaces for " bike parking" to make up the difference in the r equired number of parking spaces. Seeing as Marqu ette is very bike-friendly community, I think thi s is an avenue worth pursuing. Co-operative housing ca n provide many benefits that I think the city is currently seeking. Housing co-ops could provide lots of affordable and dynamic housing for students and recent graduates, as well as long-term residents. I think tha t co-operatives help protect the quality of the c ommunity and neighborhoods around them. Members of cooperatively owned hom es are engaged citizens who have a vested interested in keeping their home and community beautiful. This is opp osed to your average college student who lives in a run -down and crammed duplex or triplex that is poorly maintained by an absent l andlord. As a community member, I would much rather live next to som eone who has a sense of ownership, responsibility, and pride for the home they live in. Housing co-operatives can provide many more benefits to our community that I'm sure I don't need to mention. That is why I hope you will strongly take this into co nsideration while revising the recommendations for our Master Plan.	
Marquette County Planning Commission	See attachment on p.A-30 for content of letter.	Thank you for your comments. We concur with the analysis provided, more inter-jurisdictional co-operation is desirable. As plans for a new hospital are completed, the current site may be addressed by relevant parties.
Chocolay Township Planning Commission	See attachment on p. A-31 for content of letter.	Thank you for your comments. We concur that more co-operation between our jurisdictions is desirable.
Marquette County Brownfield Authority	See attachment on p. A-32 for content of letter.	Thank you for your comments. As plans for a new hospital are closed, the current site may be addressed by relevant parties. We concur that co-operation between

		entities is desirable for economic development.
UP Food Exchange	See attachment on p. A-33 for content of letter.	Thank you for your comments. We concur that food systems plans are vital, but the level of detail suggested is more appropriate for a stand-alone strategic plan.
Marquette Bikeability Committee	See attachment on p. A-34 for content of letter.	Thank you for your comments. We concur that more detailed plans for a bicycle network are needed, and this would be appropriate for a stand-alone plan.
A. Johnson, MDOT TSC, Ishpeming	I skimmed thru your plan and didn't have any comments, other than - Regarding the truck route of McClellan Ave: I received a complaint from a trucker that involves the approach to US-41 Bypass from the north, on McClellan Ave. He states if he's fully loaded and is heading south, intending to head onto M-553 directly across the bypass, he cannot get going if he's stopped at all on the hill by the signal. So, in order to overcome this, he approaches the signal in the right lane, which is technically a right turn only lane. He then waits for the signal in this right turn lane. Then when it turns green, he says he kind of lets all the thru traffic, on his left, get past him, then he proceeds straight onto SB M-553. He's technically doing an illegal maneuver, but states it is his only way to ensure he doesn't get stuck with a full load on this hill after waiting for the signal. This is during dry pavement condiditons… He's asking for advice. I plan to share this complaint with the City Eng. Dept and Police Dept. as well, to pass along the complaint and see if they have any suggestions for this situation.	Thank you for your comments. The truck/hill issue mentioned has been discussed and the Planning Commission has provided comments on potential solutions to the MDOT Corridor Advisory Group and City staff.

City Commission Comments

On June 15th, 2015 a special meeting of the City Commission was held, at which a discussion about the *Draft Community Master Plan* was conducted as an agenda item. In the Comment column of the following table (A-3), statements made by City Commission members are reported, with some paraphrasing to save space. Responses by the Planning Commission are recorded for each comment. The Planning Commission is pleased to have a collaborative role in utilizing the input of all stakeholders to make improvements to the Community Master Plan.

Table A-3: City Commission Comments on Draft Master Plan

Commissioner Comment - Tom Baldini	Planning Commission Response
Commissioner Baldini said this was an extensive document with a lot of work but he has questions and comments. He said in the vision statement, he thought it was rather narrow, shouldn't we include race, etcetera? He also questioned the statement saying that we Nurture a Green Economy and felt that should be expanded upon if we were going to use it. He said recently we had meetings on economic development, and there is a section in the Master Plan regarding economic development that should contain the new Trade Zone, and Smart Zone. He said there are also a number of Foundations in the City; the Kaufman, Frazier and Reynolds, and Public School Foundations, to name a few, and as time goes on these Foundations have great potential, and this should be acknowledged. Commissioner Baldini asked if we have any idea of how many people come into and out of our town every day? This may be something important to consider, as this brings with it certain responsibilities. He said that we have an Arts and Culture Master Plan, but maybe there should be an appendix so that it is easily accessible, he also said there is a hospice facility that has gone through the Planning Commission and that should be acknowledged. He said that K-12 education should be added, as people move to a location because of the quality of education, and he said the U.S. Olympic Training Center brought in a tremendous amount of people, including internationally, and shouldn't we acknowledge that? He said this is a fascinating document with great potential and a lot of responsibility as to how we move forward with it. He said he wanted to thank the committee for its work and for the public who submitted their comments.	The Vision Statement has public ownership. It was developed in public meetings, with the public collaborating with the Planning Commission to create rough drafts, and the final version was selected by vote as the preferred alternative to another statement. There is a table on page 4-8 that documents the estimated daytime commuter population. Recognizing the various foundations in the community and their role in the community is something that could be added to the Master Plan. There is a synopsis of the Marquette Area Public Schools system in Chapter 7. Economic planning is the purview of the City Manager via the recently amended City Charter. The Community Master Plan only references other plans developed by the City which are not specifically for land use or sub-areas of the City.
Commissioner Comment - Sara Cambensy	**Planning Commission Response**
Commissioner Cambensy said she had a comment on Chapter 9-The Waterfront, she said it is a good review of information and public concerns, and that there is information about residential development, but that many members of the community are concerned about community buildings along the shore, such as the proposed rowing club facility. She said the Community Master Plan is missing information about public accessibility of our waterfront, and asked if there were any comments received on this and any comments about the Founders Landing development.	Waterfront protection was a very common theme that was brought up in visioning sessions. Question 3 of the online survey also (see p. A-9) showed L. Superior to be the physical feature most associated with Marquette; other questions saw Founders Landing referred to either in positive or negative terms. One of the written comments received referred to Lakeshore Protection explicitly (p. A-9). Chapter 9 addresses this topic in great detail.

Commissioner Comment - Dave Campana	Planning Commission Response
Mayor Pro-tem Campana said this is a well-done document, that it covers many things, but that it did not include a plan for the current hospital site. He thanked the Planning Commission for their work on the Master Plan.	In the summer of 2014 the Planning Commission submitted Strategic Plan recommendations to the City Commission, including to begin planning for the re-use of the current hospital campus. This will be a major planning project, that the property owners will have to lead, and we do think that dialogue should begin with all stakeholders as soon as the new hospital site purchase has been completed.
Commissioner Comment - Mike Conley	**Planning Commission Response**
Commissioner Conley thanked the Planning Commission for the tremendous amount of work done on the Plan, and said it provides a snapshot in time, and that it should be accepted. He encouraged moving ahead with the Plan as it is, with the basis of his recommendation that this is a living document that will not sit on a shelf, and that the Planning Commission will update it regularly over time.	The Planning Commission will be holding a minimum of three work sessions per year to review the recommendations of the CMP, and to consider important community developments, for possible amendments to the CMP.
Commissioner Comment - J. Michael Coyne, Mayor	**Planning Commission Response**
Mayor Coyne said he had four items of concern when he read through the Master Plan; 1) he did not see anything on the development of a large natural gas pipeline that would give us options for both the City Power Plant and We Energies, and asked if that was addressed in the Plan; 2) under the Transportation chapter, inter-modal transportation was not prominent; 3) housing - he said he has no idea what "co-op" housing is, but said we need to find innovative ways to provide affordable housing; and 4) we should try and figure out better ways to communicate and cooperate with our surrounding entities, and include this in the Master Plan.	Energy production is discussed in CH. 8, but natural gas use was not considered. CH. 6 (Transport) points out that inter-modal transport facilities are limited to freight movement in the harbors, and there is a recommendation for Regional Transport Improvements that includes inter-modal facilities. There are several recommendations that address affordable housing (pp.2-5 and 2-6). On p.2-1 there are general measures identified for promotion of the CMP recommendations, including partnering with adjacent Townships and other community stakeholders.

Commissioner Comment - Peter White Frazier	Planning Commission Response
Commissioner Frazier said he sees this as an excellent document and that he had no complaints on the Plan, but he said they need more understanding of the waterfront development rules. He said he'd like to see our waterfront used to our advantage more, like Munising is doing.	The Planning Commission recommends further community engagement for effective visioning and strategic planning regarding waterfront activity (p. 2-9), along with following Principles of *Smart Growth Coastal and Waterfront Elements* outlined on p. 9-24 (p. 2-9).
Commissioner Comment - Sarah Reynolds	**Planning Commission Response**
Commissioner Reynolds asked staff if making changes such as those suggested by Commissioner Baldini would cause the Master Plan to have to be reviewed from the beginning again. Commissioner Reynolds said she is not interested in doing that, but that she would like to see something added with the recommendations to document changes as they are made.	Not all changes to the Draft CMP would require re-starting the process of amendments, but the Planning Commission would prefer to make any further changes to the document after the document has been adopted, since none of the comments that were received have pointed out any serious flaws in the Draft Plan. The addition of a table to track amendments to the CMP, and for recommendations carried out, will be a good addition to the document and would be easily added to the end of CH.2 during the first amendments to the CMP.

WINTER CONSIDERATIONS Appendix B

INTRODUCTION

Marquette's unique four-season climate, and its identification as a "winter city," bring with it a host of benefits. The area can have long, cold winters, and experience snowfall exceeding 150 inches per year. Snowstorms are common. The extremes of winter pose a number of challenges that must be overcome, and sometimes embraced, in order to fully utilize the winter season as an important community asset (See Table B.1).

Northern communities or "winter cities" must become more competitive than their southern counterparts to find their place in today's global marketplace. Unfortunately, the winter season is often dreaded in the North American culture due to perceived discomfort, inconvenience, and a potential increase in costs. In order to overcome this attitude, communities must embrace the winter season. By applying creative planning approaches to solving winter-related issues, Marquette can mitigate some of the discomfort and inconvenience of winter. This positive approach can also benefit the attitudes of residents, and bolster the City's ability to attract new businesses and residents.

Table B.1: Winter Characteristics

Positive Aspects of Winter
• Outdoor recreational opportunities, including downhill and cross-country skiing, snowmobiling, ice fishing, snow shoeing, ice skating, and hockey.
• Natural beauty, accented by snow and ice.
• Increased appreciation for indoor arts, culture, and social activities.
• Winter tourism, special events, and festivals.
• Using ice and snow for civic art.
• Opportunities for innovation and improvement in services, building, and product design.
• Generally speaking, the population is more fit with a strong will to overcome challenges.
Negative Aspects of Winter
• Increased cost for snow management for both the public and private sectors.
• Health costs associated with accidents, both auto-related and pedestrian "slip and fall" incidents.
• Seasonal Affective Disorder (SAD) and psychological depression related to a lack of sunlight.
• Difficult mobility, particularly for seniors and the disabled, either as pedestrians or in automobiles.
• Prolonged cold, snow, and icy conditions.
• Limited outdoor activity for many persons.
• Increased heating costs and energy consumption.
• A visually monotonous environment dominated by white and gray.

PUBLIC PERCEPTION

As part of the public participation process, community residents were queried as to their thoughts and opinions on Marquette's climate and the role that winter plays in the area's unique way of life. Overwhelmingly (83%), respondents indicated that winter was a positive attribute to living in the community, although persons in the 65-74 age group were less likely to see winter as positive (33%). In its investigation into why residents felt the way they did about the winter season, the telephone survey indicated a number of common likes and dislikes (See Table B.2)

Table B.2: Responses Regarding Winter Likes/Dislikes

Common Positive Attributes	% of Responses
Winter activities	47%
Like snow	18%
Change of seasons	13%
Tourism Industry	12%
Like winter	12%
Common Negative Attributes	**% of Responses**
Dislike cold	36%
Difficult to get around	15%
Dislike snow	15%
Dislike winter	11%
Winter is too long	11%

Telephone respondents were also asked to indicate the types of indoor and outdoor recreation activities they participate in during the winter season. Table B.3 indicates the most popular responses. In general, responses focused primarily on outdoor activities, particularly active recreation such as skiing, hiking, and hockey.

Of those respondents who indicated a preference for indoor activities during the winter season, the most popular responses included swimming, indoor exercise, and team sports.

Table B.3: Preferred Winter Activities

Activity	% of Responses
Downhill Skiing / Snowboarding	36.8%
Hiking / Walking / Running	26.3%
Cross Country Skiing	22.1%
Snowshoeing	21.3%
Ice Skating	15.5%
Hockey	11.3%

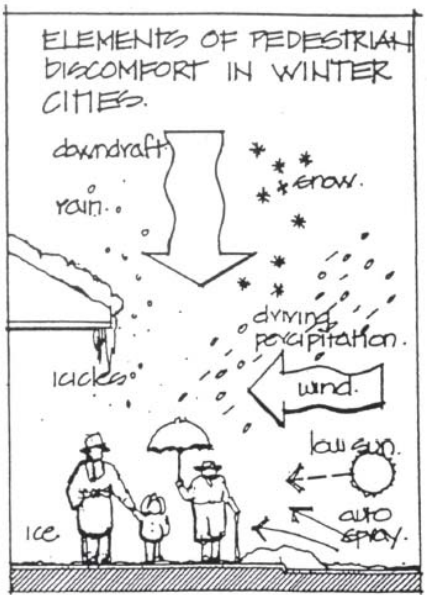
RECOMMENDATIONS

This input from local residents served as an important indication of the direction Marquette should head with respect to improving its winter livability.

Snow Management

- Ensure adequate storage space for snow. The enlarged terrace areas recommended as part of the traffic recommendations would provide such as storage area.
- Care should be taken to protect ramps and stairways from ice and snow as much as possible. All public and private walkways on slopes should provide a handrail for pedestrians.

- Evaluate the impacts of winter winds and drifting snow on city streets and walking paths. Redesign the areas where wind is problematic to use earth forms and planting areas to reduce wind discomfort and drifting snow.
- Snowmelt systems for walkways should be considered for high-traffic and sloped areas.
- Investigate the use of new equipment or innovative technology for snow removal. This is particularly important when existing snow removal practices potentially interfere with traffic calming and walkability mechanisms.
- Snow removal should be considered in the design of road improvements. For example, curb extensions should be designed as a series of gentle curves, rather than sharp angles to allow for easy maneuverability of equipment around such areas.
- Balance the need for efficient snow removal with other considerations such as walkability, aesthetics, and parking.



Pedestrians often experience the most discomfort due to winter conditions

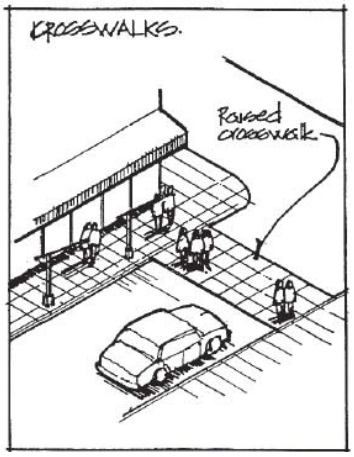


Figure B.1: Pedestrians Considerations

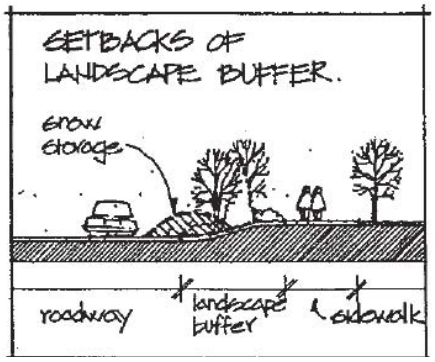


Figure B.2, Buffers protect pedestrians from adjacent traffic

Site Design

- Utilize solar radiation in the orientation of buildings and outdoor spaces. Such areas should provide a southern exposure to maximize penetration of heat and sunlight. Planting deciduous trees on the southern face can also provide cooling in the summer (when leaves are present), while still allowing sunlight to filter in during the winter (when the leaves are gone).
- Use trees, vegetation, and the building design to shelter exposure areas from prevailing winds.
- All municipal facilities and buildings should be designed to function and look good in all seasons
- Consider the effects of snow, ice, wind, and rain on facilities through the site plan review process.
- Consider color and lighting treatments when designing buildings and landscapes in order to offset the darkness and monotony of the winter season.
- Promote a compact, denser development pattern.
- Use technology and materials appropriate for a "winter city". Outdoor furniture should be constructed using appropriate materials such as wood, polyethylene, or vinyl-coated metal. Exposed metal is not appropriate.

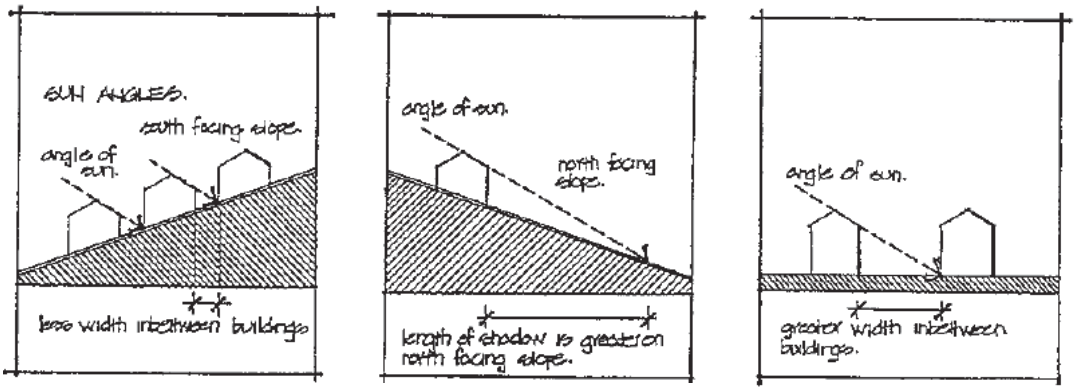


Figure B.3: Topography in the Site Design Process

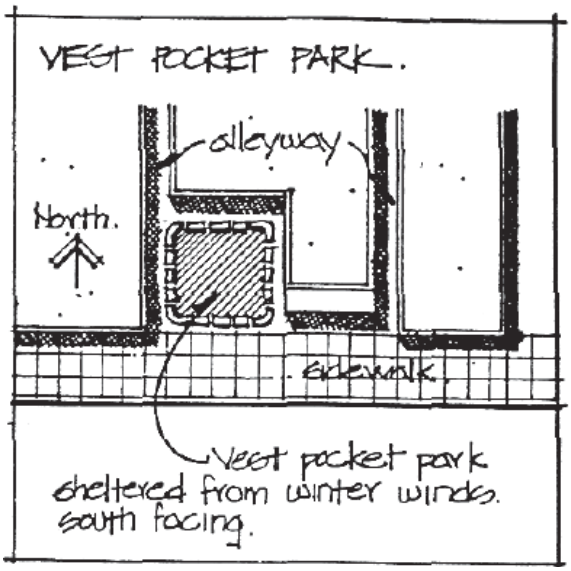


Figure B.4: Buildings and Wind Protection



Handrails are necessary to ensure safety on steps or ramps

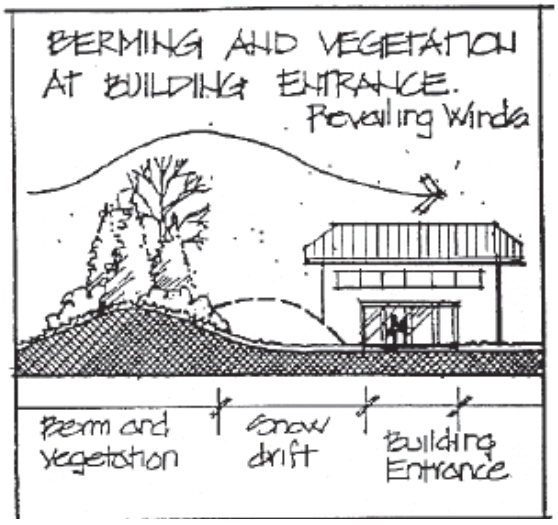


Figure B.5: Berms for Snow Management

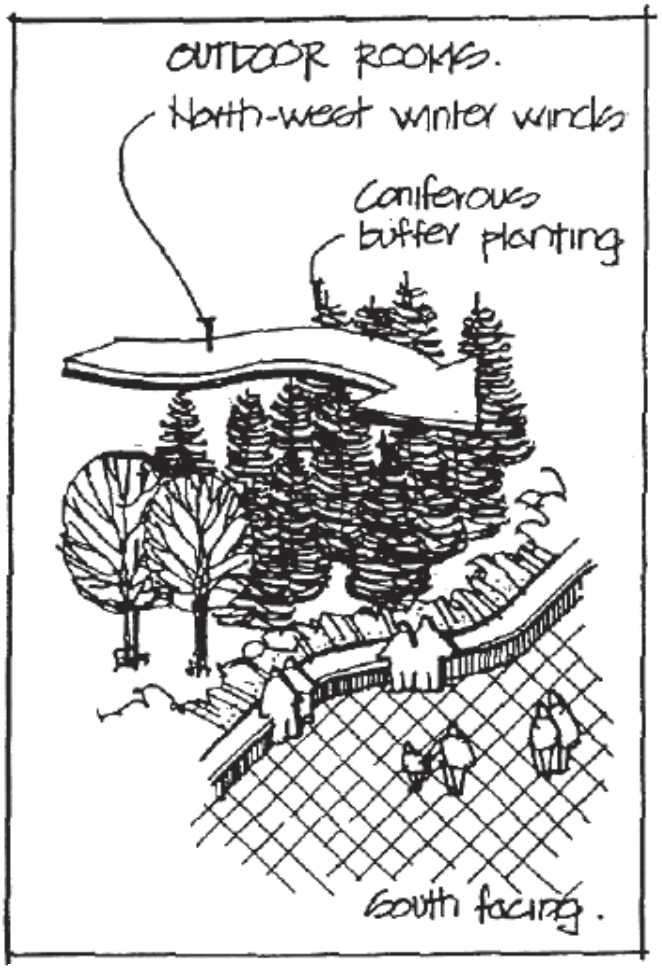


Figure B.6: Vegetation Protection

Recreation Opportunities

- Create ski trails within the city by connecting existing trails and walkways, and by maintaining the snow for a multi-purpose skiing and walking path. Potential trails include a connection between the Fit Strip ski trails and the proposed linear park via Harlow Park and the cemetery, and the Lakeshore and Ridge to Hawley bike paths.
- Consider ways to use existing city parks for additional winter activities, such as a tubing slide at Harlow Park, snow slides, sledding hills, etc.
- Implement the Marquette Commons skating rink project.

Community Involvement

- Generate local pride in the community by rejecting negative thinking about winter, its potentials and opportunities
- Recognize innovative efforts in the community to with regards to site design, technology, or materials.

Networking

- Continue to communicate with other winter cities to learn about innovations in snow management and ways to reduce the use of de-icing agents and salt, because of their impact on the environment.
- Marquette should continue its involvement with "winter city" organizations such as the Livable Winter Cities Associations and the International Association of Mayors of Northern Cities (IAMNC), which hosts a bi-annual Winter Cities Forum.



For many pedestrians, winter walking presents a choice between walking on a slippery sidewalk, or at the edge of a street. The street may be the safer choice regarding footing, but it exposes pedestrians to vehicular traffic at the darkest time of the year.



Winter can be an opportunity for outdoor festivals and art displays



Marquette's "City of Lights" program helps offset the gray winter landscape



Residents embrace winter in downtown Lulea, Sweden

ADAPTING TO CLIMATE CHANGE Appendix C

INTRODUCTION

This appendix summarizes the *Adapting to Climate Change and Variability* project and document that was completed in September 2013 for the City of Marquette, in partnership with the Superior Watershed Partnership and Land trust, by the Great Lakes Integrated Science and Assessments Center (GLISA) and a Michigan State university Extension project team. It also provides information about two other climate studies done in recent years that used Marquette as a case study city.

This report details the process and results of this community-driven process. It also contains specific maps of the region that reflect the climate vulnerabilities and concerns of the residents and leaders in the Marquette region. The full report may be accessed on the City Planning Dept. website, at and City Planning office in City Hall, at the Peter White Public Library, and the NMU Lydia Olsen Library. The following three subsections are excerpts of the *Adapting to Climate Change and Variability* document.

Executive Summary



The City of Marquette is the largest city in the Upper Peninsula and one of the most economically diverse in the state. Residents are employed in the timber and mining industries, and in health care, higher education, and high tech manufacturing. Tourism accounts for a significant amount of revenue every year, with visitors coming each January for the Noquemann Ski Marathon, each February for the Sled Dog Races, and in the summer months for the Ore to Shore Bike Race. In addition to regional festivals, hiking and mountain biking take place on the extensive trail network surrounding the City.

Yet Marquette is especially vulnerable to environmental, economic and social impacts of climate change largely because it borders Lake Superior. Record high surface water temperatures, declines in ice cover, and decline of rare sub-arctic plant species are just a few of the related impacts already documented on the Lake. In 2012, Marquette closed a public beach due to high bacteria levels, a condition that is exacerbated by warmer water. Record low Lake Superior water levels mean that freighters must reduce their tonnage. Despite significant progress, the City is not on schedule for the replacement of roads, bridges, and drains; and this infrastructure may be unable to cope with increased floods and a longer thaw/frost cycle.

A team of Michigan State University Extension specialists and educators received funding from the Great Lakes Integrated Sciences and Assessments Center (GLISA) to collaborate with GLISA researchers, relevant decision-makers, and stakeholders in two Michigan local governments units to increase community resilience through incorporating climate variability and change adaption strategies into local land use master plans and policies. The Project Team chose the City of Marquette, in partnership with the Superior Watershed Partnership (SWP) and Land Trust, because of the City's vulnerability, but also because of the community's readiness and resources to support a climate adaptation plan.

The MSU Extension Project Team worked with the City, the SWP, and GLISA to design a process that enlisted community members to identify and prioritize their climate change concerns. Key stakeholders in the agriculture, forestry, natural resources , health, planning, and tourism fields

then reviewed and added to these concerns and strategies. Overwhelmingly, residents and local leaders wanted to protect the natural environment that makes Marquette such a desirable place to live.

This report details the process and results of this community-driven process. It also contains specific, detailed Geographic Information System (GIS) maps of the region that reflect the climate vulnerabilities and concerns of the residents and leaders in the Marquette region.

Purpose

Certain towns and regions in Michigan are more vulnerable to the effects of a changing climate. Those bordering the Great Lakes, or with local economies heavily dependent on tourism or agriculture, have a more pressing need to plan for increased variability in lake levels, temperature, flash floods, droughts, or severe storms.

Yet local decision makers find it difficult to plan for climatic changes, given the nature of the issues: the political polarization and public controversy surrounding it, the fact that long-term weather patterns affect nearly every aspect of community life, and a scarcity of model policies and plans that are appropriate for that community. Given this, the purpose of this project is to increase community resilience by incorporating community-driven, locally generated climate variability and change adaption strategies into the City of Marquette's Master Plan and related documents.

The process included two community forums to identify and prioritize climate concerns; collaboration between MSU, GLISA, and the Superior Watershed Partnership to generate adaptation strategies; interviews with key stakeholders; the completion of a climate adaptation assessment tool; and the creation of multiple GIS maps.

Process

The City of Marquette was one of two community partners selected to receive MSU Extension's technical assistance in creating a climate adaptation plan. Six communities applied for assistance, but Marquette was chosen based on its unique climate vulnerabilities in forestry, water resources, and tourism, as well as its capacity to implement the final plan.

MSU Extension and GLISA held an initial organizational contact meeting in January, 2013. The first community forum was held in February, during which participants identified local climate concerns. At the second community-wide forum, held in May, participants took in a presentation by a GLISA researcher on the local climate, and then worked in small groups to prioritize adaptation strategies and identify trade-offs to these strategies. Following this, the Project Team conducted interviews with key stakeholders in the areas of transportation, tourism, agriculture, land use, natural resources, and public health. The purpose of the interviews was to gather expert input on the adaptation strategies.

During this time, staff members from the City of Marquette completed a climate change audit tool, which served as a detailed assessment of the city's overall capacity to mitigate the effects of floods, extreme temperatures, severe storms, and other climate hazards. The MSU Project Team also worked with the City and the MSU Remote Sensing and Geographical Information Science staff to create a series of maps that will aid the City in its adaptation planning.

Community Workshops

Two public workshops were held as part of this process. These two community forums identified and prioritized climate concerns. The first meeting, in February 2013, had a focus of revealing the concerns of the community and the level of understanding among participants regarding the issue. This second meeting's objective was to elicit feedback on proposed adaptation strategies to climate vulnerabilities identified at the first meeting.



Climate meeting one, February 2013, at Lakeview Arena.

The second workshop took place on April 24th. While this session drew only about one-third the number of participants as the first, the approximately 25 community members who attended were focused and committed. To provide context necessary for the meeting's objective, Dan Brown, a climate scientist from the GLISA, presented climate data for the Western Upper Peninsula that covered past trends in temperature, seasonality, snow depth, ice coverage on Lake Superior, and Lake levels (see Image C-1). The MSU project team then used electronic survey technology (i.e. clickers) to ask participants questions about their climate attitudes. These questions are identical to some asked in an annual national survey by the Yale Project on Climate Communication, which seeks to understand the diverse concerns and attitudes of Americans regarding climate change. The Yale Project and has found six relatively distinct groups exist: 1) about 12% of Americans currently find themselves alarmed about climate change; and 2) about the same percentage are dismissive of it. Most Americans are somewhere between these polarities (groups 3-6).

The majority of Marquette participants responded to the survey questions as "alarmed." This indicates that they do not need to be convinced of the evidence, but rather are looking for ways to engage at the political level. The MSU Project Team recommends using this group's momentum to engage more residents or take action on some of the recommended policies that require citizen engagement.

After taking the attitude survey, participants then self-selected into small groups, based on their interest in one of the six adaptation themes. These strategies described best practices that have been used by other local units of government to plan for and adapt to changes in weather patterns. Individually, group members ranked the best practices according to their own preferences. They then came together as a group and agreed on one high-priority strategy. They wrote this strategy on a flip-chart pad and listed some possible trade-offs that might accompany that strategy. Each small group then presented to the whole group their high priority strategy and the list of trade-offs that might accompany that strategy. Participants also used the electronic voting system to evaluate the session, and 96% indicated they felt their opinions were being taken seriously, and they intended to stay engaged with the climate adaptation process. A summary of the priority actions is listed later in the Implementation section.

CLIMATE CHANGE IN MARQUETTE, MICHIGAN

MICHIGAN STATE UNIVERSITY EXTENSION

GLISA

Temperature

- The 30-year average temperature over the Western U.P. has increased by about 1.0°F since the 1951-1980 period.
- Winter temperatures have increased faster than those throughout the rest of the year.
- The observed warming trends are projected to continue or accelerate in the coming decades.

Precipitation

- In contrast to most of the Great Lakes region, annual total precipitation over the U.P. has declined since the 1951-1980 period.
- Spring and summer precipitation have decreased while fall and winter precipitation have increased.
- Warmer temperatures will lead to less precipitation falling as snow and more falling as rain.
- Lake-effect precipitation has increased in some areas.

Snow and Ice Cover

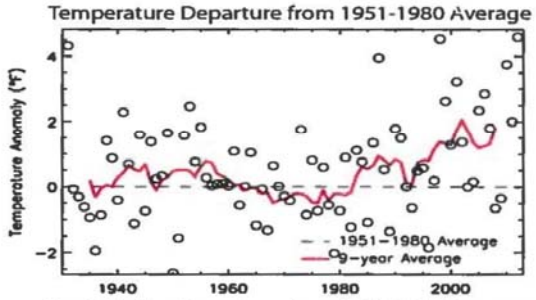
- Winter average snow depth in Marquette has decreased by 4.8 inches since 1959.
- From 1973 to 2010, annual average ice coverage on the Great Lakes declined by 71%.

Lake Temperature and Stratification

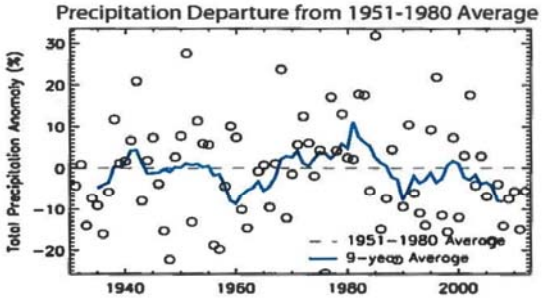
- Lake temperatures have been increasing faster than surrounding air temperatures. From 1979 to 2006, Lake Superior's summer surface temperatures increased by 4.5°F.
- Warmer water surface temperatures increase the stratification of the lakes, decrease vertical mixing in the spring-winter, and lead to more low-oxygen, "dead zones" and toxic algal blooms. The length of the summer stratification on Lake Superior has increased from 145 to 170 days over the last century.

Western Upper Peninsula

Temperature Departure from 1951-1980 Average



Precipitation Departure from 1951-1980 Average





Lake Superior Ice Coverage, March 2013. Photo: NASA

Lake Levels

- Water levels in the Great Lakes have been decreasing since a record high was reached in 1980.
- Lake levels are rising and falling a month earlier than during the 19th century.
- Other factors, such as land use and lake regulations also affect lake level, however, and it is still unclear how much of the recent trend in lake levels may be attributed to climate change.

Image C-1: Summary of Climate Change in the Marquette Region

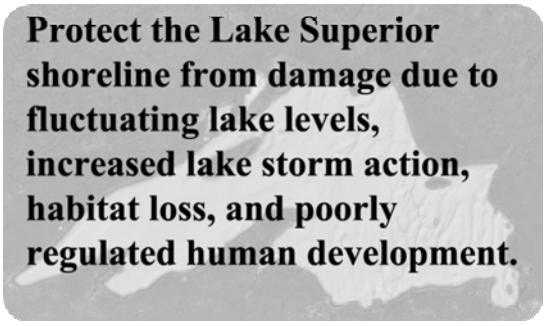
Recommendations of *Adapting to Climate Change and Variability* Report
The following recommendations were presented and discussed at Meeting Two. Six categories including: Land Use, Public Health, Tourism and Economy, Water Resources, Agriculture and Food, and Forests, were identified during Meeting One as focal points. The recommendations were drawn from a number of best practices (sourced from local, regional, state, and national documents-- including the SWP Plan. A complete list of citations is included in the appendix.), and they address the participants' identified areas of concern while relating them to regional goals outlined by the Superior Watershed Partnership's Lake Superior Climate Change Adaptation, Mitigation and Implementation Plan discussed during Meeting One.



Identified Water Concerns

A decrease in Great Lakes ice cover may lead to increased water evaporation and lower water levels. An increase in Lake temperature may result in increased algae (among other contributing factors), invasive species, and health impacts from water-borne pathogens. Additionally, as water resources become scarcer and regional populations fluctuate, importing and exporting water may become an increasingly important issue.

Water Recommendations:
•Identify and acquire critical habitat, including beach/dune areas, to be protected along the Lake Superior shoreline.
•Remove structures that harden coastlines, impede natural regeneration of sediments, and prevent natural inland migration of sand and vegetation.
•Develop and maintain State-of-Michigan approved watershed management plans for priority watersheds.
•Devise grey water storage and reuse systems to recycle and utilize water resources more efficiently.



Regional Goal

Identified Land Use Concerns

A population influx may result from a scarcity of water resources in other regions. Land use strategies are necessary to address both the potential of a growing population and the human and development impacts from severe storms, flooding, and shoreline erosion. All of these can be devastating without proper preparation. By protecting crucial floodways and shorelines through effective land use management, the impacts of climate change may be lessened.

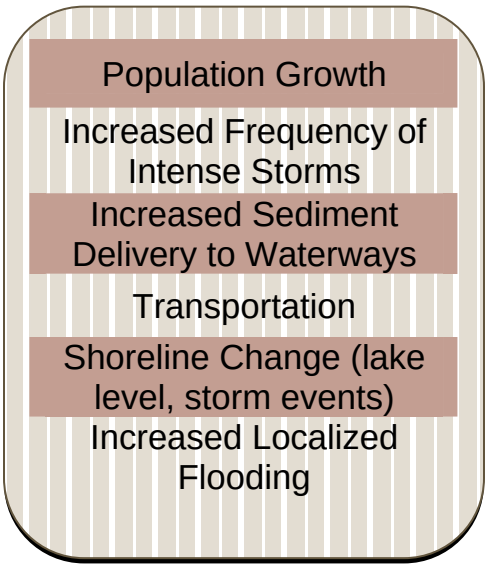
Land Use Recommendations:

•Revise conservation subdivision regulations to create incentives for developers to provide greater densities and community services, while achieving open space conservation.

•Protect sensitive land from development (including river corridors and floodplains) to preserve vegetation, retain hydrologic features, and ecological services using: land acquisition through purchase, conservation easements, and purchase of development rights.

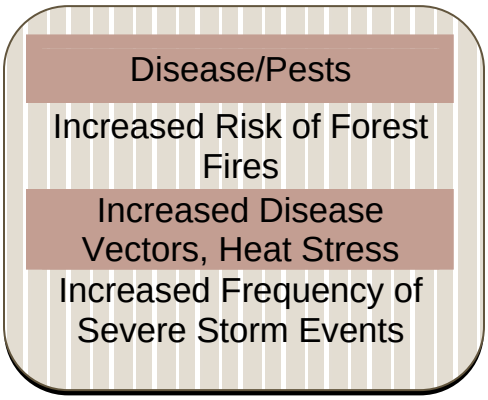
•Promote green storm water management (by adapting the utility fee rate structure currently in place) to incentivize rates in conjunction with the amount of impervious area on a property (e.g., Ann Arbor).

•Adopt Low Impact Development (LID) standards such as requirements of pervious pavement, construction of bio swales (drainage with gently sloped sides), and green roofs for new development.





Regional Goal

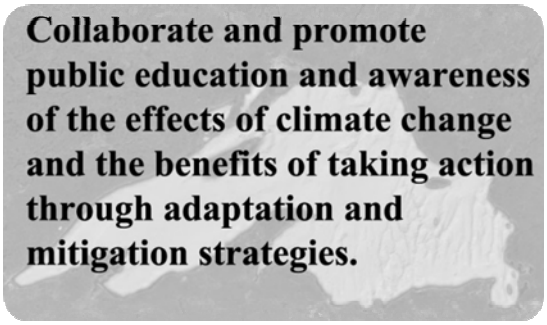


Identified Health Concerns

A changing climate could present numerous problems relating to human health and safety. Increasing ambient air temperatures during the day and night may lead to human health concerns such as: new pests and diseases, increased risk of wildfire, heat stress, and heat stroke. Proper education and preparation measures could help lessen the potential risks.

Health Concerns Recommendations:

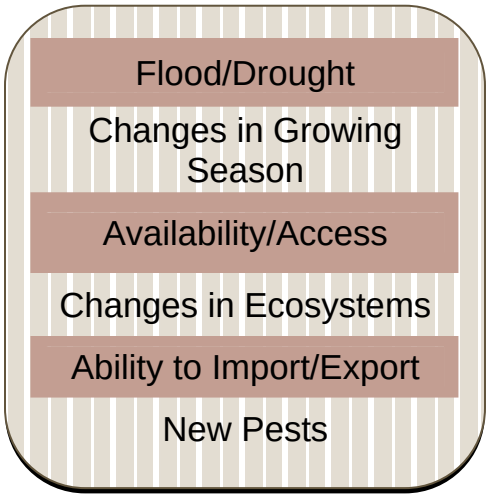
•Increase and expand current beach monitoring activities to detect presence of pathogens that could affect human health.
•Prepare and implement emergency response plans (in concert with the County Hazard Mitigation Plan and coordination with the City Fire Chief) for extreme storms, floods, heat waves, poor air quality days, disease outbreaks.
•Work with other municipalities and the county to establish early warning systems (e.g. storm sirens) about evacuation routes or other information in the event of an emergency.
•Connect emergency centers with onsite renewable energy systems to reduce susceptibility to lapses in the conventional energy supply.
•Reduce the accumulation of fuel loads such as underbrush on city-owned, forest property (e.g. Presque Isle Park, woods north of Harlow Park).

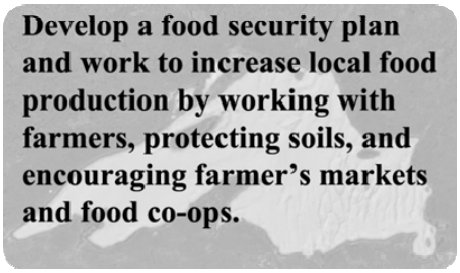


Regional Goal

Identified Food and Agriculture Concerns

Climate change in the Upper Peninsula could cause a number of serious problems relating to food and agriculture. Extended periods of drought and changes in the usual growing season are among the most pressing issues. Changes in the local ecosystem may bring in new pests and diseases that could destroy crops. The effect would be a lack of access to and availability of food as well as economic losses due to a decreased ability to export and a greater reliance on importing.



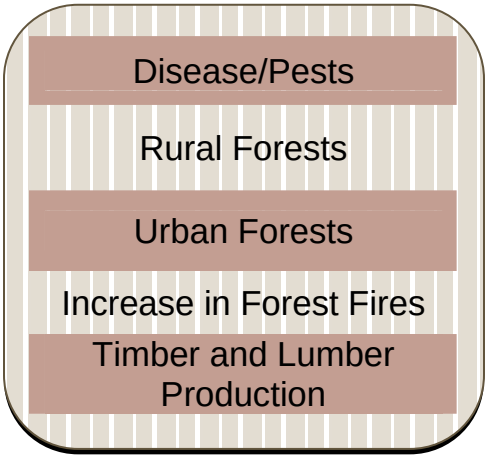


Regional Goal

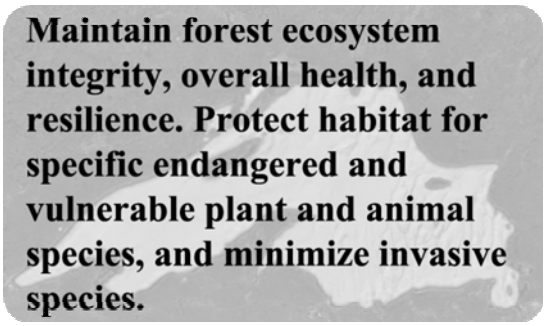
Food and Agriculture Recommendations:

- Increase and expand current beach monitoring activities to detect presence of pathogens that could affect human health.
- Prepare and implement emergency response plans (in concert with the County Hazard Mitigation Plan and coordination with the City Fire Chief) for extreme storms, floods, heat waves, poor air quality days, disease outbreaks.
- Work with other municipalities and the county to establish early warning systems (e.g. storm sirens) about evacuation routes or other information in the event of an emergency.
- Connect emergency centers with onsite renewable energy systems to reduce susceptibility to lapses in the conventional energy supply.

Identified Forest Concerns



Forests face increased vulnerability due to climate change. Changes in temperature and weather patterns could attract new diseases and pests, which may adversely affect species distribution in rural forests. Development of urban forests will help mitigate fluctuations in climate. As heat waves increase in severity and frequency, the risk of forest fires will increase, thereby impacting timber production.

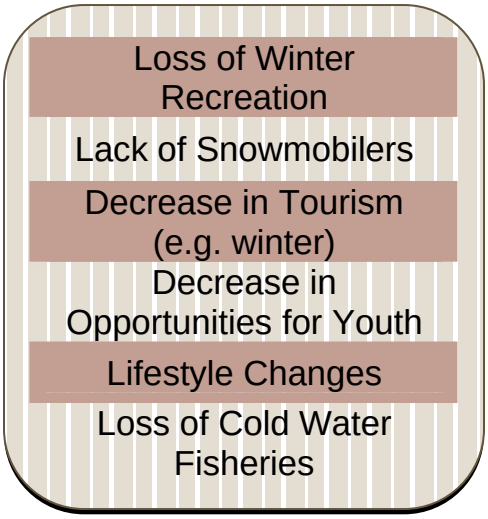


Regional Goal

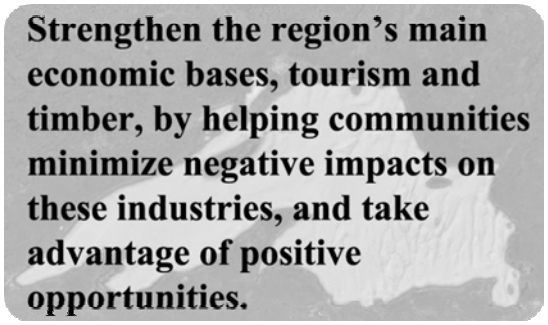
Forest Concerns Recommendations:

•Form a temporary working group among interested stakeholders to create a five-year collaborative plan to address issues of forest infestations.
•Adjust the list of approved street trees (in concert with the Arborist and the USDA Forest Service for larger tracts) to include drought-resistant species and replace monocultures (one species of tree for an entire street or neighborhood) with polycultures (many species).
•Implement additional protections for high elevation areas to absorb extreme rain events before flooding occurs.
•Plant seedlings of high quality and at proper stand density for optimal growth and to reduce vulnerability to forest pests.

Identified Tourism Concerns



Decline in Lake Superior's water level impacts deep water shipping lanes and cold water fisheries. Increased potential for shoreline erosion could limit marina access and opportunities for young people. Temperature changes could impact regional tourism activities, such as snowmobiling. These outcomes may decrease tourism opportunities. Finally, a decrease in tourism may force lifestyle changes upon the community.



Regional Goal

Tourism Concerns Recommendations:

•Engage economic development organizations and tourism-dependent businesses in developing an economic development plan specific to tourism with specific goals to help local businesses minimize economic losses and take advantage of increased tourism opportunities.
•Adjust parks and recreation expenditures to support and capitalize on changes to outdoor recreation.
•Invest in dredging of harbors and other harbor improvements/adaptations to maintain access to water resources.
•Strengthen connectivity between coastal and non-coastal recreational areas to improve resilience of tourism economy.
•Capitalize on longer summer tourism season by developing and promoting spring and fall events.

This ends the excerpts of the *Adapting to Climate Change and Variability* project and document that was completed in September 2013. Again, the full report may be accessed on the City Planning Dept. website, at and City Planning office in City Hall, at the Peter White Public Library, and the NMU Lydia Olsen Library.

Other Regional Climate Studies

Also, in recent years Marquette was included in the case studies of two scholarly research papers that examine the observed and potential impacts of climate change in the Great Lakes region. The citations for these two reports follow on p. C-10, for those interested in learning more about research that has been done with a local/regional focus, on this important topic.

Of particular interest is the City Relationship Chart (Appendix B) of *Climate Mapping in the Great Lakes Region as a Means for Inter-Urban Collaboration*, which is a matrix showing the current climate zones and future climate zones (based on precipitation intensity and average temperature) so that each of the 44 cities may see which now shares similar climates, which cities are projected to share similar climates in year 2040, and which cities are now in the projected climate zone of a given city. Nine cities are citied as now being in the future climate zone of Marquette, including Ann Arbor, Chicago, Toronto, and Fort Wayne, IN. This information may be valuable for knowledge exchange with those cities. This matrix is displayed as Figure C-2, on p. C-11.

The Superior Watershed Partnership and Land Trust (SWP) also has recently (2012) produced the *Lake Superior Climate Adaption, Mitigation and Implementation Plan*, for communities in the Lake Superior watershed and across the Upper Peninsula.

Citations:

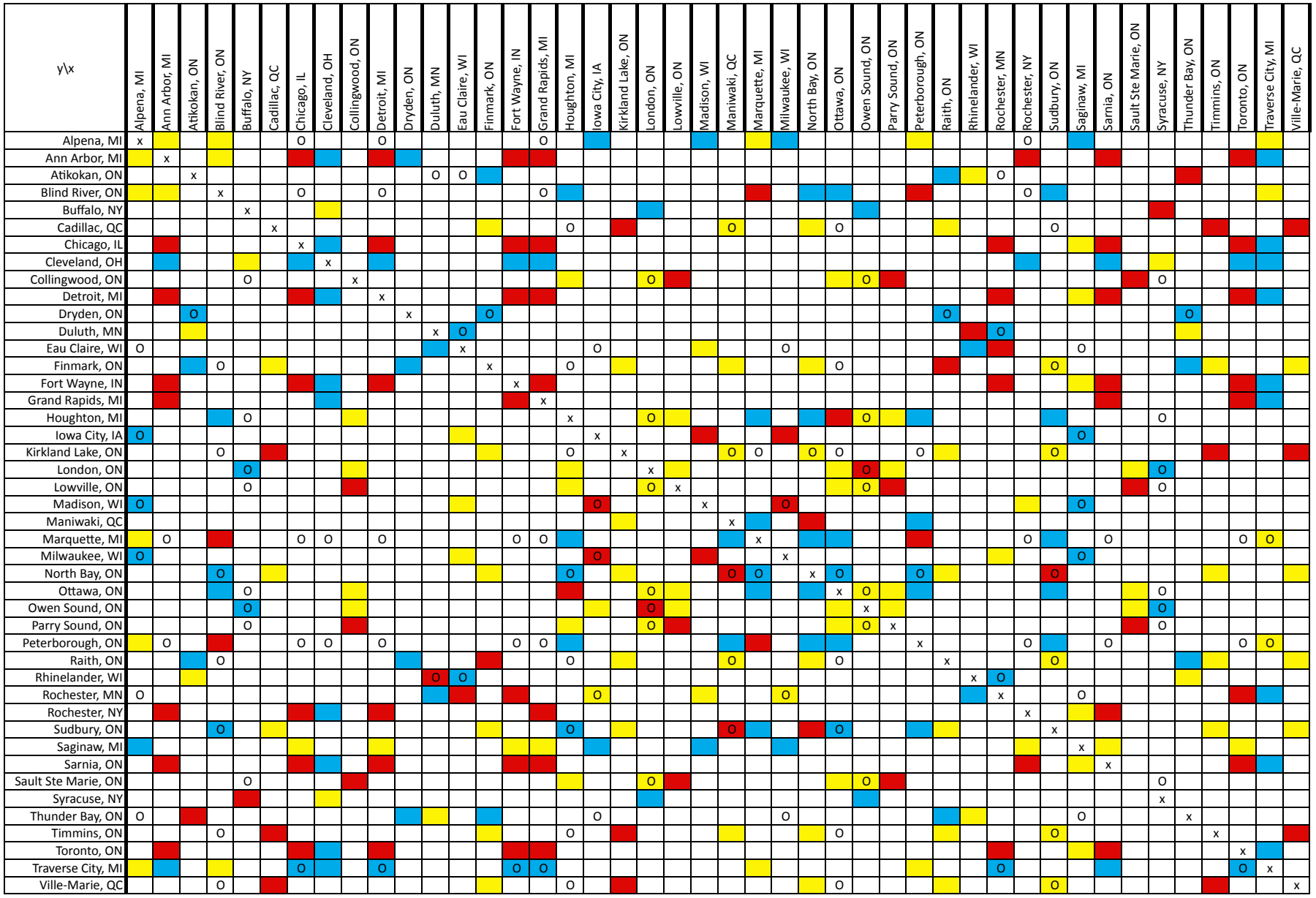
Mallen, Evan. 2012. Climate Mapping in the Great Lakes Region as a Means for Inter-Urban Collaboration in Climate Adaptation Planning. (Unpublished thesis). University of Michigan: Ann Arbor, MI.'

Campbell, David, Chio, Kwangyui, Ciemo, Peter, Dunn, Kenneth, Ho, Billy, Kim, Jongwoong, Liu, Yanhang, Martin, Clayton, and Parker, Scott. 2011. Climate Adpatation Planning in Great Lakes Cities. Unpublished capstone project. University of Michigan: Ann Arbor, MI.



During the summer of 2012 there were two tornadoes that touched down in Marquette County, and about two weeks before this photo was taken another storm nearly produced a tornado during early evening hours directly over downtown Marquette. These weather events cannot be directly correlated to climate change, but climate change has shifted the odds in favor or severe weather[1].

Footnote: Peter Miller. (September 2012). Extreme Weather. In *National Geographic*. Retrieved 28 October 2013, from http://ngm.nationalgeographic.com/2012/09/extreme-weather/



Shares Current Zone
Shares Future Zone
Shares Current and Future Zone
O City x Lies in City y's Projected Zone (Good Case Study Candidate)

Note: Several southern cities do not have case study recommendations because their projected zone lies south of the domain in the present climate map (1971-2000). This chart is based on the precipitation intensity and average temperature climate zones presented in Figure 15 in the text.

Introduction

This appendix provides an explanation of the survey methodology used for the housing quality study described in Chapter 5 of the Community Master Plan (see p. 5-21). It also includes the Housing Survey Guide, which was used by staff in rating the quality of the houses surveyed. Finally, the maps of each of the four Target Areas is provided. This appendix therefore is a model for staff and Planning Commission to use in the future, or to modify as appropriate, to monitor and report on the quality of housing in "renter-owned" neighborhoods over time.

Housing Survey Methodology

- The Planner chose 4 test areas from predominantly renter-owned neighborhoods, using areas identified as having high concentrations of poor and fair quality housing by Map 8.6 of the 2004 Community Master Plan.
- In the field, staff rated all the residential houses (can be rentals) in the area, using the Housing Survey Guide to evaluate the homes. It is important to note that staff also reviewed parcels that were not identified with a rating in 2003. But, each parcel that had a residential use was reviewed.
- Sample pictures were taken.
- Maps were created indicating previous ratings, current ratings, vacant, and non-residential or otherwise non-applicable parcels.
- Data was compiled in a spreadsheet. A method was determined of showing accurately how many homes went from one condition class to another for each target area, and as a whole for all target areas. Staff also created charts to show the change.

Key			
1 (poor)	2 (fair)	3 (good)	4 (excellent)

- The Planning Commission requested that staff also review the Assessing department's housing condition ratings for each area.
  - In the assessing database, staff marked the parcels within each test area and ran a report that had the Parcel #, site visited, and housing condition fields.
  - The depreciation chart that the Assessing department uses has eight categories of conditions, ranging from Excellent to Unsound. See chart at right.
  - Staff assigned numbers to each rating.
  - An average of those numbers was taken to get a general understanding of the neighborhood condition.
  - Then an average of the 4 ratings was applied within each target area.

Rating System	
Assessing	Conversion
Excellent	8
Very Good	7
Good	6
Average	5
Fair	4
Poor	3
Very Poor	2
Unsound	1

Assessing Condition Categories

Notes:

- Commercial buildings with apartments were not surveyed but a parcel with a commercial building that also had a residential building was included. Buildings like Snowberry Heights were not reviewed.
- Everything not reviewed was identified as vacant or non-residential.

Housing Survey Target Areas

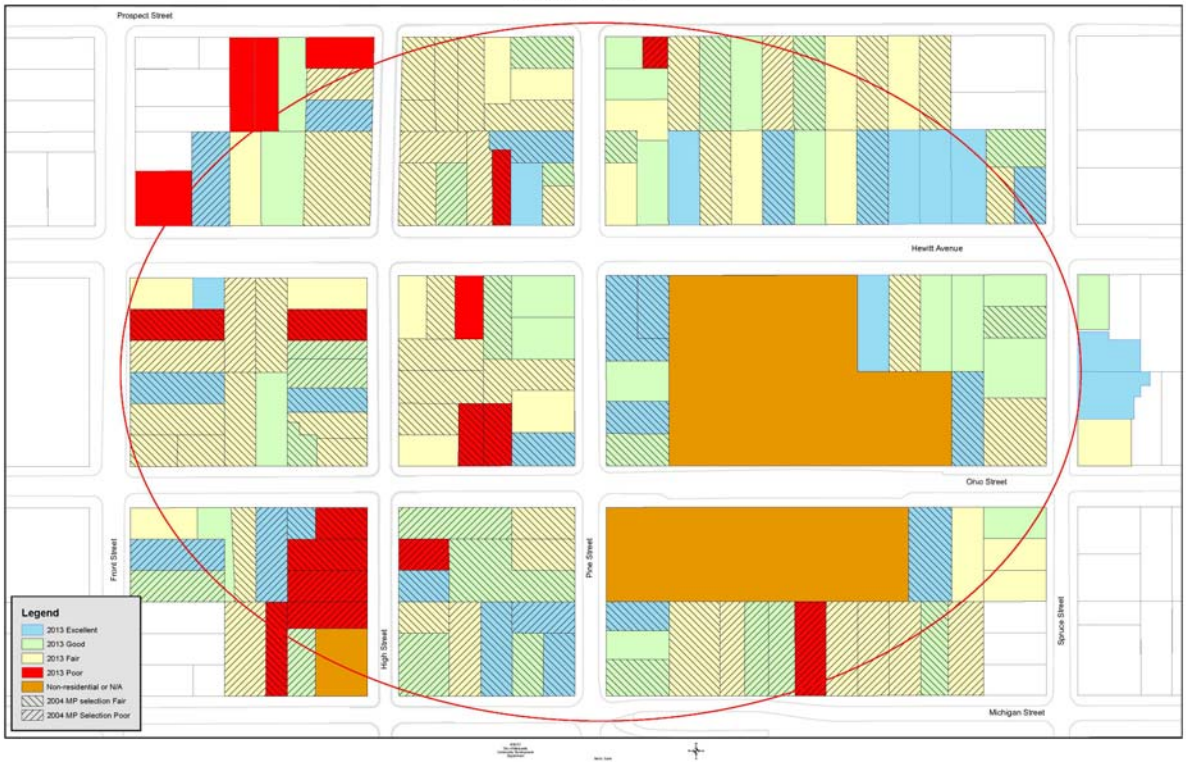
Please see Figure 5.9, on p. 5-21, for the map of all Target Areas. The following three images display the three Target Areas

Target Area 1



Target Area #1 is south of Hawley St., north of Union St., west of Presque Isle Ave., and along Wilkinson St., as shown.

Target Area 2



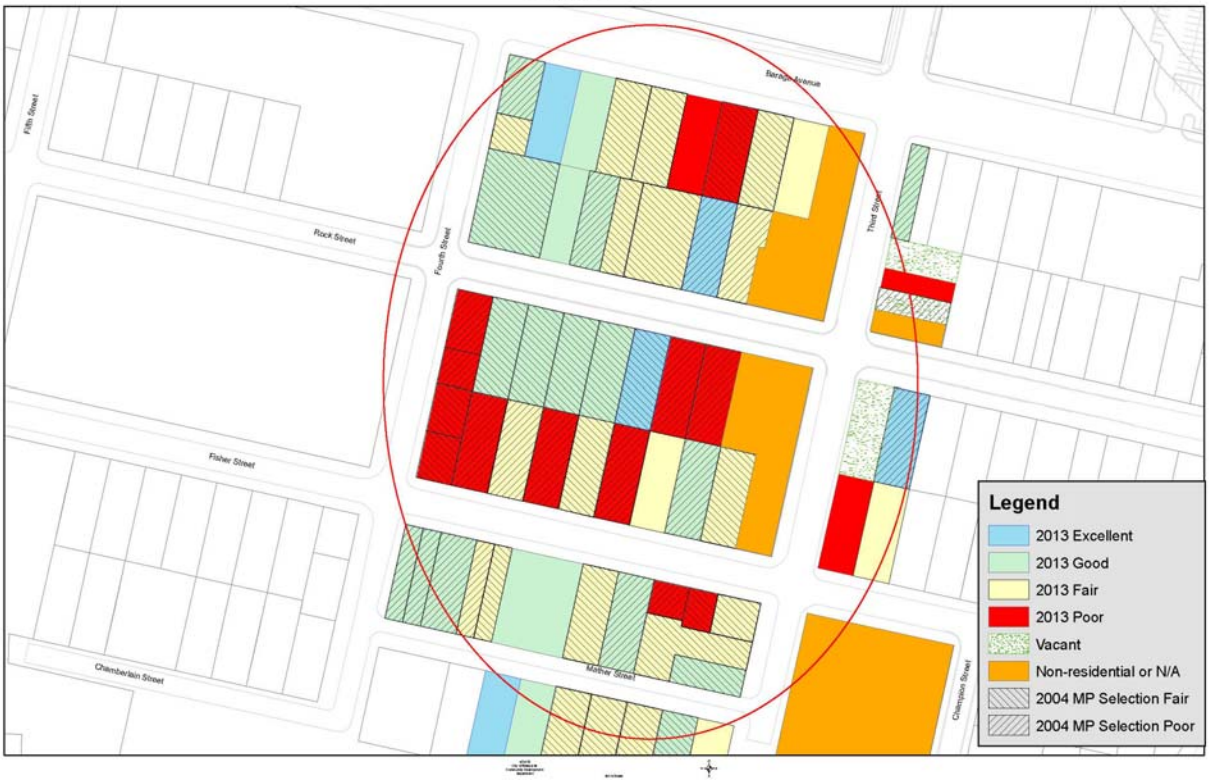
Target Area #2 is south of Prospect St., north of Michigan St., west of Spruce St., and east of Front St., as shown.

Target Area 3



Target Area # 3 is south of Spring St., north of US-41/M-28, and east of Fifth Street, as shown.

Target Area 4



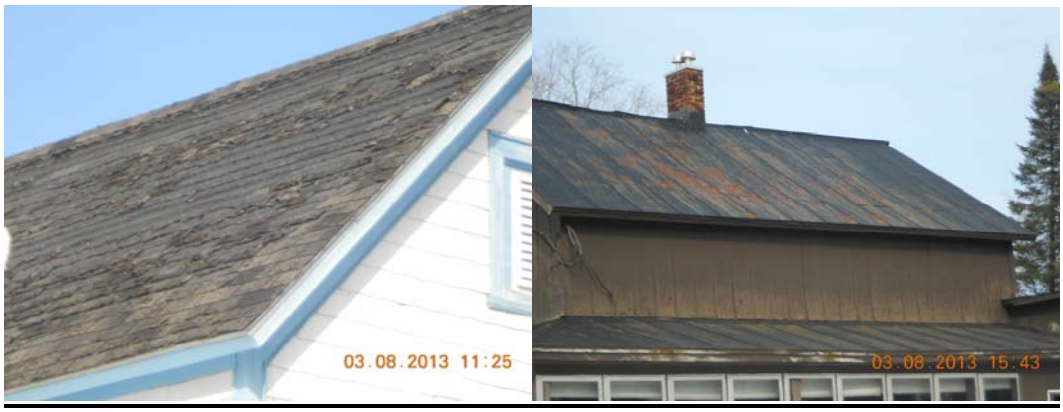
Target Area #4 is south of Baraga St., east of Fourth St., and along Third and Mather Streets, as shown.

Housing Survey Guide

The following pages contain a Housing Survey Guide, which was created and used by staff in rating the quality of the houses surveyed. The categories of items rated and the ratings are based in part on the International Property Maintenance Code, which is one of the municipal codes adopted by the City of Marquette, and is the primary source of codes references for the enforcement of residential building maintenance.

WINDSHIELD SURVEY

Roofs



Poor- Significant deterioration has taken place. On asphalt shingled roofs, this would include badly deteriorating or "popped" shingles, missing shingles, exposed roof decking or tar paper, missing or damaged drip edge, etc. On a metal roof, this would include severe corrosion, badly deteriorating paint, damaged seams, etc.



Fair- Starting to deteriorate and show signs of weathering. On an asphalt roof this would include mild deterioration or "popping" of shingles (for example, shingles have only started to deteriorate in the valleys but the rest of the roof is in good shape). For metal roofs, this would include mild corrosion/oxidation and/or mildly deteriorating paint.





Good- For asphalt shingles and metal roofs, very little to no sign of deterioration. The roof is not brand new but there are no shingles that have deteriorated or no sign of corrosion and the paint is in good shape.





Excellent- The roof is new, installed in a workmanlike manner (seams are staggered and rows are straight, etc.) and shows absolutely no signs of being weathered.

Siding





Poor- Siding shows significant signs of deterioration or is missing in places. For wood siding, severely rotted boards or badly weather paint or stain. For vinyl siding , severely cracked, chipped or not properly fastened. For aluminum siding, severely bent, dented, or not properly fastened. For brick and concrete masonry units, missing bricks or block, badly weathered or missing grout, broken, cracked, or loose bricks or block that may pose a safety threat. For stucco, badly cracked or chipped, severely weathered paint.





Fair- Siding is showing some signs of age, however, there is no missing siding. For wood siding, some boards may be rotted but not a majority of them, paint or stain is weathered in spots. For vinyl siding, some cracks or chips but few and far between. For aluminum siding, mildly dented in places, however not bent or hanging off of the building. For brick and concrete masonry units, the grout may be slightly deteriorating, however, the bricks or blocks are in good shape overall and there is no danger of them falling off of the building. For stucco, some minor cracks and deteriorating paint but not yet in a severe state of disrepair.





Good- Siding is in good shape with very few signs of deterioration. For wood and aluminum siding, there may be a few spots that need touch-up paint, however this should be very minor and the siding should not be rotted or dented at all. For vinyl siding, it should be in good shape with no chips or cracks, some mild "waviness" is allowable. For brick and concrete masonry units, the brick or block may be slightly discolored or aged,

however they should not be deteriorating at all and the grout should not show any signs of deterioration. For stucco, very little in the way of deterioration of stucco or paint.





Excellent- Should be brand new or show no signs of deterioration and should be installed in a workmanlike manner, with no "waviness". Brick should be clean and grout should be in excellent shape.

Fenestration





Poor- The majority of the windows (and/or doors) are broken, missing, boarded up, missing hardware, and/or not operational.





Fair- There may be one or two broken windows or boarded up window openings. However, the vast majority of fenestration should be intact and operational. Glazing on old windows may be deteriorating but no broken panes. Some screens may be missing or torn. There may be some weathered paint on doors, however, doors should be structurally intact.





Good- There is no broken windows or doors and no boarded up openings. Some very minor deterioration of paint on the door is allowable. Windows may be old but they should be in good shape. Glazing should not be deteriorating. For wood windows, paint or stain should be in good shape. Aluminum windows should not be dented or bent. Screens should all be intact.





Excellent- Brand new windows (usually vinyl), or old windows which have been refurbished. For old windows that have been refurbished, paint/stain and glazing should all be fresh.

Exterior Trim



Poor- Trim around windows and doors and/or fascia board badly needs paint, is missing or severely rotted.



Fair- Trim around windows, doors, and/or fascia is installed on the building. The trim may have peeling or flaking paint, however it should not be rotted or missing altogether.



Good- Trim around windows and doors and/or fascia board is installed on the building. It should be painted and in good condition, it might need some touch up paint in a few spots.





Excellent- Trim around windows and doors and/or fascia board is installed on the building. It should have no paint defects at all and be installed in a workmanlike manner, flush and with no gaps.

Porches/Decks





Poor- The porch may look severely weathered. It does not appear to be structurally safe and could pose a potential safety hazard. It may have shifted and settled and is no longer plumb or level (not to be confused with porches that are intentionally built with a slope for drainage). If it is a wood porch it may have a large number of rotted or missing boards, treads, railing, posts, etc. If concrete, it may be cracked or crumbling in spots.



Fair- The porch may have weathered paint or stain, or no protective coating at all and have exposed, weathered wood. It may have some minor defects such as a missing or rotted tread on the steps or a broken or loose railing. However, it should be structurally sound. It should generally be plumb and level and not leaning too much or in danger of collapsing.



Good- The porch should be plumb and level, with no missing or rotted pieces of lumber or crumbling masonry. It may have a few areas that need to be touched up with paint, no maintenance issues beyond this.



Excellent- The porch should be brand new or in excellent condition for its age. It should have no structural or maintenance issues and the paint should be in excellent condition. This rating would include porches with fresh lumber that have not yet been surface coated and are being left to weather for a year in order to better hold paint.

City of Marquette
Master Plan Update
Walkable Communities Element









Sponsored by: City of Marquette, Michigan

Prepared by: **Dan Burden, Walkable Communities, Inc.**

Date Prepared: **October, 2002**

City of Marquette Master Plan Update

Walkable Communities Element

Introduction

The City of Marquette is among the most remote and pristine settlements in America. Marquette's isolation and two decades of limited population growth have minimized sprawl pattern development. Most streets and neighborhoods are well linked. Housing densities support walking in most neighborhoods. Downtown Marquette is highly intact. Northern Michigan University is centrally located. The waterfront is centrally located to important commercial and service areas and most neighborhoods, and is in a healing process. These and other factors make Marquette an ideal study in how to revitalize, in fill and make whole and complete a walkable community.

Maintenance of quality of life is a key issue for the community. There is no better determinate and ingredient to maintain quality of life than carrying out a design to keep and expand the walkability of the City of Marquette.

However, residents are not entirely certain how to define a walkable community. Having sidewalks, good crossings and many linkages, trails and greenways, are important, but these are only a few of the vital and essential measures and ingredients of a walkable community.

Marquette also enjoys advantages as well as punishments of severe winter cold and snow extremes. Defining walkability under such harsh conditions further refines and defines the essences of walkability.

This report provides guidance on reducing unwanted, unsafe motorist bicyclist and pedestrian behavior. It also shares ways to make walking, bicycling more equal partners, and to return Marquette's streets to their former elegance. Before entering into design of master planning elements and features, all residents are asked to accept the premise that sprawl, traffic, environmental and social problems most often come from regional actions or inactions. Solutions therefore must be developed by all of the region's "stakeholders." Residents and property owners, who have much to gain from working together, are the backbone of finding workable solutions. Marquette must be the leader and model for finding workable solutions, but must forge early and often living partnerships with university, township county, regional and state leaders.



Residents identified dozens of issues, problems and needs that will be addressed. Solutions to these problems will determine walkability, bicycle friendliness, reduced auto-dependency, preservation of precious lands and establish essential active living and quality of life elements.

Disclaimer

The contents of this report represent the knowledge, experience and expertise of the citizens and author in providing ideas and concepts to improve safety, access, mobility and livability through land use planning, traffic management, linkage and other development strategies. This report does not constitute a standard, specification or regulation and is not intended to be used as a basis for establishing civil liability. The decision to use a particular measure should be made on the basis of an engineering and planning study of the location. This report is not a substitute for sound engineering and planning judgement. Adherence to the principles found in this report can lead to an overall improvement in neighborhood, bicycle, transit, motoring and pedestrian access, mobility, enjoyment and safety.

The Big Ten -- Most Significant Issues and Steps

1. Walkability and Quality of Life are tightly linked. Year 2000 census data reveals, American cities experiencing no growth in population during the 1990-2000 decade grew their traffic 25% during these years. Marquette owes much of its quality of life to planning decisions minimizing the amount of time residents are in motorized traffic, minimizing crossing widths of principle streets, and provisions for active living patterns accentuating walking and bicycling for all ages.

2. Roads to be kept small and well linked. Virtually all roadways either built or planned for multiple lanes (4 or more) can be compressed to two lanes with either a third lane scramble, or medians. A notable exception is U.S. 41, which should continue to emphasized its role as a major carrier of significant traffic volumes. This compression and retention of roadways into safer, more efficient two-lane roadways maximizes an affordable system, travel efficiency for all, while increasing access for all modes of transportation.

3. Poor land use practices rob from community values and priorities. Traffic counts on several of Marquette's roadways are at levels where new growth from sprawl and other poor land use patterns and practices will force declines in levels of service on these and nearby roads. Roads at risk include McClellan Avenue, Wright Street, Lincoln, Fair and Fourth Street North/Presque Isle Avenue. Marquette must pay close attention to all decisions that would generate more and longer trips, or reduce and compress trips. Close attention to this guiding planning and political practice will maintain Marquette's current equilibrium.

4. Land Use and Sustainable Development are regional issues. In order to maintain Marquette's quality of life strong highly communicative regional and inter-agency and inter-organization processes must be invented and put in place. Improper sizing and placement of schools, libraries, parks and big box retail will continue to grow traffic in undesirable ways, and risk levels of service, active living, squandering of precious land and the quality of life of all citizens, inside and outside the city limit.

5. Snow and its removal is a blessing and a curse. Snow is not only a primary reason for enjoyment of this special winter city and its season for being, it can act as a sensible reason for maintaining close-in, compact lifestyles and settlement patterns. On the other hand, failure to evolve the most advanced snow plowing, storage and removal solutions prevents Marquette from building many essential traffic management treatments, such as medians, curb extensions, refuge islands, raised intersections and roundabouts and on-street parking, to name a few. Marquette will need to become North America's leader in progressive snow removal practices. A modest investment here will be essential to carry out all phases of this master plan update, especially on-street parking.

6. As residents age there is a growing need for quality housing in a choice of central locations. These can be on or near the harbor, downtown and near the campus/university properties. Each of these areas will need many choices in housing stock, ranging from small and highly affordable to luxurious. Many can and should be in mixed use buildings where many conveniences are offered. Each of these locations should have a central public plaza and retail center. Dense housing of 11-30 du/a should be featured in the first 1/8th mile ring from the defined center, and the next 1/8th of 1/4 mile radius should have housing density at 6-8 du/a or higher. Ancillary units, such as "granny flats" or studio apartments should be included in this housing mix. Seniors should be surveyed to learn how many auto trips are made today, based on age. Once this percentage is known, it should be a goal of the plan implementation of doubling trips made by non-auto choices.

7. Land use patterns and practices must provide many choices of housing for students. Reduced vehicular traffic in and around the campus is essential to maintain roadway levels of service and compact widths. This can only be achieved if walking and bicycling are strongly favored with short travel distances from home to campus. Mixed use settlement, and many choices in housing are essential within 1/4 and 1/2 mile of campus. Housing densities near campus should be 11-30 du/a in the inner ring areas, and maintained at 6-8 du/a in outer areas. As part of the Master Plan update a survey should be taken of how students currently arrive on campus. This can be done with a show of hands in all classrooms on a given day. Once this percentage is known, it should be a goal of the plan of doubling trips made by non-auto choices.

8. School policies and practices must be updated. Nationwide home-to-school journeys by foot have fallen dramatically in recent decades. Poor long-term school placement and sizing strategies are leading to un-affordable, quality of life and active living lifestyles. Complete sidewalks within 1/4 of all schools. Create school drop-off patterns that minimize inconvenience and safety for those walking and bicycling. This may include a designated route for parents driving, and not allowing travel on certain streets, invoking "walking school bus" and "walking train" programs. Strong parental involvement is needed.

9. Parking strategies must change. The city should seriously evaluate its current parking practices and requirements. Off-street parking must be minimized in order to achieve proper infill, mixed use, compact housing and walkable scale solutions.

10. Many links and connections are needed. Despite having a good historic street pattern, there are many areas, especially near the campus and harbour where serious policies, practices and investments are needed to increase the ease, safety and convenience of walking and bicycling.

Livable Streets, Walkability and Quality of Life

Livable Streets is all about reducing speeds of motorists, improving traffic flow, increasing safety for pedestrians and motorists, improving the all-season ability to have comfortable, convenient transportation choice. Healthy streets require appropriate travel speeds and traffic distribution. Traffic calming returns safety, mobility and access to people. It creates a level playing field for all modes of travel, increases property values, and improves livability for everyone. Most importantly, these efforts require neighbors to take ownership of their streets and public spaces and work together to provide the best solutions.

Easy Solutions

- Add crossings, retain parking, improve student/parent drop-off and pick up zone behaviors.
- Create orderly movement around school and campus zones.
- Address local and school problems at mid-block locations and intersections with horizontal and/or some limited vertical deflection tools.
- Use bike lanes or paint white lines on the right-hand side of roads to visually narrow lane widths. Ideal lane widths are 10.0 feet or less.
- Plant trees within right-of-ways that will grow into tree canopies.

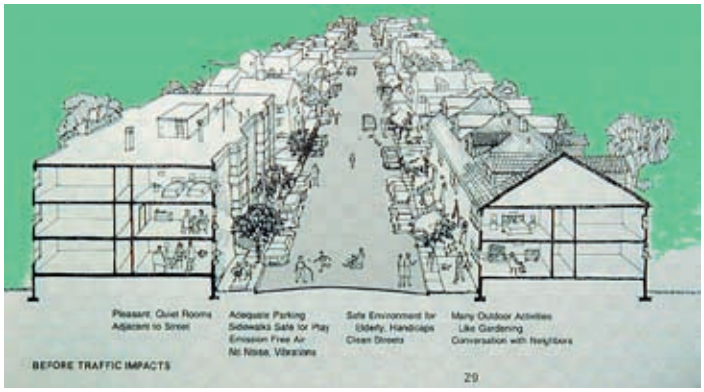
Why People Speed

- Not enough walking and bicycling links exist within neighborhoods. Too many walking barriers.
- Streets are too wide and straight in appearance.
- Drivers are using residential streets as "cut-through" routes to travel elsewhere in the city.
- Blocks are too long.
- Streets appear sterile or barren of trees
- Too many stop signs and signals.

It is important to recognize that as a city takes on traffic calming projects in its neighborhoods, some residents will be frustrated by their inability to speed through residential areas. Oftentimes drivers do not realize they are habitually speeding until they are physically prevented from doing so. Travel times to everyday destinations may become greater during peak hours, and this delay may become an issue for residents of neighborhoods as well as for cut-through drivers. Residents and city officials should understand that this perceived inconvenience is a trade-off for all the benefits that come from slower speeds in neighborhoods and the beautification that traffic calming and traffic management devices can provide.



Residents on all streets report that where they live they seek low speeds, low volumes and low noise of traffic. These same people may be inclined to drive too fast on other people's streets.



Research in the San Francisco Bay area by pioneering traffic calming researcher, Donald Appleyard determined that as speeds and traffic volumes increase there is a corresponding drop in the number of friends, associates and even physical areas of the street that people associate or identify with. Some excellent examples of ideal street life are found on San Francisco's Noe Street, where Donald Appleyard performed some of his earliest work. Ironically, Donald Appleyard was later killed in a traffic crash. After a nearly 40 year lull in serious traffic calming efforts, it is time for Marquette to take the energy of the Marquette people and breathe new life into these important and sensitive streets.

While traffic calming reduces noise, beautifies areas and tends to put people more at ease, its primary goal is safety. When traffic travels slowly on traffic-calmed streets, fewer and less severe accidents occur. The number of pedestrian, bicycle, and automobile accidents drop as much as 40%-93%. For this reason, residents of traffic calmed neighborhoods will notice more people walking, biking, roller blading and enjoying other activities because they feel comfortable on their streets. More "eyes on the streets" help reduce crime and discourage unacceptable behavior, making neighborhoods safer for everyone.

Over twenty tools have been identified which create positive affects within neighborhoods and on their fringes. These tools have been identified and described in the publication, "*Streets and Sidewalks, People and Cars: The Citizen's Guide to Traffic Calming*" by Dan Burden. A copy of this report can be purchased from *www.lgc.org*. Dan has also prepared a short guide to which of these tools can be used on local streets, school streets and arterial roadways (See page 9).

Proper traffic calming planning requires a good deal of education for neighborhood residents. Residents understand what the problems are in their neighborhoods, but very few people in the United States understand traffic calming and correct tool applications. Before receiving traffic calming training, residents will often ask for stop signs and/or speed humps. Both of these tools have been proven to have negative effects on neighborhoods and, in fact, increase speeding. When people are forced to stop where they do not believe it is warranted, they feel punished. Most motorists will spike their speeds to try to make up for lost time.

Some neighborhood residents feel so violated by cut-through traffic that they request closing streets to prevent nonresidents from using their neighborhood streets as arterials. Typically street closures shift traffic to other neighborhood streets. Street closures frustrate neighborhood residents more because they often have to drive twice as far to get to their destinations and this directly impacts residents several times per day. It is important to remember that stop signs, speed humps and street closures hinder emergency response times and accessibility. Street closures should be used only as a last resort, if other tools have been tried and nothing works.







Noe Street is near Nervana. *Originally designed to draw families to a former lackluster area of San Francisco, the street traffic calming of the 60's was a financial success, and is now home of prosperous and respected professionals.*

Emergency Response

Concern is often raised that some emergency responders may object to some suggested traffic calming treatments. It is essential to include emergency responders in all planning, and to do this in early stages. Responders have much to gain from correct application of tools, and especially the removal of unwarranted stop signs. To gain their acceptance, however, requires close coordination, training and other ongoing efforts.To be efficient, emergency responders need: (1) well placed stations; (2) many points of access to neighborhoods; (3) minimal interruptions on arterial and collector streets and their intersections; and (4) minimal interruptions on local streets. Although local streets are of lesser importance than arterials, collectors and major intersections, they still influence response times.

Responders strive to reach emergencies within 4 minutes of notification. In neighborhoods that have been traffic calmed, small ambulances and response vehicles have less problem maintaining access and efficient times than larger engine trucks and aerial ladder trucks. All over the world, police and fire agencies are moving toward buying more small vehicles for reasons of efficiency and accessibility.

In 1999 Dan Burden developed a video to show how to ensure emergency responders' ability to navigate through traffic calming devices. The project also measured amounts of time it took to get through devices. Below is a chart that represents the findings of that study. The values are based on delays at devices, where there was no device, including a stop sign or traffic signal.





The following delays can be expected for large vehicles:

Device	Delay Time
Stop Signs	6-11 seconds
Speed Humps	6-11 seconds
Speed Tables	6-11 seconds
Small Roundabout	4-5 seconds
Neighborhood Roundabout	4-6 seconds
Chicanes and other horizontal tools	2-3 seconds
Curb radius reduction	0-3 seconds
Gateways	0 seconds

Traffic Calming Tools by Location

Local

1. Curb Extensions
2. Medians
3. Refuge Islands
4. Tree Wells
5. Inset Parking
6. Narrow Lanes
7. Midblock Crossings
8. Curb Radius Reductions
9. Bike Lanes
10. Roundabouts
11. Modified Intersections
12. Median Noses
13 Driveway Modifications
14. Lane Reductions
15. Mini-Circles
16. Speed Tables
17. Raised Intersections
18. Short Medians
19. Medians on Curves
20. Partial Closure
21. Chokers
22. Chicanes
23. Speed Humps

School

1. Curb Extensions
2. Medians
3. Refuge Islands
4. Tree Wells
5. Inset Parking
6. Narrow Lanes
7. Midblock Crossings
8. Curb Radius Reductions
9. Bike Lanes
10. Roundabouts
11. Modified Intersections
12. Median Noses
13 Driveway Modifications
14. Lane Reductions
15. Mini-Circles
16. Speed Tables
17. Raised Intersections
18. Short Medians
19. Medians on Curves
20. Partial Closure
21. Chokers
22. Chicanes
23. Speed Humps

Arterial

1. Curb Extensions
2. Medians
3. Refuge Islands
4. Tree Wells
5. Inset Parking
6. Narrow lanes
7. Midblock Crossings
8. Curb Radius Reductions
9. Bike Lanes
10. Roundabouts
11. Modified Intersections
12. Median Noses
13. Driveway Modifications
14. Lane Reductions

















































Pedestrian Safety and Traffic Calming Principles

Marquette can benefit from a menu of traffic calming solutions. As a general rule this plan calls for highly affordable, minimal intrusion, solutions first and foremost. Adding stop signs, speed humps, and street closures, which are highly invasive tools, are not recommended, nor needed. Indeed, there are so many negative impacts from such "reactive" tools that they should be seen as a last remedy in almost any community.

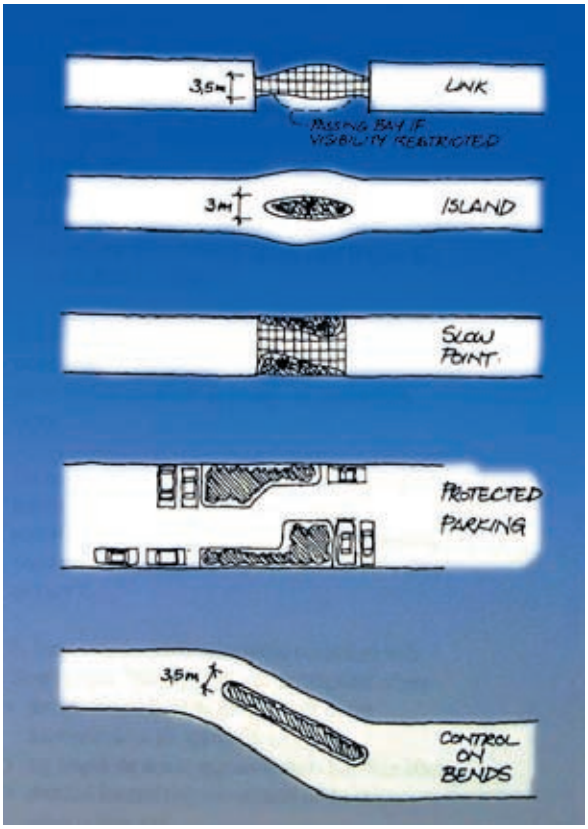
System-Wide Tools

Traffic calming should be applied holistically. This plan calls for a series of steps addressing specific concerns, but which do not simply move a problem from one location to another. Thus, when measures are proposed for Pine Street, they are also to be applied to other north/south roads such as Third, Front and High.

Meanwhile, by following the key recommendations of this plan and removing four way stop conditions at key intersections some improved flow and reduced noise will occur. Suitable replacement devices include mini-roundabouts, full roundabouts, curb extensions, chicanes and related tools.

Temporary Measures

As a general rule temporary features are discouraged, especially if they can not be made attractive. Quite often residents react to the low-quality visual image of a temporary curb extension or mini-circle. If these measures can be made attractive and functional, then test or interim measures may be considered. These measures should remain on the ground for a minimum of three months before their study is considered complete. They should not be placed if there is no ability to provide design and construction of permanent, attractive solutions. The City of Marquette should develop a suitable family of traffic calming tools and recommended street forms and features to update its Master Plan. An appropriate investment in a dozen or more sites can be made in the next 1-3 years.

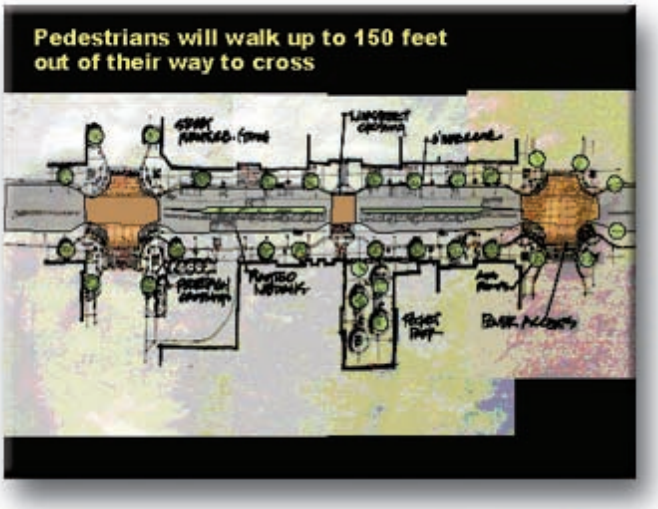


Traffic calming tools create visual effects on long, straight road sections, interrupt visual lines, or create deflections to slow motorists to safe speeds.



This hillside street is stark and void of trees and landscaping. It's complimentary street (below) is beautifully decked in trees and shade. The contrast in aesthetics and driver behavior is a classic study of what helps and hurts a neighborhood.

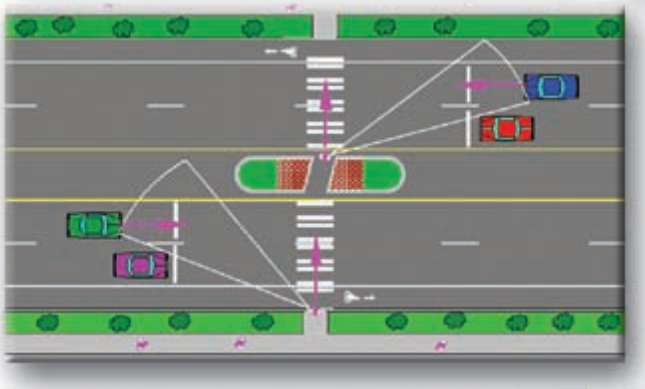




People seek frequent crossing points. Most people will walk 150 feet to get to locations rewarding their arrival. The best shopping districts arrange crossings each 300 - 400 feet.

Break crossings into separate threats. Median or refuge island crossings can be angled 45 degrees. This forces people to look at motorists before stepping into their path. It adds to storage space, and prevents running across





On Multi-lane roads refuge islands are essential. Set stop bars back 40-60 feet to prevent unintended screening when a motorist yields, blocking the view of the second motorist.

Enhanced signing and imbedded flashing lights can be used selectively to special crossing locations where added attention is needed. These can be either pedestrian activated, or triggered by presence of people.











Marquette appears confused on parking issues. Areas where parking would reduce speeding (near schools) removes parking. Other overly wide downtown streets limit parking. Quality infill development calls for substantial shifting of parking policies ... to eliminate most off-street parking in time, and to greatly increase efficient and convenient on-street parking with curb extensions to narrow pedestrian crossing widths. Scene above, snowy Bend, Oregon.

Other Recommendations, Including Public Process and Priorities

Neighborhood Master Planning

Many of America's best cities are now learning to develop master plans for each neighborhood. Marquette is of a size and pattern to permit from 5-7 neighborhoods to be identified and refined based on needs inside each neighborhood.

A master plan is needed for each neighborhood. Special funds or special staff can be allocated to help each neighborhood arrive at a common vision and master plan. The advantages of this approach include:

Creating a vision allowing staff, planning commissioners and city commissioners to make decisions based on the problems, issues needs of its residents and business people in highly specific areas of the community.

Minimizing problems and NIMBYism when facing important but controversial issues, such as street designs, on-street parking, intersection designs, infill development, school bonding issues and more.

Allowing a method to identify, network and train citizen leaders, who will overcome many of the fears normally found when neighborhoods are facing change.

Increasing public involvement and public ownership of important issues facing Marquette as it moves towards its goal to become a community of high quality of life, active living and sustainable practices.

Improved ability to apply for and win important government and foundation grants for being a community that has sub-area master plans, networks, visions, commitment and a means to carry out tough issues of change and quality of life decisions.

Improved efficiency, strength and depth in gaining public trust and support (maybe affection) for its staff and elected leadership, and more popular acceptance of design and construction of important projects.

An ability to overcome stagnation and paralysis of important public works, public improvement and public good projects.

Improved ability to forge lasting public/private partnerships with key developers -- who need all the support they can get to build key infill projects.

Implementation Steps

Community master plans work best when formal methods for carrying out their visions are implemented. Indeed, lofty words on paper for needed treatments are far less valuable to communities than inventions and adoptions to processes to overcome fear of change. Many communities are built to ho-hum, sprawl patterns which are always the easiest routes to quick and efficient growth and development. Quality, sustainable streets, public space, buildings and neighborhoods of take much work and by its definition, forces change and uncertainty. The secret to places of the heart is that many people have learned to work together, to fuel and sustain their interest, and then train their volunteer replacements when they are approaching burnout.

Successful community master plan implementation includes new methods in public process, consensus building, the sharing of a common vocabulary, training of citizens, and an identified process for incorporating any dissenters without allowing their voices to overpower the approved process adopted by the community. All too often elected leaders listen to and respond to former high school bullies or smooth talkers that never represented their classmates. These individuals have a role to play in any society ... But their voice should never overpower conscientious citizens who have learned how to improve their community.

The Walkability Element to this Master Plan process has led to consensus building, workable solutions, and effective partnerships between stakeholders and City of Marquette staff and leadership. The following additional steps are recommended. Following these steps provides assurance that issues will be properly addressed, costs will be minimized, and results have maximum effect. If ownership of problems is still weak or lacking, don't give up! The following steps are vital.

(1) Form City of Marquette Vision Team. At the concluding workshop on the group endorsed strong support for active leadership and regional action on key issues. There are many issues and complications in carrying out master plan updates. Important steps need to be taken, such as creation of neighborhood boundaries, training courses and programs guiding master plans and sub area plans.



(2) Develop Neighborhood Master Plans. As mentioned earlier in this document, communities benefit by having clear plans, expectations, networks and process for carrying out their own vision. Each neighborhood learns to cooperate with other neighborhoods seeking community-wide solutions. Neighborhood leaders learn to value training and how to assist all in their neighborhood to cooperate with one another and become active participants in change.

(3) Review Plans. A coordinating team working in conjunction with each neighborhood team, is responsible for maintaining the integrity of neighborhood plans, and making certain these plans meet broader community goals and needs. These people should coordinate and guide modest, noncontroversial changes that maintain neighborhood support. In some cases this team meets with property owners at or near the locations of proposed treatments. In some cases one tool may be substituted for another, or a tool may be relocated from one property to another.

(4) Education and Survey. Planning commissioners should expand their role, expertise and methods for reviewing changes to the community. Scheduled site visits by all members of the commission and key staff should preceed all meetings.

(5) Training and Leadership. The community should develop a training curriculum, set of events and other activities reinventing the culture of change. Cities like Portland and Seattle have many speakers, curriculum at colleges, and a weekend long series of workshops held each year to training and certify neighborhood and community leaders. Progressive ideas require a solid cadre of volunteers and others to help the more intrepid increase their comfort level as change occurs.

(6) City Commission Review and Approval. City commissioners must communicate and coordinate their decisions in close liaison with neighborhood leaders, planning commissioners and staff. My discussions with a number of people from the community suggests that there is a serious breach of communication, coordination and trust between these key groups. Many important citizens feel frustrated ... Even alarmed at the failures for these important groups to listen and respect the care and dedication of the work of these important groups.

(7) Neighborhoods are Involved in Plan Review. Once detailed plans reach 30% completion, each neighborhood team should complete reviews, noting any appropriate changes. Once approved, these plans and final construction can go forward.

(8) Model Programs. In order to prove that each element of the master plan can work at broad scale it is essential to prove each element at a project scale. For instance, McClellan and Fair Avenues is an appropriate area to test the safety, efficiency and overall performance of a roundabout. Other areas are ready to test for installation of bike lanes, narrowing of travel lane widths, and other treatments. It is important to get many of these treatments on the ground within one year of their adoption. Each treatment needs to be evaluated for overall effectiveness in achieving community goals. It is important to state up front what the performance measures are for each treatment. For instance, does adding reverse-in diagonal parking to a portion of Baraga Avenue add 40% more parking, slow traffic speed and noise to acceptable levels without creating any noticeable backup in traffic? Some evaluations can be made in a half day or so, while others require significant observations and data.

The intent of this appendix is to provide important general information regarding municipal policies concerning the development, construction, and maintenance of public utilities and transportation facilities. To that end, this appendix includes a summary of the infrastructure systems that are subject to the Capital Improvements Plan, as well as the Complete Streets "Guiding Principles" and the resolution that created this policy. Also, a placeholder is established to provide for the inclusion of summary data from the traffic study that is still underway as the draft of this document comes to a close in early 2015.

Capital Improvements Program

The City of Marquette Capital Improvements Plan (CIP) is an annually updated six-year plan of programmed projects for the rehabilitation, replacement and expansion of the City's municipal infrastructure systems. Investments covered under the CIP are the physical foundation of government service delivery, including the road infrastructure, water and sewer systems, sidewalks, multi-use paths, bridges, and buildings to house government services, police and fire stations, parks and recreation facilities. Decisions about capital investments affect the availability and quality of most government services. This infrastructure is often taken for granted, yet is a cornerstone of the city's economy, with implications for health, safety, and quality of life.

During 2015 the City of Marquette senior management staff will be proposing changes to the process of developing and reporting the CIP, in order to better integrate the funding of major infrastructure investments with other investments/expenses and revenues, and to provide a more comprehensible report document for the public, staff, and appointed and elected officials.

Definitions:

Capital – Assets, material and/or property owned, operated and/or maintained by the City.
Capital Improvement – New or expanded facilities that are relatively large in size, expensive, and permanent.
Capital Improvements Plan (CIP) – A document that identifies needs associated with the city's infrastructure assets, and schedules projects to address those needs for a six-year period based on prioritization of the needs, and availability of financial and staffing resources.
Capital Improvements Program - Multi-year scheduling of public physical improvements. Includes the CIP.
Fiscal Year - From October 1st of any year until the following September 30.
Infrastructure - Basic facilities, services, and installations needed for the functioning of the community. These include the transportation systems, sanitary and water lines, parks, public buildings, etc., and the land affiliated with those facilities.
Master Plan - A guide for making decisions regarding the future physical development of the City and the implementation of plans, policies, and programs. The master plan provides broad recommendations for improvement of many elements of land use and transportation, including essential citywide facilities.

Projects considered to be capital improvements are large, expensive and relatively permanent in nature. They often place a continuing financial burden on the City (maintenance, operations, energy requirements, legal responsibilities, etc.). Major Capital Improvement Projects are large investments in new infrastructure, or major replacement of existing assets. These projects are too large to fund using regular annual revenues, and require long-term financing such as bonds or State Loan Programs. Examples of the major capital projects in the study include total street reconstruction projects, bridge projects, water and sewer plant upgrades, new government buildings or upgrades to existing government buildings.

It is important to note that the CIP does not address all of the capital expenditures for the City. Instead, it represents only the major projects in the foreseeable future. Items such as vehicle purchases, small paving jobs, playground equipment, and items and services defined as operational budget items, which are financed out of current revenues, are examined separately according to budget procedures.

Routine Maintenance, Repair, and Replacement Projects are how investments are protected both now and in the future. Maintenance, repair and replacement projects are part of the normal year-to-year expenses associated with the utility infrastructure, owning buildings, and other capital facilities. They include repairs and minor replacements to the water, sanitary, and storm water systems. They include street repairs, crack filling, and overlays. They include repair and replacement of building components such as boilers, ventilation systems or recreation facilities. They also include repairs to the bridge structures. Repair and replacement projects are predictable and unavoidable expenses that occur throughout the life of the infrastructure, and are usually paid for out of current revenues through the annual budget process.

A multi-year Capital Improvements Program (CIP) provides a solid framework for City-wide efforts towards the maintenance, improvement, and extension of physical development for the City. Through analysis, evaluation, and tutilization of the Geographic Information System (GIS), a cost effective prioritization of the City's physical development needs can be achieved. Each year, all projects included within the CIP are reviewed, and a call for new projects is made. Adjustments are made to existing projects arising from changes in the amount of funding anticipated, conditions and/or timeline needs. A new year of programming is also added each year to replace the year funded in the annual operating budget, and projects that have been completed were included with this plan to show the progress of the program.

It is now a well told national story that a myriad of problems and staggering costs are the result of neglected and deferred physical development needs in many communities throughout the country. The City Master Plan provides goals to address these concerns and reverse the trends. And a strong commitment to funding is necessary to prevent a decline in meeting the needs of the community's infrastructure.

Primary Infrastructure Assets

The six primary categories of City of Marquette owned-and-operated infrastructure assets, plus public buildings and grounds, are summarized below. They include the following:

- Sanitary Sewer System
- Water System
- Street System
- Sidewalk/Pathway System
- Stormwater System
- Bridge System
- Public Buildings and Grounds

The following information was presented in the last (2013) version of the CIP. While some information is now outdated, this section provides a detailed overview of City infrastructure.

Sanitary Sewer System

The City of Marquette sanitary sewer collection system is comprised of 88.5 miles of sewer lines, approximately 2,092 manholes, and 10 pump stations which ensure the flow of wastewater to a treatment facility. Together, these elements provide for the collection of household, business, and industrial wastewater (from toilets, showers, sinks, processing, etc.). This collection system transports on average 3.2 million gallons of sewage to a municipally owned treatment facility on a daily basis.

This connection system is comprised of pipes, pumps, and manholes. The sanitary sewer system is an important component in making sure contaminated water does not enter into local ground water aquifers or Lake Superior. Proper maintenance, repair, and replacement of this collection and transportation system fulfill an environmental stewardship commitment the City has pledged to its citizens. The system is also monitored and reviewed by the Michigan Department of Environmental Quality to ensure the highest quality of work.

During the last 33 years and since 1980, the City of Marquette has replaced or extended 36.3 miles of sanitary sewer and associated manholes. The cost for the work has been $13.7 million dollars. In 2004, all existing pump stations necessary to operate the system were updated and improved. This investment of more than $2.5 million dollars should provide efficient and reliable service for the next 20 years from these pumping facilities.

In 2011 the City installed a sanitary sewer lift station at Lakeshore Boulevard (Island Beach Road) to service the residents who were currently reliant on septic field type systems. The lift station and the extension of over 5600 lineal feet of gravity and force main sewer piping has provided a public sanitary sewer system for these residents.

The current cost to replace and extend sanitary sewer including restoration, street surface, and sidewalk is approximately $127 per linear foot.

In reviewing the year each section of sanitary sewer was constructed within the City, it is known that 6.2 miles of the system currently exceed 100 years in age. Over the next ten years, 1 mile of additional sewer lines will exceed this threshold.

The City has reduced average costs to replace sanitary sewer lines by using trenchless construction methods. This construction method is appropriate in situations that have reoccurring root problems, infiltration, maintenance problems, and cracked or missing sections of pipe. During the years from 2006 to 2012 the City has slip lined over 17.9 miles of sanitary sewer at a cost of $3.2 million dollars. The average cost for slip lining is $28 per linear foot. Due to this aggressive program coupled with the normal reconstruction projects the influent flow to the wastewater treatment plant has been cut by approximately 700,000 gallons.

In 2007 the Marquette Area Wastewater Treatment Facility (MAWTF) started construction on improvements that addressed treatment process deficiencies as well as building and grounds upgrades. The improvements and major expansion upgrade were completed in the fall of 2009. The upgrade addressed new and more stringent effluent limits which were imposed by the Michigan Department of Environmental Quality (MDEQ). The upgrade also included the replacement of aged and failing equipment/process systems that were installed in 1978.

The MAWTF upgrade was funded by the MDEQ State Revolving Fund Program at a cost of $16,146,000. In 2012 the Marquette Area Wastewater Treatment Facility (MAWTF) completed the biosolids storage enclosure for a cost of $445,000. This facility was required by the Michigan Department of Environmental Quality (MDEQ) to meet the 180 days biosolids storage requirement. The Marquette Area Wastewater Treatment Facility is operated by the city of Marquette and is owned by the City of Marquette (85%), Marquette Township (10%), and Chocolay Township (5%).

Water System

The City of Marquette water system is comprised of 99.1 miles of water mains, sub mains, and hydrant leads, 890 hydrants, 3150 gate valves, 3 pump stations, and 2 storage tanks which hold 2 million gallons of water. Together these system elements form transportation and delivery service which brings treated Lake Superior water to all homes, City businesses, and institutions for daily use. The system also supplies portions of Marquette Township. Clean, adequate, and dependable water form the basis of healthy living (not present in much of the world) and productive household and business operations. On average this system delivers 3 million gallons of water on a daily basis and can deliver 7.0 million gallons of water per day at a maximum output. This system is also monitored and reviewed by the Michigan Department of Environmental Quality to make sure citizens are receiving water that meets or exceeds all state water quality standards.

In the last 32 years, the City of Marquette has replaced or extended 43.1 miles of water mains. The cost for the work has been $14.1 million dollars. Hydrants are typically replaced as part of a reconstruction project or when they become damaged, obsolete, or unserviceable. Elevated storage tanks receive periodic cleaning, repainting, and maintenance service. In 1997 the Marquette Water Filtration Plant Upgrade changed the existing unfiltered system to a Micro Filtration Membrane system at a cost of $7 million dollars.

In 2006 the 2 pump stations had equipment upgrades and the addition of water system monitoring instrumentation. The monitoring instrumentation was also included with the two storage tanks. The cost for the pump station and storage tank upgrades was $700,000 dollars. In 2007 the Marquette Water Filtration Plant replaced the membranes and other plant equipment for a cost of $1.4 million dollars. Also in 2007 the Lincoln Tank was refurbished by means of existing paint removal and new paint being applied to the outside and inside surfaces. Some minor work was done on the concrete base supporting the tank. This was completed at a cost of approximately of $230,000.

In 2011 the City incorporated trenchless technology and the use of directional drilling on part of the Lakeshore Boulevard water main extension project. Over 2500 lineal feet of HDPE piping was placed using this process under the Dead River.

The current cost to replace and extend water main including restoration, street surface, and sidewalk is approximately $132 per linear foot.

In reviewing the year each section of water main in the system was constructed, it is known that 6.6 miles of the system currently exceed 100 years of age. Over the next ten years, 2.8 miles of additional water main will exceed 100 years in age.

Streets

The City of Marquette street system is comprised of 90.5 miles of gravel, asphalt, and concrete roads. Together these streets connect residents' homes to local business, educational facilities, highways, and City buildings and amenities. Current roads and proposed projects provide for the traffic volume experienced and anticipated.

Together these streets provide a means of transportation through the entire City as well as connecting motorists to surrounding Townships including; County Road 550, Hwy. U.S. 41, and other easy access roads leading out of the City. Continued maintenance, repair, and replacement of the streets are an obligation of the City to keep motorists safe. Every year the City of Marquette replaces or extends streets to provide safe and efficient travel. In the previous 30 years and since 1983, the cost of this work has been $37.6 million dollars.

The current cost to replace and extend streets is approximately $90 per linear foot.

Recently, all 90.5 miles of road have been surveyed using the Pavement Surface Evaluation and Rating (PASER) system. This system involves collecting data by assessing road roughness, surface distress, surface skid characteristics, and structure. By combining the information the City can develop a plan based on the budget. PASER is based on a 1-10 scale with (1) being extremely bad condition and (10) being excellent. Currently in Marquette, 9.7 miles of street were rated in the (2) to (3) range, which are areas in need of complete reconstruction. These are the roads that have cracking, rutting, distortions, and potholes which will need to be reconstructed in the near future.

The above replacement schedule is based on an estimated average life span of a street being 45 years. To achieve a 45 year life the City will need to perform yearly preventative maintenance such as crack filling and interim heavy maintenance such as pavement mill and overlays, usually after 15 to 20 years of use. Therefore, this heavy maintenance also needs to be planned for on an annual basis. Currently in Marquette, 26.1 miles of street were rated in the (4) to (5) range which will require heavy maintenance. The annual goal for heavy maintenance of the City's streets per the Capital Improvement Plan is 2.0 miles per year. Based upon today's cost of $52 per linear foot, $600,000 will also be needed on a yearly basis to achieve this goal. The lack of heavy maintenance will result in the addition of roads that will require reconstruction at an increase in cost of almost double over heavy maintenance costs.

Currently in Marquette, over 18.2 miles of street are rated in the (6) to (7) range, which are areas in need of preventive maintenance. These roads have minor transverse and longitudinal cracking and would benefit greatly from a preventive maintenance program. This past construction season was the fourth year that the City has incorporated a preventive maintenance program with the introduction of overband crack filling. Over the past five years the City has had over 37.6 miles of roadway crack filled under this program at a cost of $181,241. The use of the overband crack filling method will increase the useful service life of a street by more than 3 years. This program with the addition of other needed preventive maintenance programs such as chip seals and micro surfacing will cost between $ 100,000 and $150,000 per year. Funding to achieve this level is not available from existing revenues. Highway departments have found that each dollar spent on preventative maintenance saves up to ten dollars in future rehabilitation costs.

A sound road asset management program protects the taxpayers' investment, lowers life cycle costs, delays future deterioration, extends pavement life, reduces user delays during reconstruction, and improves the overall functional condition of the road network.

The City of Marquette has approximately 6 miles of gravel streets and alleys. The 2009 construction season upgraded 3420 linear feet of gravel streets with asphalt pavement, concrete curb and gutter, and storm water infrastructure. The continuance of this program is important in reducing maintenance costs, preventing sediment from entering the storm sewer system, streams, and Lake Superior, providing an urban environment for the residents, reducing air borne particulates, and providing a street surface that is safer for travel.

Sidewalks

The City of Marquette sidewalk system is compri sed of 68.1 miles of concrete sidewalk. There are also 944 accessible street corners (includes multi use path crossings), constructed so residents can easily and safely cross at street intersections. Marquette has routinely replaced or extended sidewalks throughout the City to enforce the idea of a walkable community. The cost for this work since 1980 has been $3.7 million dollars.

Popular areas such as the water front, downtown, and the University are centrally located, providing a good opportunity for pedestrians to be linked between these areas and the surrounding neighborhoods by the walkways. With the lack of sidewalks in some neighborhoods, consideration should be given in the future to require sidewalks on new or reconstructed road designs, particularly near the City's key amenities, such as schools, parks, beaches, multi-use paths, business districts, medical centers, and the University campus.

The current cost for sidewalk repair, replacement, and extension is approximately $55 per linear foot.

Within the past year, all 68.1 miles of sidewalks have had an in depth walking survey. At that time 600 feet of sidewalk was reported in "poor" condition. Residents who may be walking, biking, skateboarding, or operating a wheelchair in these areas can injure themselves by tripping on elevations, cracks, or holes in the walkway. The remaining 68.1 miles were classified as "fair" to "good". Out of 944 sidewalk/street intersections, all 944 have handicap accessible ramps in a least one direction in good condition.

The sidewalk system will be surveyed on a systematic basis to ensure that areas that are in "poor" condition can be replaced when funding is made available. The 2012 construction season extended over 2400 feet of sidewalk along McClellan Avenue from Waldo Street to Wright Street. The 2013 construction season extended over 260 feet of sidewalk along Wright Street from Neidhart Avenue from Vanevera Avenue. The Safe Routes to School Project extended over 2500 feet of sidewalk along Mesnard Street from Tierney Street to Altamont Street and along Altamont Street from Mesnard Street to Jackson Street for a total grant cost of $160,230.

Pathway System

The City has approximately 18.1 miles of multi use paths. In 2008 approximately 3,800 feet of bike path that had been constructed in the mid-1970's was overlayed along Lakeshore Boulevard and Hawley Street. The 2008 bike path overlay projects exceeded the goals for

repair and replacement of the bike path system and in retrospect negated having to meet this goal on an annual basis.

In the past it was determined that to maintain the existing system, The City should attempt to replace/repair 3,000 linear feet per year at $25 per linear foot for a yearly cost of $75,000. Currently the lack of large scale maintenance on the pathway system warrants the reevaluating of this goal by the introduction of a pathway condition survey. Currently any minor work required along the west pathway system can be handled internally by the Public Works Department.

In 2008 the Linear Park Bike Path Extension from Seventh Street to McClellan Avenue was completed. This project was completely grant funded through the State of Michigan at total cost of $713,000 and extended the bike path system 4,175 feet. The multi use path along Lake Street from Hampton Street to the Carp River was completed in 2011. This project was completely grant funded through a State of Michigan Enhancement grant at a total cost of $220,000. In 2012 the multi use path was extended along the west side of McClellan Avenue from Grove Street to Vistanna Drive. This extension provides a connection to the pathway overpass near Vistanna Drive for those school children who walk to school and may not feel safe crossing at Grove Street. This extension was paid for by a State of Michigan TEA grant and funding matches by MDOT and the City of Marquette.

Stormwater System

The storm sewer system in the City of Marquette by definition in its ordinance is: "All rivers, streams, tributaries, and lakes including Lake Superior, within the City limits of the City of Marquette and all City-owned storm sewers, curb and gutter, culverts, retention and detention facilities, lift stations, treatment units, and all other appurtenances now and thereafter existing, used or useful, in connection with the collection, control, transportation, treatment, or discharge of stormwater. The stormwater system does not include sewers or facilities connected with the sanitary sewage disposal system or streets."

The City's storm sewer infrastructure consists of approximately 52.8 miles of piping, 1,390 manholes, 5 treatment structures, and 2,575 catchbasins. In addition, the City owns or is responsible for 11 detention ponds and approximately 2.6 miles of ditches. There are 18 discharge outlets to Lake Superior from the storm sewer system.

In 1994, the City of Marquette enacted a stormwater utility to charge user fees to all properties discharging run-off into the City's system. The ordinance is structured as an enterprise fund with the intention and goal of a self-sustaining utility maintaining the stormwater system.

In 2012 the City took on a major construction project with the extension of McClellan Avenue from Fair Avenue to Wright Street. In doing so Raney Creek had over 520 feet of the original stream bed restored, 2.3 acres of wetlands were recreated along McClellan Avenue and at the Presque Isle Bog area, and three retention basins were constructed. In addition hundreds of feet of bioswale along with numerous blind catch basins were constructed along McClellan Avenue to utilize green technology and reduce storm water runoff into the sewer system.
Since 1994, the City has installed or replaced 18.3 miles of new storm sewer piping including required manholes, catch basins, and curbing for a cost of $10.4 million dollars.

The current cost to replace and extend storm sewer including restoration, street surface, curbing, and sidewalk is approximately $150 per linear foot.

Bridge System

The City currently has three bridge structures; one concrete boxed beam bridge (1988) on Hawley Street over the Dead River, one camel-back bridge (historical-1920's) on the Hawley Street bike path over the Dead River, and one pre-stressed I-beam bridge (1984) on Lakeshore Boulevard over the Dead River. The City also has under its jurisdiction various large diameter three-sided pre-stressed concrete culverts that function as bridge structures. Two are located at Founders Landing (2004) over the Whetstone Brook, one is located on Lakeshore Boulevard near Lakeview Arena (2004), one is located on the Seventh Street extension over the bike path (2008), and one is located over the Raney Creek on Center Street (2012).

As with most structures, bridges have a useful service life and need to be maintained to extend this useful service life. The useful service lives for the vehicular bridges are approximately 45 years. This varies with climate and temperature fluctuations. The useful service lives of the pedestrian bridges are approximately 30 years. This can vary as with the vehicular bridges.

The City of Marquette has been inspecting the bridge structures on a two year cycle per the Federal Highway Administrations National Bridge Inspection Standards. The three-sided pre-stressed concrete culverts do not require inspection per Federal Requirements but as part of the inspection program these structures are also inspected.

Maintenance activities are often more cost effective when the concrete is still in relatively good condition and is focused on those parts of a structure that face the most severe exposure conditions. Preventive maintenance addresses causes of the potential deterioration, as opposed to treatment, of the effects of deterioration. For example, sealing the deck surface reduces the infiltration of chloride. Proper preventive maintenance activities can reduce the rate of deterioration, extend service life, and reduce future repair costs. Responsive maintenance activities help to keep bridges operating safely and efficiently.

At present a maintenance program for the bridges is not in place. It is known that the camel back bridge at Hawley Street and the pre-stressed I-beam bridge at Lakeshore Boulevard currently require some maintenance repair activities. Due to the recent inspections by the use of infrared technology and other techniques areas of concern with "delamination" on the CR550 and Lakeshore Boulevard bridges were determined to be severe enough to warrant funding under the 2013-2014 budget. Delamination is a process where salt laden water enters through cracks in the deck surface and corrodes the concrete and steel reinforcing. The structural repair costs along with the application of a sealant on the bridge decking during 2013 cost $104,000. Yearly inspection will provide a basis for the integration of a maintenance program for our bridge structures.

Buildings and Grounds

A long range plan for sustaining City programs, services, and facilities would be remiss if it did not commit to a schedule of regular investment into the maintenance and repair of public buildings and grounds. A 1990 special report commissioned by the American Public Works Association indicates, "An appropriate budget allocation for routine M&R (maintenance & repairs) for a substantial inventory of facilities will typically be in the range of 2 to 4 percent of

the aggregate current replacement value of those facilities, (excluding land and major associated infrastructure)."

The report goes on to encourage that, "Periodic condition assessment is an essential step in effective facilities management….adequate M&R funding based upon recognition of the full costs of ownership is a prerequisite of the publics' assets…" This is an area which requires attention. Based upon the recommendation by the APWA referenced above, the City should be budgeting approximately $569,000 to $1,138,000 annually for maintenance and repairs to these public buildings. Since the above mentioned 1990 report was written these figures have changed due to inflationary and material/labor costs causing these percentages to increase.

Six Year Capital Improvement Plan

The City has made a considerable effort to develop a six year plus plan for the replacement and maintenance of its infrastructure systems. City departments have assisted in the development of a public buildings and grounds replacement maintenance schedule. These plans coordinate information contained in City records, visual reviews, and the experience and knowledge from the employees who work on and maintain these systems. These six year plans attempt to implement the maintenance and replacement schedules previously discussed in this report. The following chart re-caps the recommended maintenance and replacement schedules outlined in the 2004 City Master Plan:

Infrastructure System	Valuation/ Miles in Place	Annual Maintenance or Replacement Recommended	Est. Annual Expenditures	Fund
Sanitary Sewer	88.5 miles	1.0 mile	$ 672,000	Sewer
Water	99.1 miles	1.0 mile	$ 700,000	Water
Street	90.5 miles	2.0 miles replace or extend	$ 950,000	Local/Major/General
Street		2.0 miles-heavy maintenance Preventative Maintenance	$ 600,000 $ 100,000	Local/Major/General
Gravel	6 miles	3,700 linear feet	$ 333,000	Local/Major/General
Sidewalks	68.1 miles	.6 miles	$ 174,000	General
Pathways Maint.	18.1 miles	3,000 linear feet	$ 75,000	General
Pathways Extension		.5 miles	$ 216,000	General
Storm water	52.8 miles	varies	$ 610,000	Storm water
Bridge System		varies	$ 50,000	Local/Major/General
Building & Grounds	$28.3 Million	2%	$ 552,000	General

The six year Capital Improvement Plan makes specific recommendations on replacement and maintenance projects (see CIP document, refer to the tables that have been arranged per priority by location for the street and utility infrastructure systems). The priority locations have been arranged through years of input and represent the locations that require funding to offset additional deterioration, emergency repairs, and reactive maintenance. Failure to continue the City of Marquette's aggressive infrastructure replacement program will likely result in higher costs for maintenance and increased financial hardships for future generations.

Funding for Capital Improvements

A review of capital project funding is necessary to show how projects have been paid for in the past. Two schedules are included in the CIP document – Amount Available for Capital Outlay and Debt Issued. The first schedule attempts to provide some insight into how much actual money the General Fund has to expend for capital outlay. After adjusting for various one-time revenue sources and for transfers out to other funds, the year-to-year amount varies in a considerable range from a negative $1.6 million to a positive $1.7 million over the ten years of history presented. The ten year average is a positive $89,784. Further adjustments smooth out the year-to-year variability. In FY 2003, the negative $1.6 million is brought to -0- when considering the amount used from the General Fund to cover damages from the Dead River Flood were approximately $1.6 million. After further adjusting for this variability, the average over the ten year time frame for the 'net available for capital outlay' would be close to $250,000.

The biggest variable in determining 'net available for capital outlay' is the amount expended each year for transfers out to other funds. The less the General Fund has to transfer to other funds the more it has to expend for capital outlay. Some of the transfers out are being used to fund capital outlay projects in the Major and Local Street Funds. Transfers to these two funds in 2012 were down from previous years due to the timing of projects being completed. In the past nine years, no major capital outlay projects have been included in the City budget unless there has been a grant source or some type of debt financing available or both.

The second schedule shows a twenty-nine year history of debt issued as of June 30, 2012. The current maturity dates range from 2014 to 2032. The City has taken full advantage of lower interest rates and has refunded every bond issue possible. These refundings have resulted in significant savings from when the bonds were originally issued.

Unless some other major revenue sources are implemented (such as increased property taxes, greater use of special assessments, or an income tax collection program) or decreasing expenditures in some fashion (such as decreasing the need for the General Fund to cover operations in other funds) or a combination of increased revenue and decreased expenditures, the General Fund will only be able to fund major capital outlay through the use of grants and/or borrowing. Projections in the utility funds (Storm water, Water, and Sewer) are no different. Capital outlay projects will need to be financed through grants, borrowing, raising user charges, decreasing operating expenses, or some combination of these. The City has taken advantage of the State Revolving Fund (SRF) and Drinking Water Revolving Fund (DWRF) which provides low-interest financing for Sewer and Water Projects. Projections of continuing to use these two financing sources are not favorable as money available to be loaned out is decreasing and competition for funding to other municipalities is increasing.

In 2012, the City Commission established a policy for debt management that attempts to limit the issuance of new debt each year to the amount of debt projected to be paid off in that year. The current limit is currently projected at $4,000,000. In addition to budgetary factors discussed above, this debt issuance "cap" will also be a factor in the amount of major capital outlay projects that can considered.

Complete Streets Resolution and Guiding Principles

As discussed in Chapter 5, the City of Marquette policy on Complete Streets (Policy #2011-03) is a critical instrument for ensuring that the street network is constructed and reconstructed to provide for personal mobility by multiple modes of transportation. This policy marks a significant advance concerning the intended design of public roadways, and acknowledges that all users of public roadways in the City of Marquette - regardless of their mode of transportation - are equally important and should be facilitated in their travel to the extent possible in the road design and maintenance.

RESOLUTION ADOPTING COMPLETE STREETS GUIDING PRICIPLES AND SUPPORTING THE STATE OF MICHIGAN COMPLETE STREETS INITIATIVE AS OUTLINED IN PUBLIC ACTS 134 and 135, OF 2010.

WHEREAS, "Complete Streets" means roadways planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive device, foot, or bicycle; and

WHEREAS, "Complete Streets" is also a design framework that enables convenient and comfortable travel for pedestrians, transit patrons, bicyclists, and motor vehicle operators, across a wide spectrum of ages and abilities; and

WHEREAS, streets constitute a large and valuable portion of public space, and the development of facilities to accommodate non-motorized travelers provides multiple benefits to individual travelers and may offer substantial long-term cost savings to communities when all direct and indirect (externalized) costs are accounted for; and

WHEREAS, streets that safely integrate multiple transportation choices – including walking, bicycling, public transit, and motor vehicles – support community stability; and

WHEREAS, Complete Streets Guiding Principles encourage planning, designing, constructing, operating, and maintaining transportation systems that promote safe and convenient travel for people of all ages and abilities; and

WHEREAS, the Michigan Legislature passed Complete Streets legislation in 2010 that amended PA 33 to require the Michigan Department of Transportation and local governments to consider all users in transportation and related projects, and to establish facilities for non-motorized transportation when a highway, road, or street is being constructed, reconstructed, or relocated unless specified conditions exist that constitute an exemption; and

WHEREAS, the Marquette City Planning Commission considered this resolution on April 19, 2011 and supported its forwarding to the City Commission; and.

WHEREAS, the Marquette City Commission has determined that it is in the best interest of the City of Marquette for this resolution to be APPROVED.

NOW THEREFORE BE IT RESOLVED by the Marquette City Commission:

FIRST: That the City of Marquette, Michigan adopts the Complete Streets Guiding Principles as shown in Exhibit "A" attached hereto and made part of this resolution, and that said exhibit is approved and adopted; and

SECOND: That the City of Marquette staff shall incorporate appropriate references to the Complete Streets Guiding Principles into relevant guidance documents including but not limited to the Community Master Plan, and the City Code; and

THIRD: That the City of Marquette staff will review all further guidance in this matter from the Michigan Department of Transportation as it becomes available; and

FOURTH: That the City of Marquette will, to the extent feasible, incorporate Complete Streets design considerations and practices as a routine part of infrastructure planning and implementation.

DATED this 9 day of May, 2011

Signed: _____
John P. Kivela, Mayor

"Exhibit A" that is mentioned in the "First" resolution above was formatted as a City Commission Policy after the Resolution was adopted. That policy follows:

COMPLETE STREETS POLICY

PURPOSE:
The purpose of this policy is to help ensure that every public right-of-way shall be planned, designed, constructed, and maintained such that each resident of the City of Marquette will have transportation options to safely and conveniently travel to their destinations.

POLICY:

- Each phase in the life of a roadway, including planning, funding, designing, constructing, operating and maintaining of new and modified streets, will be an opportunity to improve the integration of all transportation modes into the roadway.
- Sound engineering and planning judgment will produce context sensitive designs that will account for the unique circumstances of different users, streets, neighborhoods, and activity centers.
- The transportation network should be planned and constructed as a well-connected system that encourages multiple connections to destinations.
- Facilities for all modes, including pedestrian, bicycle, public transit, and motor vehicle, should be constructed to the standards of the American Association of State Highway and Transportation Officials (AASHTO) on all roadways as required or as a minimum standard. Where permitted, designs for such facilities from other authorities may be used on a pilot-project basis as approved by state authorities and/or the City Engineer.
- When possible, context sensitive streetscape plans that incorporate appropriate native plants and landscaping materials should be developed whenever a street is newly constructed, reconstructed, or relocated.
- Complete Streets may be achieved through single projects, incrementally through a series of small improvements, or through maintenance activities.
- Complete Streets principles may not apply to maintenance activities designed to keep assets in serviceable condition (e.g., mowing, sweeping, snow removal, and spot repair, or interim measures on detour or haul routes).

STRATEGIES:

- Complete Streets Guiding Principles will be considered when developing, amending and updating City plans, manuals, rules, regulations and programs, as appropriate.
- Identify and document existing and potential funding sources available for achieving the vision of these Complete Streets Guiding Principles.
- Utilize inter-departmental project coordination to promote the most responsible and efficient use of fiscal resources for activities that occur within the public right-of-way.
- Include a mechanism in the transportation element of the Community Master Plan for tracking implementation of "complete streets" facilities constructed.
- Train relevant City staff on the content of the Complete Streets Guiding Principles and best practices for implementing them.

Traffic Study Summary Data / Information

The Planning Commission will amend this section of the CMP to include pertinent summary data and basic information from the traffic study that is being conducted in the city presently (winter 2015), at its earliest opportunity during its annual review of the CMP.

City of Marquette

Third Street Corridor Sustainable Development Plan



Prepared for:

City of Marquette &
Marquette Downtown Development Authority

Prepared by:

Gibbs Planning Group
B. Dennis Town Design
Dede Christopher
PlaceMakers
Street Plans Collaborative

Draft 5.0

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B Process

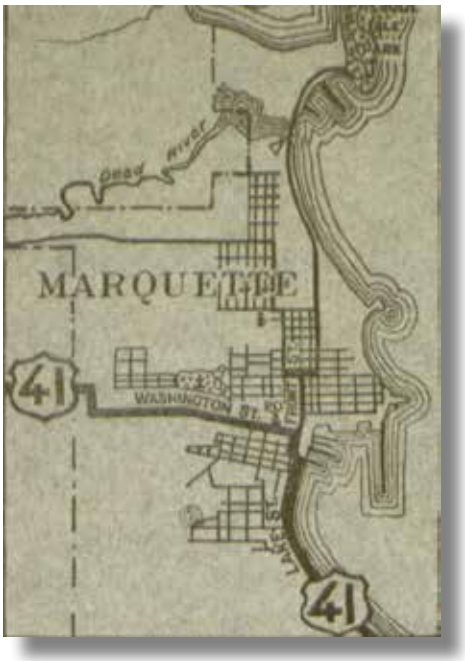
C Vision

D Action

E Form-Based Code



Historic Aerial of Third Street Corridor shows the clear rural to urban transect that can be protected and enhanced by a new Form-Based Code.



This 1927 map of Marquette clearly shows compact neighborhoods around a central downtown, as well as the importance of the Third Street Corridor

A Introduction


Third Street Village Corridor
Third Street Village Corridor
Corridor Project Area
City of Marquette Engineering Department Geographic Information Systems Created on 8/19/2011
Lake Superior
Northern Michigan University Campus
Corridor Project Area
Third Street Village Corridor
Downtown Area
Lower Harbor
Overview Map
Lake Superior
City of Marquette
Marquette County



WHY PLAN THIRD STREET?

The *Third Street Corridor Sustainable Development Plan* will enhance and support Placemaking efforts for the creation of a vibrant, resilient, mixed-use corridor that links downtown Marquette with Northern Michigan University and surrounding neighborhoods.

The goals for Third Street Corridor Sustainable Development Plan Project are:

Provide more Transportation Choices

Promote Equitable, Affordable Housing

Enhance Economic Competitiveness

Support Existing Community and Neighborhoods

Leverage Investment

This comprehensive process and plan leads to recommendations for action, one of which is a draft Form-Based Code embodying the Vision that Marquette citizens crafted during the charrette workshop.

It is clear that, in spite of major efforts and success of the last 10 years in redeveloping Marquette, the existing zoning codes are working at cross-purposes with the desire for sustainable, mixed-use, pedestrian oriented urbanism in the Third Street Corridor. There are many strategies for fixing this undesirable condition, from trying to repair the existing code, to new design standards, to the many varieties of Form-Based Codes. This process allowed the community explore these alternatives and then find the best solutions for Marquette and its Third Street Corridor.

A fundamental part of reforming zoning is to have a strategic Vision Plan, and the Charrette enabled citizens and consultants to explore in three dimensions the implications of any changes, as well as confirming Marquette's Vision for the future of the Third Street Corridor. The Vision identified by the community led to a concise and achievable set of implementation strategies that ensures the plan becomes a reality.

ISSUES EXPLORED



DEFINING STREET SPACE

Very few people can 'see' planning through maps and words. During the charrette and in this booklet care was taken to show photos, models, and sketches that described the space between buildings, blocks, and streets. This makes it evident where buildings and street walls need to be in order to define the spaces that make walking interesting, safe, and convenient. Many times it is as simple as adding a fence or hedge.



KEEPING AND ENHANCING CHARACTER

Third Street has developed a character over time that is a mix of pitched-roof houses and flat roof commercial buildings. The plan and Form Based Code encourages keeping this character and enhancing it where possible with both easy to do Tactical Urbanism strategies, i.e., paint, parklets, and a zoning code that places new buildings and additions in the right place and with the right form.



CREATING AND INTEGRATING VIABLE CIVIC SPACES

Northern Michigan University with the Superior Dome sits at one end of the Third Street Corridor, but residents must go to the downtown for the next important civic open space, like that in front of the County Courthouse, and there are few other non-eroded public spaces to enhance commercial and residential activity along Third Street. This plans proposes to integrate passive or active recreational activity through well located and designed quasi-civic spaces, such as the lot next to Frosty Treats, provided public-private partnerships can be accomplished.



TAMING THE CAR, ENCOURAGING WALKING, BIKING

Traffic and parking are usually at the top of citizen's concerns in any town. Along the Third Street Corridor, this is evident in the desire to manage the amount and speed of through traffic, allow for the peaceful coexistence of pedestrians, bikes, public transit and vehicles, and create the unachievable utopia of a parking space for everyone right in front of where they wish to go. The plan makes realistic recommendations about bike lanes, bike corrals, parklets, additional parking through re-striping, and a shared parking strategy.

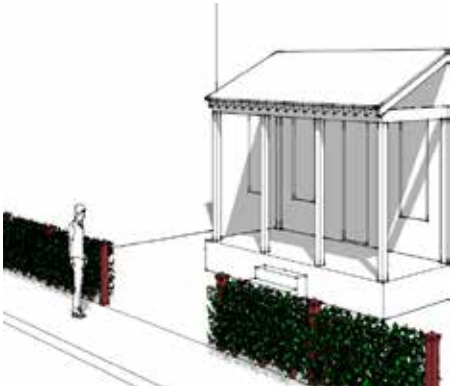
ISSUES EXPLORED



HOUSING, RETAIL AND BUILDING TYPES

The Third Street Corridor plan shows possible locations for both new buildings and types of buildings (live/work, apartment, etc). This will increase the diversity of housing types as well as retail spaces on the street.

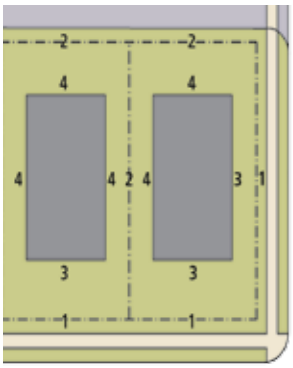
The retail occupancy is strong, with few vacancies. There is an opportunity to continue to market new spaces to retail that supports the character of Third Street, and avoid the destructive nature of suburban-style retail.



FORM-BASED CODES

Marquette has experience in Form-Based Code in its Downtown. Form-Based Codes should not be one-size-fits-all, but rather calibrated to the character of each neighborhood and location along the Corridor. The charrette provided a forum for discovering the several characters of Third Street, and to get feedback on proposed height, build-to lines, use and other elements that are appropriate.

Section E presents the draft Form-Based Code.



TACTICAL URBANISM



It can be difficult in today's economy to get funding for private and public initiatives, creating actual gaps in the urban fabric that go unfilled. Tactical urbanism is a set of strategies for doing what is possible now, with limited funds, to increase urban life and definition.

This can be a simple as using a fence or elaborate as a dining deck / parklet. The plan indicates locations where this seems useful; however, this is a set of tools that can be used all along the Third Street Corridor.

Seeing things happen immediately after planning maintains enthusiasm.

How to Use this Document



A INTRODUCTION

This section summarizes the document and the issues involved in the Third Street Corridor Project. It acts as a guide to the other sections.



B PROCESS

This section describes the process followed by the consultant team to work with the City officials and local citizens to develop a Vision Plan and draft Form-Based Code.



C VISION

This section describes the plan and supporting documents developed during the four day community charrette. A block by block plan illustrates all of the ideas produced, with specific recommendations for transportation, Tactical Urbanism, parking, and Form-Based Code.

How to Use this Document

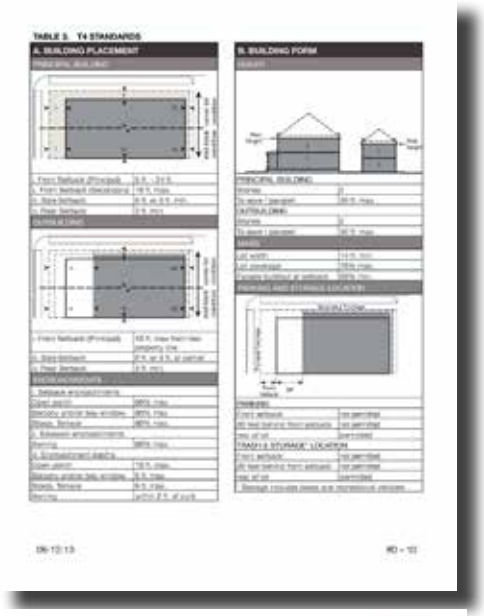


D ACTION

This section contains a short list of three timeframes. NOW - what is possible to do immediately. SOON - what needs to be done in the very near future. LATER - what is important but will take longer.



All of the effort of process and gathering a Vision Plan for the Third Street Corridor is to agree on what is the desired character, and to make it both legal and easy to achieve.



E FORM BASED CODE

This section is the draft Form Based Code for Third Street Corridor. Review this document to confirm that it will produce the desired character and revise as needed.



This historic photo on Ridge Street, a few blocks from the Third Street Corridor, shows the charm and vitality of a complete street, with bikes, pedestrians, and especially street trees. The planting and maintenance of trees is fundamental to the success of Form-Based Codes as well as human health and happiness.



The Farmers Market at Marquette Commons is a great example of tactical urbanism that contributes to civic exuberance.

B PROCESS



Sketchup study model of Third Street Corridor to look at existing conditions

THIRD STREET CORRIDOR PROCESS

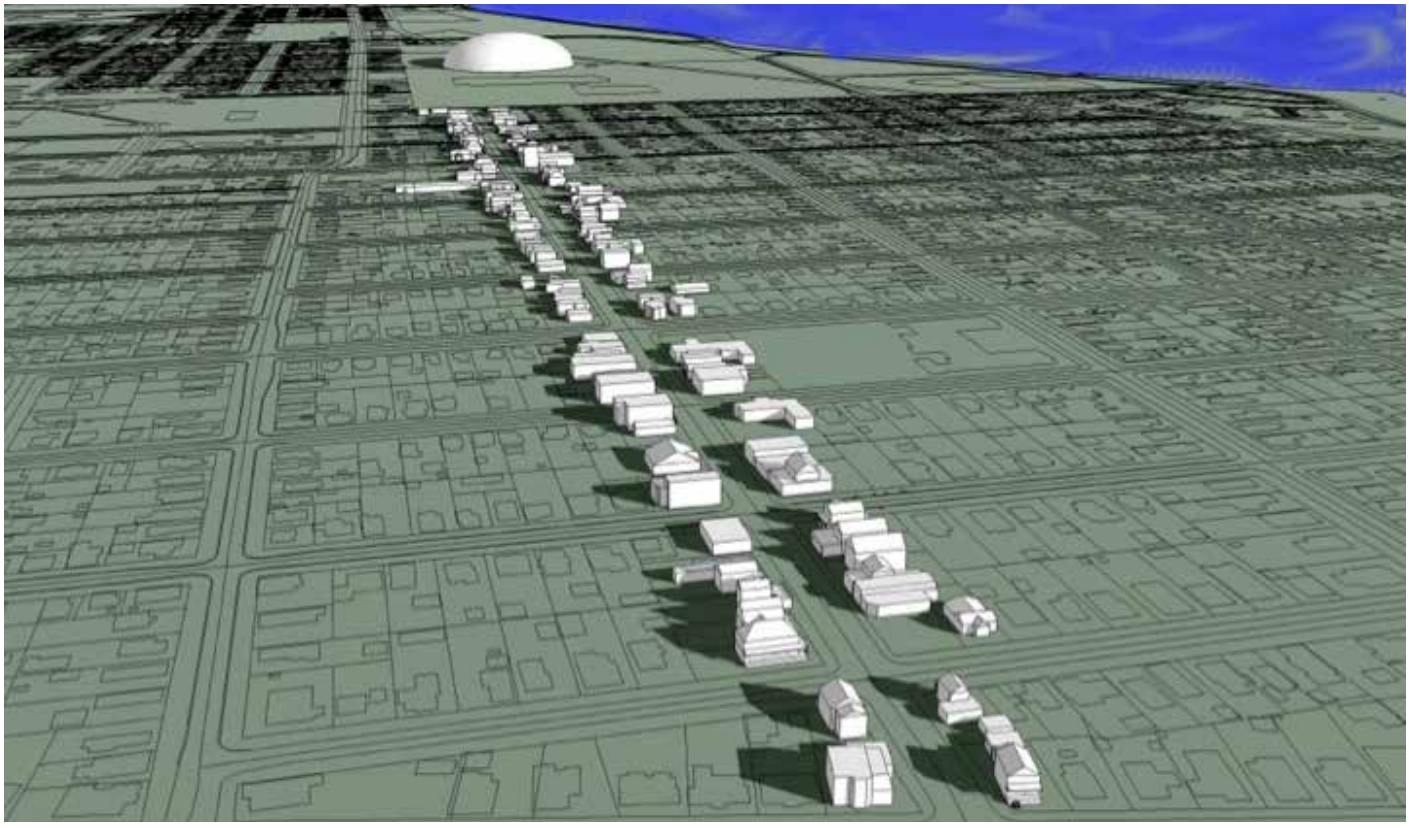
The planning process provided a comprehensive approach to addressing existing physical conditions, land use patterns, infrastructure needs, market opportunities, public preferences and future implementation actions necessary to fulfill the potential of the Third Street Corridor.

The scope and methodology is based on understanding the community and experience with similar projects regionally and nationally. Working with City staff, local officials and boards, key stakeholders, and the general public to ensured that the final strategic plan and implementation tools met the long term goals and Vision for Marquette and its Third Street Corridor Plan.

The approach consisted of a multi-step process consisting of three principal phases:

PHASE ONE - data gathering and analysis phase
PHASE TWO - public engagement/charrette
PHASE THREE - follow-through, documentation, and the presentation of the work.

Each phase looked at the resources, tools and assets available, as well as current and emerging trends in the market, to be leveraged in pursuit of long-term growth potential and economic stability. Special attention was paid to those physical, social and cultural attributes which distinguishes Marquette's Third Street Corridor from other communities in the region, around which a coherent model of market differentiation can be established.



City of Marquette - Community Master Plan

PHASE ONE

PROJECT GOAL I -- DATA COLLECTION AND ANALYSIS.

The consultant team conducted a "kick-off" meeting with City representatives to review the overall process, clarify logistics, identify relevant materials and data, and to identify key stakeholders. The consultant team collected and evaluated information pertaining to the physical characteristics of the study area including:

- Identifying, contrasting, and comparing zoning adopted by communities of similar size and character as Marquette MI.
- Using digital photography, satellite images, and existing City documents, inventoried the building stock within the study area, including a visual assessment of structural and physical conditions, and gathered data for building size and current use.
- Provided an outline assessment of the existing road network and traffic conditions based upon on-site observations and a review of existing reports and studies, including a parking inventory and evaluation of the pedestrian environment, walkability and multimodal transit potential for the City.

The team met with some of the stakeholders coincidental with the initial visit, to help identify specific issues to be addressed during the Phase Two design and planning process.



City of Marquette - Community Master Plan

Phase One

Data Collection

Using the resources of the Community Development Department the consultant team mapped and evaluated the existing land uses, motorized and non-motorized transportation network, and building form in the Third Street Corridor. The City's base GIS and aerial maps were used to produce diagrams for possible land use, natural systems, green infrastructure, roads and sidewalks, building types and other instructive analysis for the project.

A helpful tool for this project was the translation of GIS mapping into a 3D Sketchup model to produce a analysis of the corridor to show various options for height, bulk and building type to inform decisions about Form-Based Codes.

Scale & Type of Development

The images to the right are two different areas of Marquette. On the near right, is the project area of the Third Street Corridor. On the far right is suburban development at the eastern edge of Marquette Township, to the west of the City of Marquette.

These two images make it clear that there are two different, and incompatible, ways to develop. The Third Street model is one of interconnected streets, walkability (sidewalks), mixed-use, and a fine grain of small to medium size buildings.

The suburban model is single use, car-dependent, large box, excess asphalt and hard to adapt over time.

Without a Form-Based Code, Third Street is in danger of losing its neighborhood character and becoming more suburban over time.



City of Marquette - Community Master Plan

Meetings and Presentations

Information was gathered in late April from City staff, key stakeholders, property owners, tenants, business owners, the university, local investors and the Downtown Development Authority.



Workshop for preference survey at NMU.

Northern Michigan University Student Input

Students emphasized creating a destination through bicycle infrastructure, improved building design, and pocket parks.

Prompted by image boards, students identified priorities for the future of Third Street. Amongst students there is most support for mobility, notably as it pertains to bicycle infrastructure and public transportation. With demand for bike-lanes, bike racks, and even mention of a bike share program, it is clear that students often chose the bicycle as a means to move around town. Public transportation was also emphasized, with similar mentions of trolleys and buses, as a way to get around town when the weather turns cold. Along the lines of mobility, students also suggested wider sidewalks, improved street crossings, and provisions for off-street parking. All mentions of mobility issues considered, students have identified a preference to transform Third Street into a corridor that is friendly first to pedestrians and cyclists, but also accommodates public transportation and car access through off-street parking.

As for design considerations, students enumerated a variety of preferences for Third Street, yet placed significance on maintaining the "small town feel" and historical nature of Marquette. Further explorations will need to seek consensus around design, but some opinions suggest that students are open to two-storied buildings, unified or consistent building design, second floor apartments, and an urban feel. These considerations will also have to take into account preferences for some current conditions such as: unique buildings, detached housing, and rural character. Perhaps most important is that students want Third Street to be a destination that supports pedestrian activity and community events like a farmer's market or art fair.

Students expressed the need for more greenery and green space. Street trees, plantings, flowers, and pocket parks were all mentioned as way to improve the natural elements of Third Street and align it with the more informal feel of a Upper Peninsula Michigan town.

Last, students would like to see food-based events such as a food truck rally, and a farmer's market when the weather warms up.







Students emphasized creating a destination through bicycle infrastructure, improved building design, and pocket parks.





Provisions for an enhanced pedestrian experience included small town feel, bike lanes, and places for social activity.






Students would like increased public transportation during winter months, and community events such as a food truck rally, and a farmer's market when the weather warms up.

Results from Northern Michigan University Student Input Sessions

Student Input	Mentions
Bicycle Infrastructure *Bike Lanes, Bike Racks, Bike Share*	14
Public Transit *Bus or Trolley*	8
Keep Small Town Feel	8
Wider Sidewalks	7
More Greenery *Street Trees, Plantings, Flowers*	6
Taller Buildings *Limited to two stories*	5
Parks and Green Space *Pocket Parks, Open Areas*	4
More Parking Availability *Parking Structure, Off-Street Parking*	4
Better Pedestrian Environment *Space for Activities, Outdoor seating*	4
Improved Street Crossings *Clearly Marked Crosswalks, Visibility of Oncoming Traffic*	3
Building Consistency Setbacks, Façade	3
Urban Architecture or Feel *E.g. Traverse City or Grand River in East Lansing*	3
Maintain Historical Significance *Traditional Building Design and Materials*	3
Promote Local Businesses *Local Business Development, "Mom and Pop," No Strip Malls*	3
More Housing Options *Second Story Apartments, Apartment Complex*	2
Create a Destination *Draw Students From Campus, New and Exciting*	2
Farmer's Market	2
Community Activities *Art Fair, Street Music, Public Speaking*	2
Food Trucks *Variety of Vendors*	2
Individuality of Buildings *Unique Façade, Not All Buildings At Same Setback, Keep Houses*	2
Compactness *Convenience in Cold Weather*	1
Avoid Strip Malls *Unique Buildings Create Open Air Market Out of Existing Strip Mall*	1







Third Street Retail Observations

The Third Street corridor is a thriving local commercial district that is providing the surrounding employees and residents with many of the goods and services they need and desire. The area has virtually no vacancies and most businesses reported strong sales. Third Street's approximate 185,000 square feet of commercial space offers a wide selection of dining, groceries, retail and services and would be classified as a Neighborhood Center by the shopping center industry. However, Third Street is considerably different from a shopping center in reach and appeal. It offers a walkable village setting with interesting retail, services, and an especially wide selection of popular restaurants. This unique combination of commerce and walkability attracts visitors from the greater Marquette region, rather than the two mile trade area of a typical neighborhood shopping center.

The district has a favorable surrounding employment and residential base of Northern Michigan University, Marquette General Hospital and the East and West Neighborhoods. The university includes over 9,000 students, many whom walk along Third Street on a regular basis. The hospital is one of the region's largest employers and located only one block west of Third Street. The adjacent neighborhoods and downtown area include 16,000 people and 6,500 households. Most of these nearby families living within a 10 minute walk of Third Street have an average household income of $51,500 per year. Nearly 10 percent of the nearby households earn over $100,000 per year.

Given observed and reported consumer trends, many businesses rely on purpose driven trips, where the customer drives or walks to that specific destination and returns home, rather than visiting Third







Local Third Street Merchants

Street for an extended time of shopping. This activity creates an expectation for convenient parking, as the visitors may run into the pharmacy, florist or bagel store for a quick purchase. Some businesses are adding drive-through windows and razing adjacent homes to install larger parking lots to improve accessibility to drive-by shoppers. Some business owners indicated that parking is their primary challenge. With little publicly provided parking, their private lots are frequently filled by visitors to surrounding restaurants and bars.

As a result, Third Street is gradually transitioning from a walkable neighborhood shopping district into a suburban-like shopping center comprised of free standing businesses, disjointed from each other and the surrounding neighborhoods. Eventually, this may lead to less walking and more driving, increasing the need for more parking lots and resulting in a loss of the corridor's unique walkable appeal.

Recommendations:

- Reinforce Third Street's neighborhood business mix
- Maintain the street's walkability and eclectic character
- Provide small public parking lots throughout the corridor
- Continue or expand DDA's marketing and beautification
- Provide businesses with referrals to organizations that may assist with visual merchandising, marketing and operations assistance
- Consider targeted business retention and recruitment programs
- Maintain and expand on-street parking spaces
- Consider meters if needed in prime blocks

PHASE TWO

CHARRETTE

The team conducted a design charrette to familiarize public zoning concepts and vocabulary and obtain public input on preferred form and character of development in the Third Street Corridor. The Charrette structured a number of individual tasks and meetings around a public design charrette, broken down into three sub-phases: Pre-charrette, Charrette, and Post-charrette.

The Pre-charrette phase allowed the team to present its initial findings and recommendations to the City of Marquette including a summary of previous plans and studies, such as the Community Master Plan, Zoning Ordinance, Nelson/Nygaard Downtown and Third Street Parking Study among others.

Marquette Third Street Workshop Schedule *Draft 5.0*
All Events at Marquette Commons: Washington & Third Street

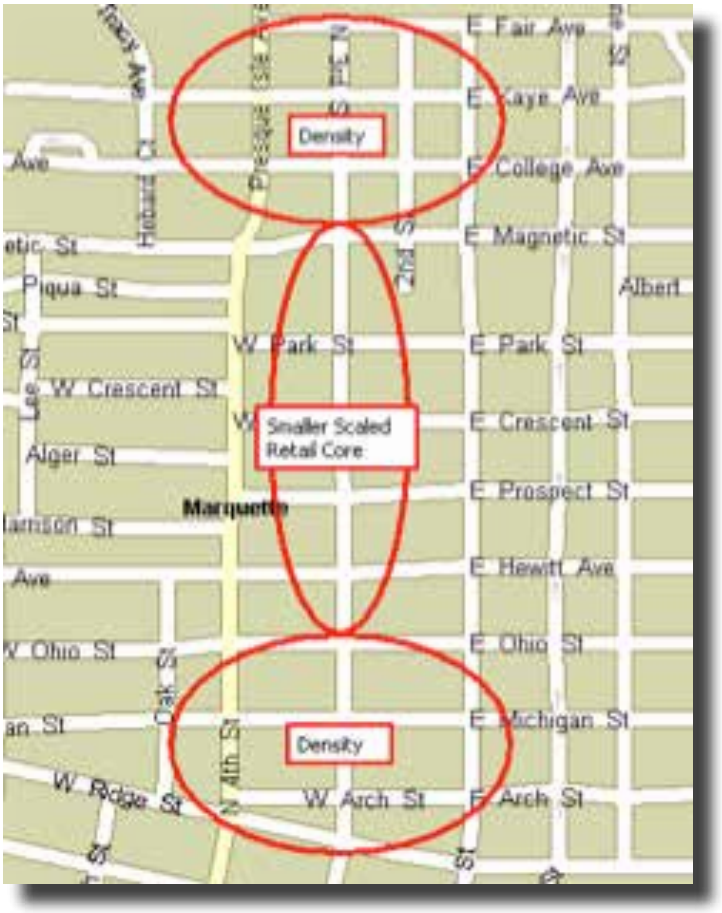
	Thursday May 16	Friday May 17	Saturday May 18	Sunday May 19	Monday May 20
9:00 am-Noon	Team Travel Studio Set Up Team Tour Team Meeting No Public	Team Meeting Planning & Design	Planning & Design in Studio	Planning & Design in Studio	Team Planning in Studio
Noon-2:00		**Noon Public Lecture** Bill Lyon Streets Team Planning	**Noon Public Lecture** Susan Henderson Place Making Lecture Business Interviews along 3rd	Studio Closed Team work Off site	**Noon Public Lecture** Bill Dennis: Building & Town Design Team Planning Studio Closed to Public
2:00-4:00		Interviews in Studio	Planning & Design in Studio		
4:00-6:00		Planning			
6:00-8:00	**Public Opening Lecture & Community Visioning**	Public Plan Review 1.0	Team Plan Review – Dinner in Studio	Public Plan Review 2.0	6:00 pm **Public Closing Lecture**
8:00 –10:00	Team Planning & Design	Planning & Design	Planning & Design	Planning & Design Team Only – Closed Studio	Team Dinner



The Facebook page for The Third Street Plan served as a conduit for citizen ideas and information

COMMUNITY CONVERSATION SUMMARY
(COMMUNITY VISIONING)

After an opening lecture filled with images for inspiration, the residents who attended the opening session of the Third Street charrette split into three groups to brainstorm their aspirations for the corridor. A summary of the group's views follows.



GROUP ONE

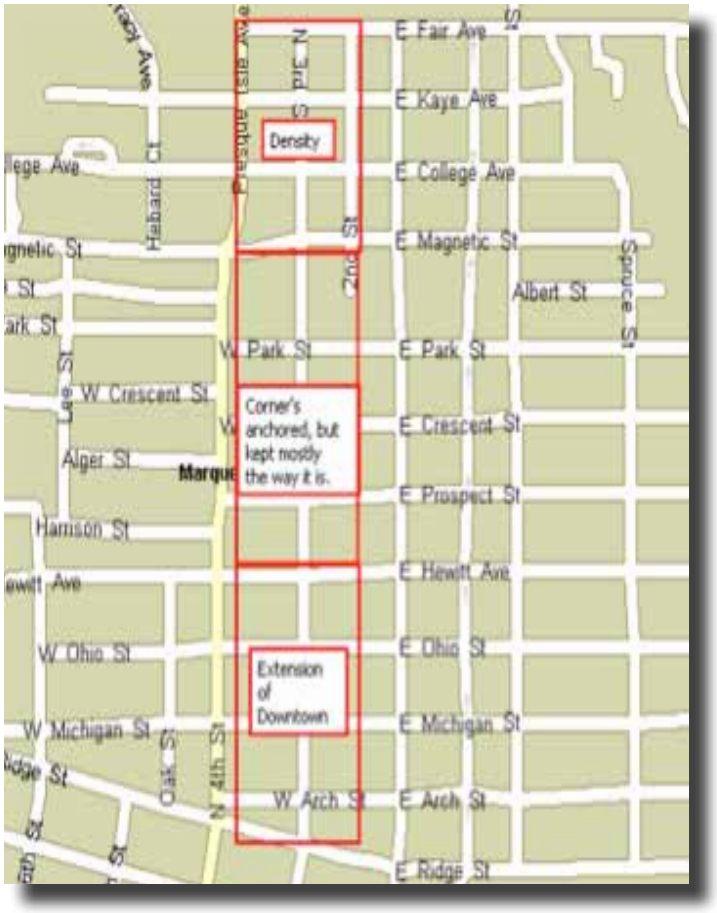
Group one presented an intriguing "barbell" diagram for Third Street that divided the corridor into three districts. The bar of the diagram was suggested to maintain many of the existing conditions in the middle of the Third Street Corridor, including refinished detached housing for some businesses and one-story buildings to keep the small town feel.

Either end of the barbell was designated as zones of higher density. Toward Ridge Street this would include a similar feel to downtown with a more vibrant retail district and some housing above. The end of the corridor towards the university would be emphasized as a housing district for students and hospital employees. The street level in this area would be for businesses and retail with housing above.

This group placed a strong emphasis on public safety, in particular for those on feet or bike. Given individual experiences and the challenges that weather brings in the winter, setting up a consistent design for cyclist and pedestrians to use and for vehicles to observe would create a safer corridor for all users.

Last, these participants would like to see a park or public plaza in the middle of the corridor near the ice cream shop.

COMMUNITY CONVERSATION SUMMARY
(COMMUNITY VISIONING)



GROUP TWO

The second group shared a similar vision as group one to split the corridor into three districts. The first district would be related to the downtown with buildings that look like many of the buildings on Washington. Moving towards the university, the second and third districts would be less downtown inspired, but the group expressed a desire to anchor the corners of each block with more prominent buildings.

As for green space, group two suggested a little pocket park every other block, but would also like to infuse the whole corridor with more greenery. This would involve building up the pedestrian way and improving the curb cuts to accommodate landscaping, and also placing power lines underground to make more room for trees.

The topic of reducing vehicular traffic was addressed mentioning mobility for cyclists and also skateboarders, but also through transit. This group thought that perhaps the bars along Third Street and downtown would initially sponsor a private bus route to bring patrons to their location, but that this would expand to a public trolley or bus.

COMMUNITY CONVERSATION SUMMARY
(COMMUNITY VISIONING)



GROUP THREE

The three district approach to Third Street was also shared by the last group to present. However this group saw the three districts as a gradient of density with the higher density starting at Ridge Street, and with the lowest density near the university.

The first district would have a shopping focus and would have the tallest buildings along the corridor. The second district would maintain the eclectic nature currently present on Third Street, but would encourage locating more retail establishments in retrofitted houses. The last district would have a residential mixed-use focus to provide attractive places to live and play.

This group heavily encouraged street trees throughout the district and would like to see a park near the alternative school.

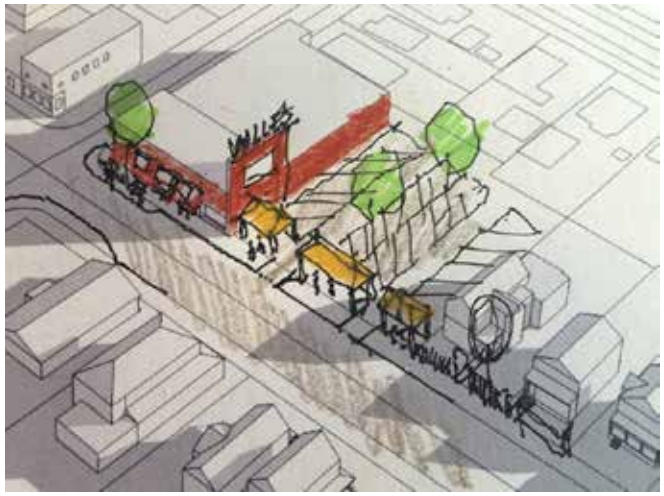
This group also brought up the idea that current one story buildings could have additions on top of them, such as the Wells Fargo bank, and also that infill might be possible in some of the parking lots if there were more parking behind buildings.



Open studio - Bill Dennis sketching out neighbors ideas



Susan Henderson getting feedback about Form-based Code



Initial sketch of Valle's Market showing liner pavilions



Bob Gibbs learning about Universal Design from David Boyd, PhD. - little things like doorbells at businesses can make a big difference for accessibility.



Idea of using buckets of flags for safe crossing like Madison came from a response on Facebook



Bob & Bill learning about the serious issue of snow plowing.



Marquette residents attended the opening lecture and conversation session to express their hopes for Third Street.



Dede Christopher painting watercolor of sketch showing dining decks & parklets

Phase Two - continued
Charrette

The Charrette consisted of a public participatory planning and design process lasting over a period of 4 -days, and included a facilitated community conversation, at least three interim pin-up and feedback loops, and a final in-process presentation of the Vision Plan. During the Charrette the consultant team:

- Generated a draft presentation, incorporating all of the issues, discussion and comment into a final summary.
- Solicited community input through a facilitated, interactive public design process.
- Gave the community an opportunity to confirm the consultant team's understanding and relevance of that input by summarizing the conclusions and outcome of that public process.
- Responded to that input with a variety of plan options, sketches, renderings, models, etc., sufficient in quantity, quality and substance to effectively communicate design intent and relevant issues, recommendations and design proposals.
- Allowed the community to review and comment on that response, prior to finalizing the Sustainability Plan and Form-Based Code Draft, through a facilitation presentation and public comment event (interim pin-up).
- Generated a final in-process presentation of the Third Street Corridor Sustainability Plan and Draft Form-Based Code, incorporating all of the issues, discussion and comment into a final summary.

Phase Three
Implementation Strategy & Form-Based Code

The Post-charrette Phase Three focuses on recommendations and implementation. This is gathered into this report, along with the results of Phase One and Two.

The final task is to present results to the project Steering Committee, as well as the boards and commissions of the City of Marquette.







View of excess paved areas on Third Street show both the lack of spacial definition of street space by not having buildings at the edge of sidewalks and the opportunities for future development.

C VISION

Overall Vision Plan



THird Street Corridor

The plan to the left represents the ideas developed during the charrette. The following pages will detail this plan block-by-block.

The ovals indicate the general areas that local residents felt could have distinct character, which led to the development of the draft Form-Based Code in Section E.

Vision for Transit Alternatives, Tactical Urbanism & Form Based Code begins on Page C 70



Northern Section of Third Street Corridor

This area goes from just north of West Park Street to West Fair Avenue. It was discussed that this area could be more dense with slightly taller buildings, especially to the north next to the university.

There is the greatest amount of vacant land and excess parking in this area, indicating the greatest potential for new development.



Overall Vision Plan

Middle Section of Third Street Corridor

This section to the left was felt to have a mixed character, with a greater number of exiting house type buildings, Therefore, it is believed that the development should be no higher than what is existing,

The density of new buildings could come from additions to the rear and possibly front, as well as renovations to the existing buildings.

The character in this area is more relaxed, more like a 'village' rather than a Main Street.

Lower Section of Third Street Corridor

The section to the right is similar to the northern section in that greater density and height could be allowed to take advantage of its proximity to downtown.

However, the character is still small town Main Street, not Downtown Marquette, and should not be as tall as downtown or have as many attached buildings.

There is a charming, hip character to this area that should be encouraged.



West Ridge Street to West Michigan Street



Design Vision
FOR
Block between West Ridge Street & West Michigan Street

1. Extend fencing around corner of Blackrocks Brewery for more seating.
2. New dedicated bike lane for west side of Third Street. Typical for all blocks.
3. Parklet / Dining deck for Third Street Bagel.
4. Mural and building painting for Blue Link Store - add fencing and trees along parking.
5. Parklets to provide sense of entrance the Third Street Village - possible gateway sign spanning street.
6. Keep residential feeling in this block even if use and density change.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and install 6' fence along lot lines to residential zone.



General Character & Strategy

Starting at West Arch Street, this first block of Third Street acts as the gateway from downtown. On the west side of the street are mostly house-forms (pitched roofs) with some additions in the front and a single story flat roof retail building at the corner of West Michigan Street. Further development should be encouraged to adapt the existing buildings, keeping the front dooryards and defining them with fences and hedges, and consolidating shared parking in the rear.

Over time driveways to Third Street could be shared or abandoned, freeing up additional building area or green space. Trees should be planted in these front dooryards through a local program. A dining deck at Third Street Bagel is encouraged as well as a parklet at the gateway entrance.

On the east side of Third Street the character varies from the one story Blue Link convenience store to the colorful historic Victorian adapted to Blackrocks Brewery. Existing story retail buildings should be encouraged to paint the building in vibrant colors and to add murals that embrace the feeling of Third Street. Any exposed parking should have a 3' fence, wall, or hedge to line the sidewalk. Any additional trees or outdoor seating within the visible parking area would be welcome, especially on the corner or along the sidewalk.

The colors of the Blackrocks Brewery building serve as a good example of vibrant paint schemes envisioned for other historic houses, as well as more recent buildings. These paint schemes support winter design guidelines found in the Community Master Plan. Extending the fencing , plants , and outdoor seating around the corner is encouraged, as well as the use of three dimensional signage that references the product made and consumed within.



Aerial view looking north from West Arch Street



Aerial view of existing building forms for this block

Entering the Third Street Village today is somewhat underwhelming, with a small sign and large parking lot.



The new Blackrocks Brewery has transformed a bland old house into a vibrant gathering place through the use of color, fencing, tables and seating, colorful umbrellas, and strings of lights. It is bike friendly and only needs additional fencing and seating at the corner and perhaps a unique 3D sign.





Range of building types of increasing density that fit the 'house-like' character found on Third Street



A northern climate like Marquette can often be made more cheerful in winter through the use of strong, deep colors, as is shown in this neighborhood house.



Excellent sign and facade colors at Sweetwater Cafe.



The Blue Link Convenience store is practical, but does not add much to the street in terms of interest.



Storefront windows would be ideal, but in the short term, interest can be accomplished through a strong color surrounding a mural that indicates life.



The newly renovated Third Street Bagel is a model of generous urbanism with storefront windows, awnings, and outdoor seating.



The customer does not always have the time or interest to read written signage; however, who could overlook this three dimensional bagel.

West Michigan Street to West Ohio Street





Aerial view looking north from West Michigan Street



Aerial view of existing building forms for this block

Design Vision
FOR
Block between West Michigan Street & West Ohio Street

1. Continue new landscaping along Third Street to shield parking.
2. Consolidate parking - remove driveway - add fence/hedge/ wall
3. Parklet / Dining deck for SweetWater Cafe.
4. Colorful signage, awnings, paint for Kitchen & Bike store.
5. Parklet in front of retail stores - could include multiple bike racks.
6. Consolidate parking and create outdoor cafe space.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

Starting at West Michigan Street, this block of Third Street has a more Main Street retail feeling, with flat roofs predominating. This is an area that more intensive development would be appropriate, with buildings similar to the historic corner buildings serving as models for the form and materials of new development.

The SweetWater Cafe in the middle of the block has many good urban elements - colorful signage, artistic handicap ramp, building close to the sidewalk - that would be enhanced by the addition of a dining deck or outdoor cafe in one of the redundant driveway areas. There is also an opportunity to add fences or hedges and trees along the parking, or to add a liner building or food truck for additional activity.

Zero Degrees Artist Gallery is another stellar historic building , and the Gallery could be encouraged to 'spill-out' into a parklet displaying public art and events. Across the street on the corner at West Ohio Street is the first of three funeral homes. This one has added landscaping, a fountain and benches as 'gifts to the street'. This should be encouraged to continue to line and buffer the parking lot along Third Street.

Finally, there are several buildings together along Third Street on the east corner of West Michigan Street that represents the common example of flat roofed retail buildings, adapted historic houses, and additions to the houses. The bicycle store is already using its sidewalk for temporary sales - color, signage (3D bike) and perhaps bike parking corral could be considered. The kitchen store has a small open area on the corner that could be similar to the funeral home's 'park' with larger 3D signage and paint vibrant color to anchor the corner.



This corner has only a small amount of space for parking on-site at the corner, but creates a no-man's land for pedestrians.

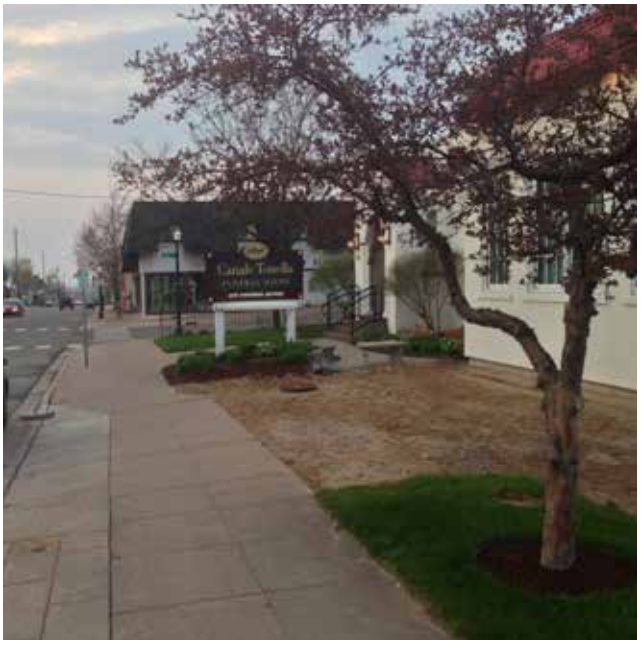
The Schwalbach Kitchen store is a typical Third Street building - an one story box attached to the front and side of a historic house. This occurs often enough on the street that it can be considered a 'building type'.

These existing (and new) retail boxes can be treated one of two ways. First, as a sympathetic addition to the house, seamless in materials and detail. The second option is to celebrate the difference, with the retail box lending hip 'street cred' to the more staid house.

The Schwalback Kitchen store is also typical of many buildings along the street that have small patches of outdoor space that are underutilized. Where these adjoin the sidewalk, there is the opportunity to give something to the street life, with landscaping, seating, color, art, or any other element that can express the daily life that occurs inside and outside of buildings.



A parklet on site, perhaps in conjunction with a literally over-the-top 3D sign and fountain, creates a small corner of interest and advertises the wares within. The deeper color on the building helps anchor the corner as well. Parking is still possible in this area if accessed from the side street.



The Canale Tonella Funeral Home is in process of providing a 'gift to the street' with landscaping, seating and a fountain. Hopefully, this will extend some day to the south to shield parking.



This period-correct, historical building is missing a window on the second floor, opening up an opportunity for creative signage/art. A parklet in front would also be a good receptacle for sculptural seats, tables and outdoor art.

The Zero Degree Gallery above is both the type of building that gives Third Street its historic character, and the type of business that makes Third Street interesting. This is a building type to be emulated, especially for new buildings on the southern section of Third, as well as all corner buildings. The height, material, mix-use, storefront amount and type are all exemplary.

New modernist buildings should strive for this degree of dignity, detail, and solid good looks.

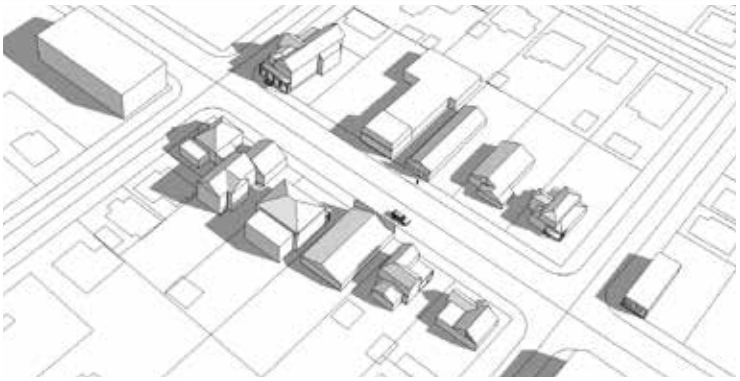


Ooh-la-la! A glowing zero with Dali.





Aerial view looking north from West Ohio Street



Aerial view of existing building forms for this block

Design Vision
FOR
Block between West Ohio Street & West Hewitt Avenue

1. Create seating at corner at sidewalk level - add fence/hedge to shield visible parking
2. Parklet with plants and benches for laundromat patrons and others.
3. Remove driveways as parking is consolidated in rear.
4. Colorful signage, awnings, paint.
5. Parklet in front of retail stores - use front dooryard space for outdoor seating.
6. Colorful signage and mural, awnings, paint.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

Starting at West Ohio Street, this block of Third Street continues the Main Street retail feeling of the block to the south, with flat roofs predominating. This is also an area where more intensive development would be appropriate, with buildings similar to the historic corner buildings serving as models for the form and materials of new development.

The second funeral home and its parking lot occupies the northeast corner of this street. While the building its landscaping has been recently upgraded, the parking lot is extremely visible due to its raised position. Additional fencing/ hedging/walling/landscaping would make this more enjoyable to walk by, and an added opportunity to create a sidewalk level seating area at the corner.

The laundromat at the northwest corner could take advantage of a parklet, as patrons have to wait for a certain period of time. As parking is consolidated, the asphalt on the West Hewitt Avenue side can be turned back to landscape, using natural stormwater standards. Both this building and the funeral home parking lot are good candidates for additional development with multi-level mixed use buildings.

The wedding and formalwear store has an opportunity to create a more lively presence through colorful paint, awnings, and 3D signage.



The southeast corner of this street is a florist shop with housing above. The mansard roof feels somewhat out of date, but the whole building could be brought into this century with the addition of some large scale flower murals, along with a deeper color for the building.

All along this block there are many opportunities to define the front dooryards with fences, walls, hedges, and trees.



Dan's Bridal & Tuxedo is a good example of a true live/ work building. A family owned business since 1974, it is a favorite of the community. The narrow strip of planting influenced the idea of a small setback on new buildings based on proposed Form-Based Code.



Some suggestions for increasing the visibility of the business is to paint the front a vibrant color, outlining the windows in white. An addition of the bride and groom dancing to the sign makes the business location memorable.



The Forsberg Flowers building is a mixed use building (retail with apartments above) and has a bench and boxes for flowers, but the identity of the business is somewhat muted.



This simple change of large scale murals of flowers, with the addition of seasonal flowers trailing from the balconies, makes the nature of this business unmistakable.



An addition of wedding bells ringing on the hour would complete the effect.

Architecture can be considered 50% form and 50% treatment. Many of the buildings along the Third Street Corridor are unlikely to change their form, because they are useful buildings. Some are stellar examples of traditional Marquette buildings, and some are quite simple in form and material.

The quickest way to change an individual building, and in aggregate the street, is through color. Paint can change an undistinguished building that has its shortcomings emphasized by the glare of white paint, into a building that is grounded by a deeper color.

Vibrant colors can enliven the whole Corridor making the retail district seem more active, and making individual buildings more memorable.

Lighting and signage act in concert with color to provide interest at night as well.

The Third Street Corridor isn't only on Third Street - it at the very least wraps around the corners onto the side streets. There are many opportunities to activate this space, which is usually much wider from the building to the curb than the Third Street sidewalks.

These areas can be combined with light imprint stormwater treatment using native plants, or if the area is better served as seating, permeable pavement can be put on top of stormwater storage, like a french drain.

These areas are particularly ripe for tree planting, as there is enough space to allow the trees to grow.



This classic building is underutilizing its side elevation. As an interim step, a mural could be painted in this area.



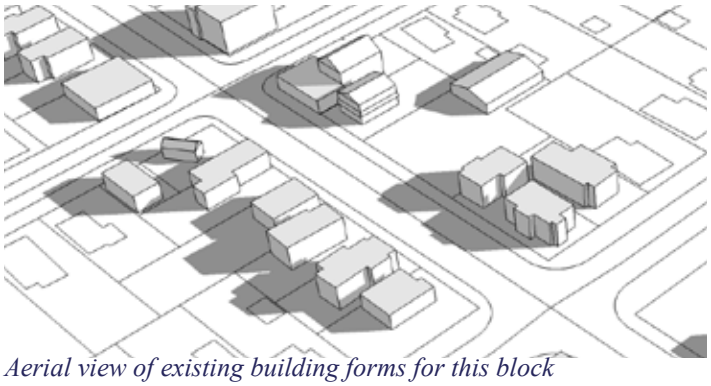
A similar building shows the possibility of opening up the side with sliding storefronts and cafe seating.

West Hewitt Avenue to West Prospect Street





Aerial view looking north from West Hewitt Avenue



Aerial view of existing building forms for this block

Design Vision
for
Block between West Hewitt Avenue & West Prospect Street

1. Create seating at corner with portable dining deck/ parklet.
2. Parklet with plants and benches for coffee drive- thru. Transition to multi-use building.
3. Create 'public' green as temporary space first, then make permanent.
4. Colorful signage, awnings, paint.
5. Parklet in front of professional office. Color, 3D signs, landscape could be added. Over time 2-3 story building.
6. Only traffic light in corridor -important point for directional information.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and install 6' fence along lot lines to residential zone.



General Character & Strategy

This block has a great deal of seasonal activity and is a fond gathering spot for generations of locals. The source of this activity is the Frosty Treats ice cream stand. Many people expressed a wish for a neighborhood green, and it would be a natural to locate one that could take advantage of the buying and consuming of ice cream, pizza, burgers and other delicious items.

By restructuring the parking lot, a temporary 'green' could be painted and defined with planters and picnic tables. If this is successful, it could be made permanent, with paving, grass, fountain, trees, and other civic elements. This would also be an encouragement of denser mixed-use development surrounding the green, as well as creating a center for Third Street.

The middle of the west side and the corner of the east side at West Hewitt Avenue have historic houses with some retail on the ground floor. It would be good to keep these and make additions to the rear, while defining the front yards with fences and hedges. These front also are a good area for a street-wide tree planing campaign, as the sidewalk will be difficult to plant new trees.

The north corners would take advantage of dining decks and parklets due to the Third Base bar and the drive thru coffee, which already has a few tables for their walk-thru patrons. Having two of these and possibly two more in the next block will help slow down traffic and make the corner more lively for pedestrians and easier to cross. The rendering on page C47-C48 shows what this could look like.

Additional signage at the intersection of Third Street and West Hewitt Avenue identifying the Third Street Village would be helpful for identity at this crossroads, and a street map on a pedestal or post would help district awareness.



Proposed Village Green next to Frosty Treats



Existing view of parking lot next to Frosty Treats



Third Street Village Green

A common desire expressed by residents of the neighborhood was a place to gather.

This is an idea that could happen in a number of locations along Third Street and would depend entirely on the cooperation of private land owners, but might be a part of any common parking strategy by the City of Marquette.

This view shows a Village Green in one such location, next to Frosty Treats. It was observed that this location already acts as a gathering spot, but there is some conflict with people waiting and then licking cones, with the parking lot. A green would give a safer and more pleasant place to gather.

This idea could be tested as a temporary idea, with paint, trees in planters, and seating to see how it works, and if successful and desired, could become permanent.

Change over Time

Investments in buildings by owners do not often allow for large-scale changes to buildings. Tactical Urbanism recognizes this successional nature of urbanism, and stresses the things that can be done right now, and added to later.



Stang's Family Eyecare is a new building that is a basic shape, but not much that attracts the eye (pun intended).



Over time there is the opportunity for more vibrant signage, awnings, and landscape. Notice that the grass area is defined more by a simple wood edging.

Starting with signage first, or color (paint) will depend on the budget, business, and building. Landscaping and fencing, likewise, will be an issue of cost vs. return. However, the little incremental steps taken by each business and landowner can add up to a tremendous change in the perception of the character of the district ("...something is happening here!").

It will also make the pedestrian connection and flow from business to business smoother, by providing interest and definition.



With the encouragement of 3D signs that indicate the nature of the business, there becomes no doubt what is happening inside.



The scene is complete with an eye-popping color scheme. Notice the edging is now higher and could be made high enough for people to sit and enjoy the moment.





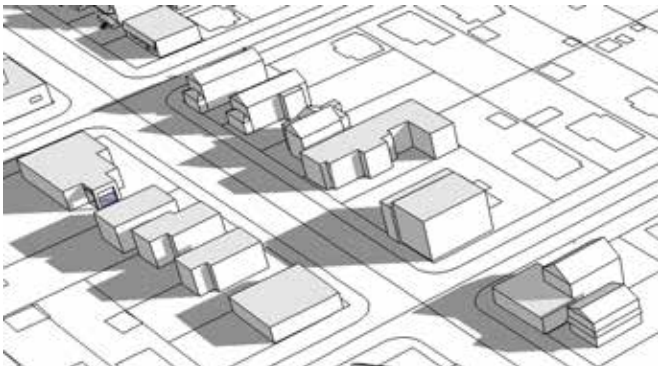
Alberta Street in Portland Oregon began its regeneration into an artist's community starting with painting the buildings deep vibrant colors.

West Prospect Street to West Crescent Street





Aerial view looking north from West Prospect Street



Aerial view of existing building forms for this block

Design Vision
FOR
Block between West Prospect Street & West Crescent Street

1. Create seating at corner with portable dining deck/parklet and re-landscape bank frontage to provide seating along sidewalk edge.
2. Define frontage along sidewalk of converted houses with fences/hedges and trees.
3. Mid-block parklet or dining deck for future retail use.
4. Colorful signage & paint to enliven historic houses.
5. Dining deck in front of Border Grill. Signage encouraged to be bolder, and parking lot shielded with low fence or hedge and trees.
6. Professional one story office build could transition over time to a multi-story multi-use building.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

The view above is looking north from West Prospect Street on the west side of Third Street and shows the gable fronted house forms that predominate on this block.

Most of these houses are mixed -use, with office or retail on the first floor and apartments above. It is likely that this will continue, with possible additions on the front or rear. If enough of these are assembled into one parcel, a larger new building could be built, however, it should still reflect the rhythm of the individual houses and pitched roofs.

The landscaping of the corner bank is out of character with the street, and should be more green, and have places for people to sit, along with trees planted in the front zone.

The Border Grill is an excellent upgrade of a good building type, and would make good use of an outdoor dining deck. The exposed parking lot would be improved with the addition of trees, and low fences.



Proposed dining decks, parklets and new corner development at intersection of West Prospect Street and Third Street



Existing view of intersection of West Prospect Street and Third Street looking at Border Grill.



Third & Prospect Parklets

Much of the difficulty of creating a pedestrian environment on Third Street is due to two and four wheel vehicles. With only one traffic light in the middle of this Corridor, and a wide street, cars tend to go too fast. Bicycles use the sidewalk too often, due to unclear markings and speed of cars.

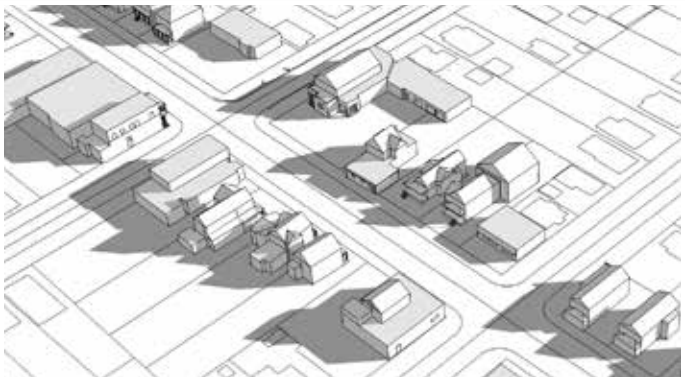
The idea of dining decks and parklets came about as a way to temporarily mark out a 'bulb-out' without the expense, and to see how it would work. Now it is often used as a seasonal place (especially in snow country), as a way to neck down the intersections and street to effect vehicle speed. These also have the advantage of creating activity on the street, increasing retail sales, and providing more public space.

The most successful of these could potentially become permanent bulb-outs in time.





Aerial view looking north from West Crescent Street



Aerial view of existing building forms for this block

Design Vision
FOR
Block between West Crescent Street & West Park Street

1. Seats under trees - possible pub to side.
2. Outdoor dining deck for Vango's.
3. New artistic handicap railing and larger 3D signage suggested.
4. Fences, hedges and trees at edge of sidewalk in front yards. Vibrant paint and signage.
5. Parklet in front of drycleaners. A new vestibule to the side could shield parking, along with adding a tree. Over time 2-3 story building.
6. Increase outdoor seating for Stucko's and add trees and signage and colorful umbrellas.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

Another typical Third Street block, with flat roofed one and two story building at the corners, and converted gable roof houses in between.

The third funeral home and its parking lot occupies the northeast corner of this street. The landscaping on the corner and especially its mature trees prove a natural green, framed by the classic building. Seating around the trees would be welcome, and perhaps the addition of a pub to the side or back (a tradition in Ireland) could be considered to allow for nighttime use.

The middle historic gabled houses can have additions in the front or rear, with space gained by sharing parking. The Marquette Embroidery & Lettering store has a flat roof addition that does not particularly match the house behind, but is a candidate for vibrant paint, awnings and signage. A mural on the side could highlight the art of engraving.

Stucko's on the southeast corner is a venerable institution that has recently converted part of its front parking to fenced outdoor seating. This should be encourage to expand, with the addition of a more substantial fence (maybe with a built-in standup bar rail) and the addition of trees, planting and colorful signage .

The southwest corner is the home of Dallas Cleaners (since 1921!). All effort should be made to support this long time survivor, and enhance with a new mural that shows the history (the dark grey color is actually very good for the simple block building). Additional expansion or fencing would be welcome along Third Street to shield the parking lot.

Another longtime favorite, Vango's, is on the northwest corner . The color of the building is appropriately vibrant and the crowds that come would enjoy the dining deck in front. All of the sidewalk and frontage improvements, along with a shared parking strategy would make fuller use of parking further away on Third Street, while taking the pressure off creating more parking into the neighborhood.



The Swanson-Lundquist Funeral Home is both a notable building and is fronted by a nice green space with mature trees. There is the potential to create seating around the trees and add additional landscaping to line the parking lot.



There is a tradition of Ireland of having a pub next to a funeral home. This pub in Providence, RI took this idea and used the former hearse garage. One of the three funeral homes on Third may wish to provide a place for a traditional wake.



Stucco's Pub has recently given up a few parking spaces to create and outdoor dining area. This should be encourage to expand, and enhanced with plants, trellises, and colorful umbrellas. A bike corral at this location might be well used.



This is an example of a street with a sidewalk dimensionally much like Third Street, with the addition of dining deck, plants, benches along the buildings, and street trees.



Vango's is a happening spot and creates a lot of activity. It would be good to capture some of the energy on the street with a dining deck or parklet the people could wait outside on busy summer nights.

Defining Public and Private Space

A retail street is a hybrid in terms of public space. Retail owners want the public to enter their shops, but it is also privately owned space. Malls try to make the experience seamless from shop to shop, which is much harder to achieve with multiple owners on an existing street.

But individual owners can do things to make the fronts of their buildings more welcoming, from larger storefronts, to defined front dooryards or courts, to dining decks and parklets across the sidewalk that are animated by the business and act as an advertisement for the public to enter.

All along Third Street are opportunities to add definition to the streetwall, to create public rooms that are comfortable and invite people to pause, and look, and partake in the goods and services that are offered.

MARQUETTE
EMBROIDERY
& LETTERING

Marquette Embroidery & Lettering logo would be good in color as a mural, but an even more elaborate one showing artisans demonstrating their craft would be awesome.



Marquette Embroidery & Lettering is 30 year old business located in the retail-box-addition-in-front-of-a-house building type common to Third. The side of the building would be an excellent canvas for a mural.


W MAGNETIC STREET
THIRD STREET
W PARK STREET
Valle's Village Market
Campus Pharmacy
Flower Works
Togo's
1
2
3
4
5
6
7
7
7
7

Design Vision
FOR
Block between West Park Street & West Magnetic Street

1. Possible addition to restaurant (or outdoor beer garden) along sidewalk edge with dining deck. Extend Thailand theme.
2. Dining deck with front of grocery with glass storefront opened up,
3. Line front of parking lot with tents selling bratwurst, fruit,flowers, etc. Add trees.
4. Add fence/wall/edge and trees to define street edge. Add larger signage and color.
5. Restructure parking to create an area in the front for picnic tables. Add fencing, colorful signage and trees.
6. Parklet for White's Party store could be used by the store for special events.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

This block is dominated by the activity and size of Valle's Village Market, a well-loved neighborhood grocery. This large flat-roofed building, along with the Village Shopping Center, attached retail and Togo's give this block a strong convenience retail feeling.

In between, as usual, are older houses with pitched roofs and some additions. All of these can be strengthened with the addition of fences, hedges and trees in the front yard along the sidewalk, as well as additions to the rear.

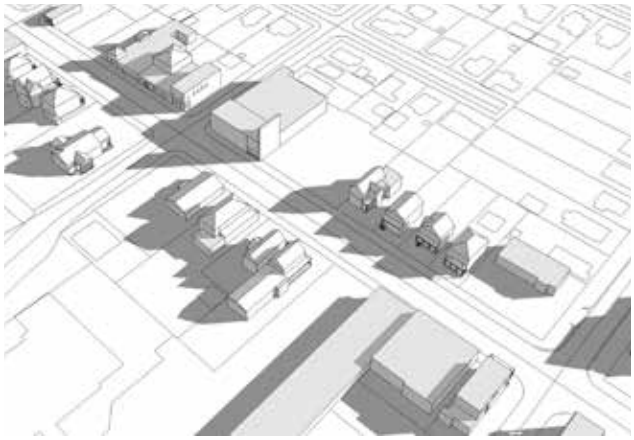
The Village Market offers great opportunity to build on its role as a neighborhood center, adding tents to line the parking lot for various uses, and a dining deck in front of the re-opened storefront to create a lively street scene.

The Thai House restaurant on the northwest corner has an opportunity to create a temporary beer garden with fences and twinkle lights along the front sidewalk. Access to parking can be from West Magnetic Street. A dining deck also acts as an advertisement for the activities within during the summer months.

The Village Shopping Center is well used, but being one of the larger parcels, also has great potential for redevelopment of a mixed-use, multi-level building. The frontage along the parking lot would be improved by the addition of trees and fences or hedges, or a food truck.



Aerial view looking north from West Park Street



Aerial view of existing building forms for this block



Proposed view of Valle's Village Market with dining deck, open windows, and marketplace tents



Existing view of Valle's Village Market and parking lot



Valle's Village Market Place

Third Street is fortunate to have a longtime grocery that acts as a neighborhood center. A number of tactical urbanism strategies are shown above. To the far left is a dining deck which could be used by patrons of the indoor deli and the outdoor brat stand.

The front of the store has been closed up for a number of years, but would be easy to open up with new glass, which has been shown to increase sales. By having seasonal tents and produce stands allows a expansion of the business onto the sidewalk edge, and helps to make an interesting and attractive edge for pedestrians, while shielding the parking.

A large mural on the 'billboard' part of the building could present an image of the village that the market serves, along with larger signage and a bright color.



Many of the historic houses have businesses on the ground floor, but feel standoffish because of the undefined lawn.



The simple addition of a fence, hedge or wall at the sidewalk edge defines both the sidewalk and the individual business.



Valle's Village Market forms a strong streetwall, but lacks openness to the business within.



By opening this wall up, it creates a strong and lively edge, as do the tents and dining decks.



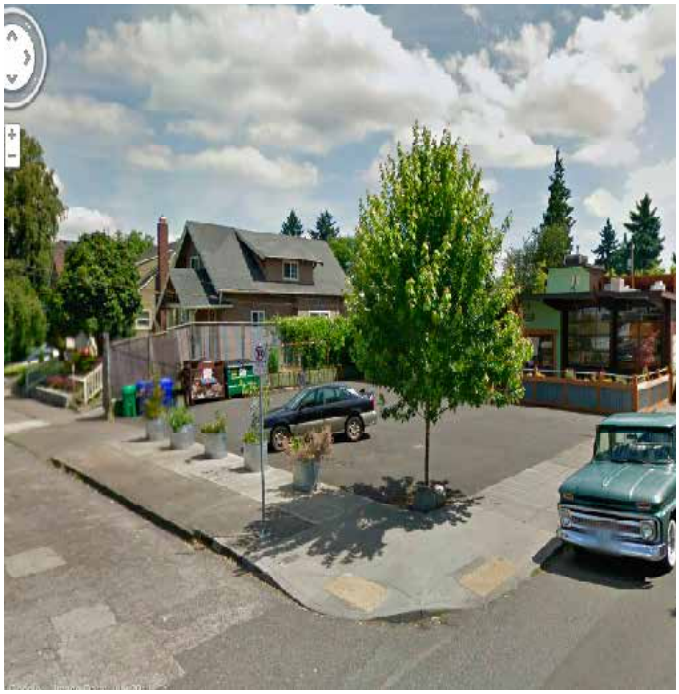
The corner of Togo's has enough room to add a few tables and chairs to keep the bench company. Landscape in large troughs, lights, and other elements can create a place for people where there was none before.

The Streetwall

Third Street consists of two parts: the right of way of the public street and sidewalks, and the private frontage of the lots. It is the vertical element in front of each lot that creates the 'streetwall', much like the walls of a room. This streetwall is what makes a street comfortable, safe, and interesting to walk along.

There are episodes of strong streetwalls on Third Street, but they are too often interrupted by parking lots, driveways, blank walls, and buildings that are set too far back from the sidewalk to define the street.

Over time, with simple strategies, these gaps can be filled with fences, hedges, low walls defining courts or hiding parking, high walls with windows or other opening, and street trees.



This simple example in Portland Oregon shows how the character of a parking lot can change with just a few planters and a tree.



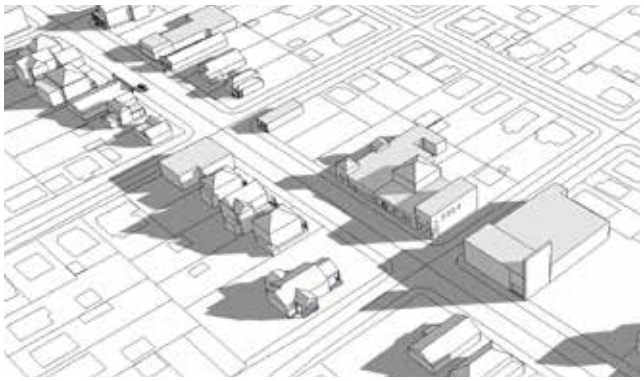
A more elaborate example in Portland is still a temporary edge, using simple fencing and an outdoor cooker and tent.

West Magnetic Street to West College Avenue





Aerial view looking north from West Magnetic Street



Aerial view of existing building forms for this block

Design Vision
FOR
Block between West Magnetic Street & West College Avenue

1. Line parking lot with small liner tents, portable structures or food trucks along with fences hedges and trees.
2. Parklet with plants and benches for sandwich shop. Resolve conflict of delivery vehicles with nearby residents.
3. Possible new development to rear of consolidated lots keeping existing houses in front.
4. Define front yard with 3'-4' fence or hedge, and add trees.
5. Private green space could be made more open to public with more trees, seating and fountain.
6. Parklet and bike corral parking in front of Quick Stop Bikes. Add color, 3D signs, and a mural showing historic biking.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.





General Character & Strategy

This block is a mix of commercial one and two story buildings on the east side of Third Street, and traditional residential buildings (some converted to office/ retail) in the middle of the west block, with a two story retail building on the northwest corner and a conventional suburban one story bank on the south-west corner.

The largest impact on the block is the continued long term success of another Marquette favorite restaurant, Casa Calabria. As business has grown, the need for convenient parking has increased, leading to demolition of buildings fronting Third Street. The street experience would be improved by the addition of a low fence or hedge and trees to shield the parking. An opportunity to put special event tents, portable structures, or food trucks run or controlled by the restaurant would enliven the pedestrian experience and make it worth-while to walk a bit further from overflow parking.

The Quick Stop bike store building attached to Casa Calabria along Third Street is a rather modest building that could benefit from darker colorful paint, a 3D sign (bicycle), awnings and perhaps a large mural that celebrates biking. A parklet could combine bicycle racks, planters and seating. On the west side across from the Quick Stop is a bank of the suburban model, pulled back from the street. This can be turned into a positive for the street

however, if the green space in front of the building were made more of a 'civic' space with seating, paving, planters, trees, and a fountain.

North of the bank is a row of historic houses, used for a mix of uses, including some that are all residential. There is an inherent conflict between single family houses and retail, which is acceptable if the residents know in advance what is next to them. As the nature of this street changes to the allowable retail zoning, care must be taken to integrate form and use to minimize conflict.

Fences, hedges, walls, and trees in the front will help define each house form, as well as a shared parking strategy. This plan shows a redevelopment strategy with a common taller building to the rear of the houses, keeping the historic houses and side yards intact.



The apartment with the finger is an example of a new building in a neighborhood that blends in with traditional architecture.



Another example of new building that increases density but matches existing buildings through materials. The ground floor of this type would not be appropriate for Universal Design access.



A modernist example that has the one story retail up front and taller townhouses to the rear.

Infill



One story buildings provide the opportunity to retrofit to add density and improve street character.

The tactic of infill to complete the streetwall can work on this and other blocks. The strategy can happen in one of three ways.

The first is to add above or to the rear of an existing retail building as shown to the lower left. This can be disruptive to an existing business, but can work if the addition is far enough to the rear to not effect the structure.

The second method of infill is to keep the existing residential house-form buildings and add a taller building to the rear, either attached to the houses or freestanding.

The third infill method is to build all new in an existing parking lot, or a demolished building. This is the most expensive, but allows the greatest flexibility.

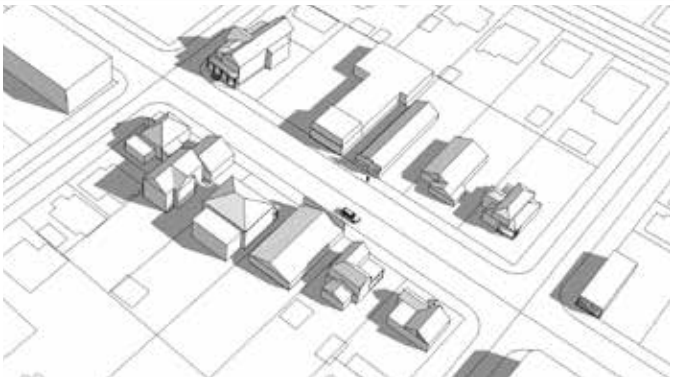


A sketch of how to add to an existing one story retail building.





Aerial view looking north from W. College Avenue



Aerial view of existing building forms for this block

Design Vision

for

Block Between
West College Avenue
& West Kaye Avenue

1. Possible redevelopment to greater density. Mix with existing buildings.
2. Possible redevelopment to greater mixed-use density with storefronts close to sidewalk and parking in rear.
3. Mid block buildings could stay or be new, but set back for green defined front.
4. Possible new development set back for green front planted with trees.
5. Possible new mixed-use development with storefronts close to sidewalk.
6. Possible new development close to sidewalk.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

This block begins to feel beyond the main retail area of Third Street, largely due to several large gaps in the building fabric. There are a few historic houses worth renovating, but this block shows a great potential for redevelopment for new mixed use buildings.

The Casa Calabria in the previous block has expanded their overflow parking into this block, and it is hoped that over time, the development potential along with a strategy for shared parking will encourage the rebuilding of the corner at College into a denser multi-use building with retail or office on the ground floor.

As this block redevelops, the new Form-Based Code will make sure that there is not one 300' long unbroken building. There will be requirements for setbacks for parts of buildings over a certain length, to mimic the pattern of houses and retail buildings that make up the traditional fabric of Third Street. These front courts also provide a place to plant significant trees, which will act as street trees, as it would be difficult to plant street trees in the sidewalk zone and have them survive (although it may be worth trying in important spots, especially where buildings come up to the sidewalk).

The new buildings will be required to be setback six feet to allow a more generous sidewalk and space for urban landscape .These buildings will be allowed to go up to three full stories with an additional habitable attic space, and will be required to step down in the rear towards the neighborhood.

The character of new buildings in this block and the next could be a mix of modern and traditional, with clues taken from other buildings on Third Street as well as college buildings. It is expected that this end on Third Street will serve the University population first, due to proximity, however, it should also feel and work as a part of the rest of Third Street Village.



Perani's Hockey World is a successful business, but a bit lonely on this block.



The requirements for overflow parking at specific times has created a void in this block.



A simple facade that could be made more memorable with the addition of a giant hockey stick as a sign.



A mix of building types could be renovated or become a site for more intense new development, still with some setback within the length of the block.

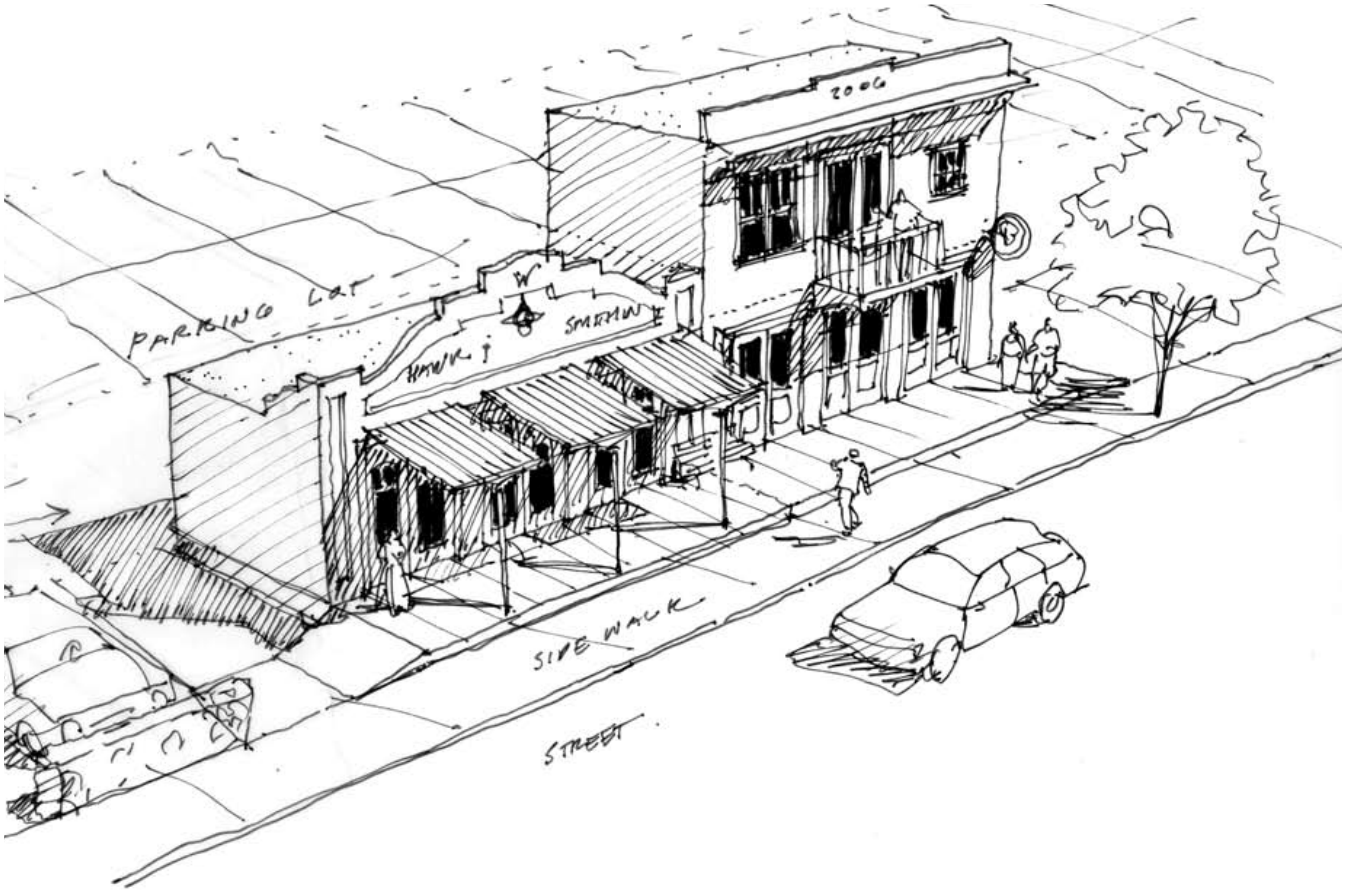


Tashmoo Biergarten in Detroit, is a European-style outdoor beer garden that opens throughout the year as a pop-up event on an underutilized lot.

New Development

This block seems appropriate for eventual new development, as a number of buildings have already been torn down for parking. As the value of land increases in this block, it will eventually be worth creating new mixed use building with shared parking to the rear.

In the short term, some of the parking lots could be lined with temporary kiosks, or create seasonal beer gardens.



Temporary 'liner' buildings along edge of parking lots or vacant lots.


Northern Michigan University
1
W FAIR AVENUE
2
3
4
THIRD STREET
Wells Fargo Bank
7
7
Beacon House
5
6
W. KAYE AVENUE

Design Vision
FOR
Block between West Kaye Avenue & West Fair Avenue

1. (not in study area) Work with University to create a gateway/ square.
2. Redevelop gas station into 'gas backwards' mixed use building.
3. Proposed new three story mixed use building with shared parking along rear.
4. Dining deck/parklet for liner food hut to shield parking and animate sidewalk.
5. Re-paint Beacon House in vibrant colors with graphics and new awnings.
6. Proposed three story new mixed use development with retail/ office on ground level.
7. Consolidate parking to rear of lots over time - remove driveways from Third Street - plant evergreen trees and instal 6' fence along lot lines to residential zone.



General Character & Strategy

Only three buildings compose this northernmost block in the Third Street Corridor. This the block with the most suburban character due to two businesses that are oriented primarily to the car. These businesses are successful and needed, but it may be as time goes on there is a way to adapt these more to the character of the rest of the Third Street Village.

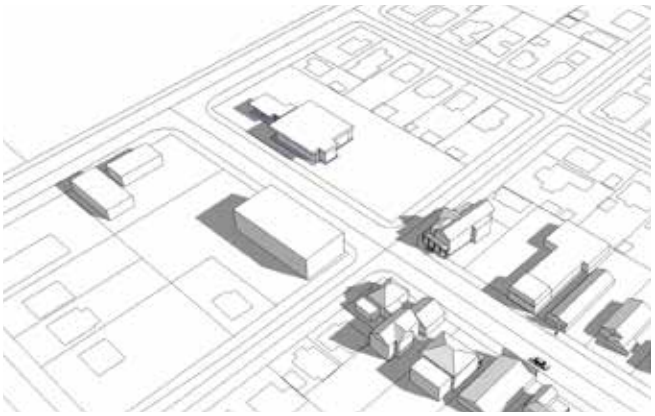
The bank occupies all of the east side of the street, and has what seems to be more than sufficient parking. As development values increase, it may be possible to redevelop the whole site, or the areas on either side of the bank. The parking can be shared to the rear, with the addition of tuck under parking. The new buildings could take their design cue more from the University buildings, especially if the University decides to develop the entrance to the athletic facilities.

The gas station/convenience store is of a conventional type, and does have nice landscaping on the corner where there is a Third Street Village sign, but the typical layout is fundamentally antithetical to a pedestrian environment. Therefore, as part of a potential redevelopment project, it would be encourage to use the 'gas backwards' model, where the convenience store part is up to the sidewalk and the pumps are to the back or side. In this case the pumps will still be fully visible from Fair Avenue and partially visible from Third Street. There could be one or two stories above for office.

The Beacon House is an important part of the Third Street social makeup, but the building itself is undistinguished. This is one more building along the corridor whose modest material would be better served with a darker, more colorful paint to 'ground' the building on the street, instead of popping in to the field of view, as white and light colored buildings tend to do. A mural representing the 'beacon' and mission of the organization would be welcomed by all good citizens.



Aerial view looking north from West Kaye Avenue



Aerial view of existing building forms for this block



Proposed view of north end of Third Street Village at West Fair Street



Existing view of north end of Third Street Village Corridor



North Gateway

Third Street has two gateways: this is a vision of what could happen at the north one.

On the left side is an example of the gas station/convenience store being rebuilt with the store on the street side and the gas pumps to the side/rear. This is an important corner to have a building located, to provide a defined 'beginning' (or end) to Third Street. Across the street to the right is the matching gateway building on the corner.

The large opening to the left in front of the 'gas backwards' station is the parking lot for Beacon House, and is shown with a low wall and landscape to hide the parking, as well as a food truck (Airstream variety).

In the distance is an idea for creating a square and entry building and gates for the Athletic Center and Superior Dome.



Existing view of Beacon House.



There are many types of food trucks. One of the most classic is the Airstream Trailer.



Proposed example paint scheme, mural, and signage for the Beacon House.

Entry & Gateway

The most northern block of the Third Street Corridor is where it ends, but also where it begins. This is a gateway to the village as well as to the University in the other direction. This could be marked with a gateway that spans the street as suggested at the southern end, or gateposts. Although this the University property is not in the study area, there is an opportunity to create a terminated view for Third Street. This could be coordinated with development at the gas station and on the bank lot.

Additional activity like food trucks are a first step in energizing this end of Third Street and gaining interest in further development.



Rollins College built temporary gates as the result of a charrette to give the Main Street a terminated vista -a success it is not built in stone.



A design for a 'gas backwards' store and office.



Gas pumps to the side with a 3 story infill building





"Utilization levels [on Third Street] are much more modest compared to those in Downtown. However, single-stop trips are clearly more prevalent here. . .
and this likely skews drivers' perceptions of parking availability in the area." - Nelson/Nygaard Third Street Parking Study

Parking

Parking issues were expressed as a concern by retailers and customers. By making Third Street a more walkable, seamless retail area with a shared parking strategy is one way of tempering this concern.

However, there is also a way to simply expand actual parking spaces through restriping, reducing unnecessary curb cuts, and eliminating 'no parking this side of street' regulations on side streets.

Meters would also increase available spaces.

Expanding on-street parking capacity



Reduce corner setbacks



Reduce unnecessary curb cuts



Eliminate "No Parking This Side of Street" signs

Expanding on-street parking capacity

This graph shows the gains in spaces that can be achieved through various strategies.

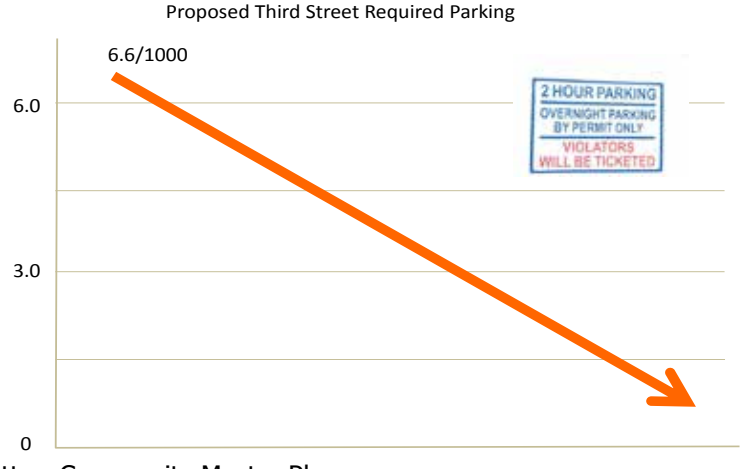


These strategies taken together can almost double the number of on-street spaces from 110 to 210, without having to buy additional land for parking.

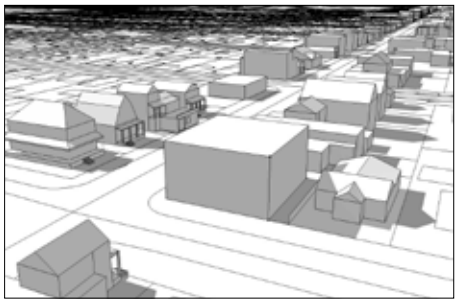
When this gain in on-street spaces is added to the existing off-street parking, a total of 860 is reached.



Presently retail is required by code to provide 6.6 spaces per 1000 square feet of space. It is proposed to make this under 3 spaces per 1000 square feet, allowing an increase in retail space with the existing number of spaces, and making it easier to add new retail.

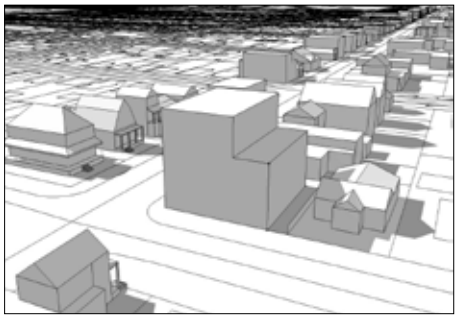






Two story building study for Transect Zone 4 (T4)

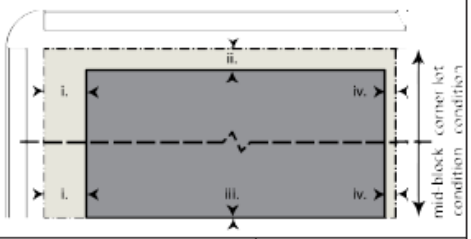
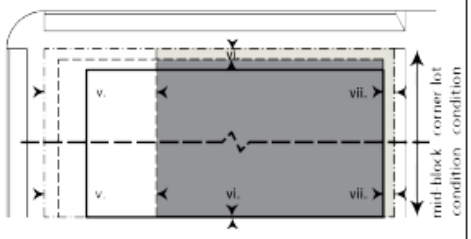


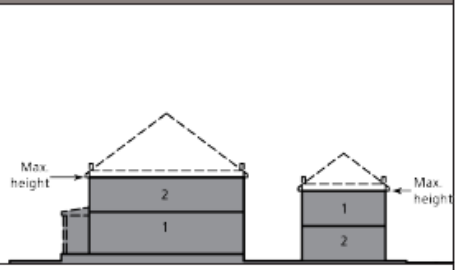
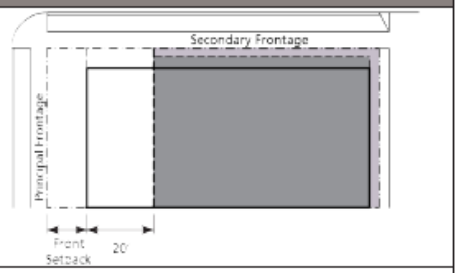


Three story building study for Transect Zone 5 (T5) with step down

The images to the left were used to study the impact of various heights in the T4 and T5 zones, and helped adjust the metrics in the final draft document. A concern that arose was the possibility of too much shading by new taller buildings, leading to the regulation of a step down toward the rear of Third Street lots.

TABLE 4. T4 STANDARDS

A. BUILDING PLACEMENT	
PRINCIPAL BUILDING	
	
i. Front Setback (Principal)	5 ft. – 18 ft.
ii. Front Setback (Secondary)	10 ft. max.
iii. Side Setback	0 ft. or 3 ft. min.
iv. Rear Setback	3 ft. min.
Abutting RG Principal Bldg	15 ft. min.
OUTBUILDING	
	
v. Front Setback (Principal)	20 ft. min.
vi. Side Setback	0 ft. or 3 ft. at corner
vii. Rear Setback	3 ft. min.
Abutting RG Outbuilding	10 ft. min.
ENCROACHMENTS	
i. Setback *encroachments*	
Open porch if setback greater than 10 ft.	50% max.
Balcony and/or bay window	80% max.
Stoop, Terrace	80% max.

B. BUILDING FORM	
HEIGHT	
	
PRINCIPAL BUILDING	
Stories	2
To eave / parapet	30 ft. max.
OUTBUILDING	
Stories	2
To eave / parapet	30 ft. max.
MASS	
Lot width	14 ft. min.
Lot coverage	70% max.
Facade buildout at setback	60% min.
PARKING AND STORAGE LOCATION	
	
PARKING	
Principal Frontage setback	not permitted
20 feet behind front setback	not permitted
Rear of lot	permitted

The page to the left is an example of the Transect Zone standards for Building Form and Building Placement. This includes build-to lines, heights, outbuilding locations, encroachments and parking locations.

THE FUNDAMENTAL REASON FOR ADOPTING A FORM-BASED CODE IS TO MAKE THE GOOD EASY (AND LEGAL!), AND THE BAD DIFFICULT.



The Rural to Urban Transect for the human habitat



The Transect applied to Third Street Corridor





Form Based Code Vision

During the Charrette, various alternatives were presented for the Third Street Corridor that would effect an eventual draft Form Based Code as seen in Section E.

It was decided to base this Form-Based Code on the Rural to Urban Transect system, seen in the diagram to the left. Because they are based on the physical form of the built and natural environment, all transect-based codes are Form-Based Codes. A transect is a cut or path through part of the environment showing a range of different habitats.

The Rural to Urban Transect is divided into six 'habitats' from Transect Zone 1 (T1) - Rural. to Transect Zone 6 (T6) - Urban Core. Each has certain characteristics for build-to lines, building heights, site coverage, on-site parking, as well as characteristics of the streetscape.

For the Third Street Corridor, it was determined that Transect Zone 4 (T4) and Transect Zone 5 (T5) were the 'habitats' that applied to the Third Street study area.

The Standards for Transect Zone 4 (T4) and Transect Zone 5 (T5) were discussed and modified, showing possible building placement, form, outbuildings, parking, and other metrics that are based on the character of Third Street and the Vision Plan.

Percentage of glass required was one of the options explored through Photoshop simulations shown to the left that gave a range of appropriate glass requirements for storefronts in new construction.

Marquette Active Transportation

Exiting Conditions

Third Street serves as the heart of The Village neighborhood. It is a regional dining and shopping destination and functions as an important link between Northern Michigan University and downtown Marquette. The corridor is located within a larger neighborhood street network featuring relatively small blocks lined with sidewalks, a mixture of single-family and apartment buildings, schools, and parks. This mixture of uses and the neighborhood's coherent physical pattern is conducive to walking and bicycling. Indeed, despite the relatively narrow sidewalks and lack of bicycle facilities, people can be seen walking and bicycling along and across the corridor for most hours of the day. Furthermore, the presence of pedestrian amenities (curb ramps, high-visibility crosswalks, benches, outdoor café seating etc.) and decorative custom bicycle racks communicates that walking and bicycling are valued modes of transportation. That being said, several policy and physical changes have begun to undermine the safety and comfort of walking



A bike rack provided by Valle's Village Market

and bicycling along the corridor and throughout The Village neighborhood. With few existing traffic-calming measures, the increasing number of surface parking lots is degrading the comfort of walking and bicycling as well as the general aesthetics of the street. People driving exceed the speed limit with some frequency, most likely because travel lanes are wider than necessary and on-street parking spaces are often empty, which makes travel lanes appear even wider and fails to create the "friction" to slow down drivers.



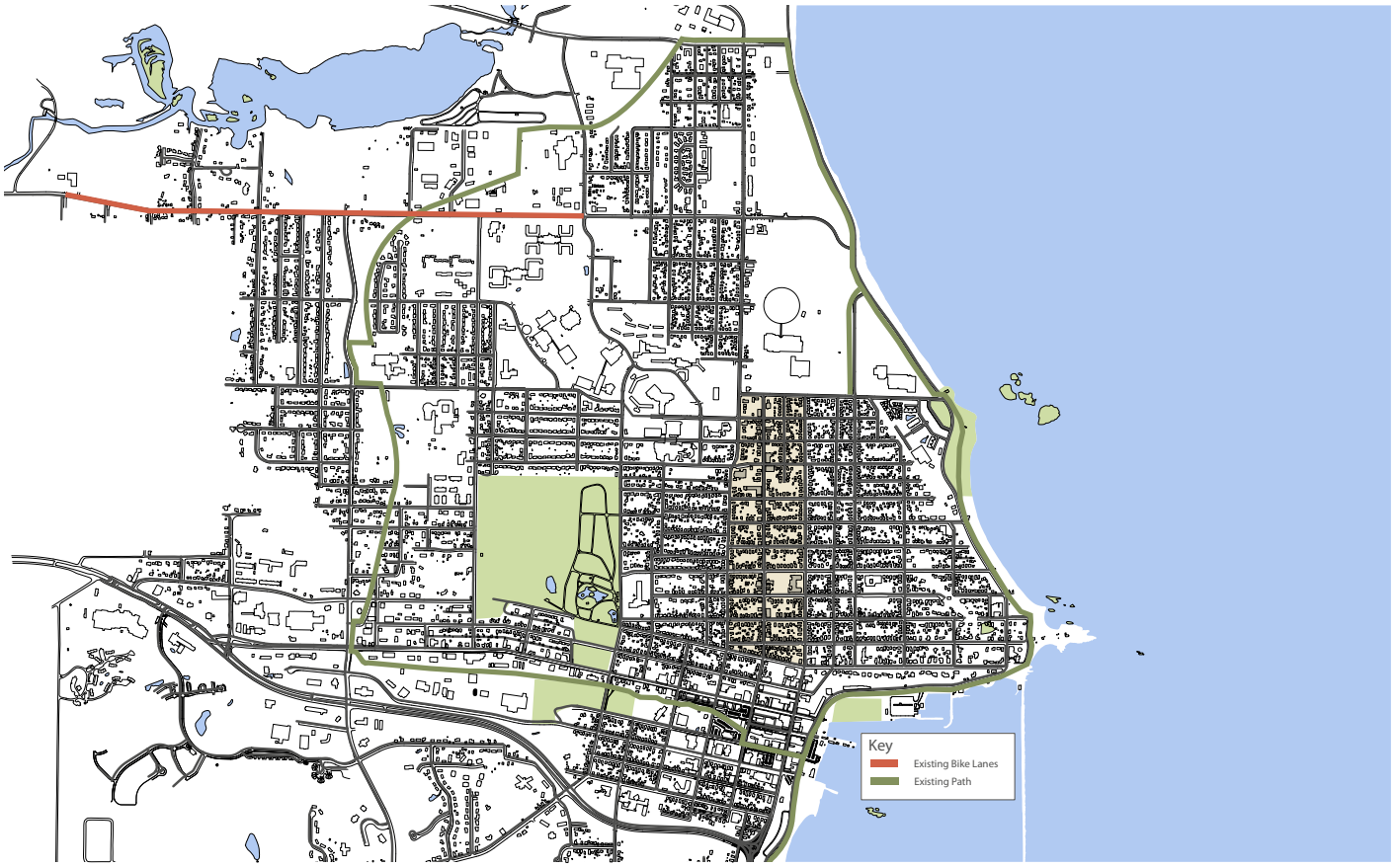
Improper use of sidewalk by bicyclist

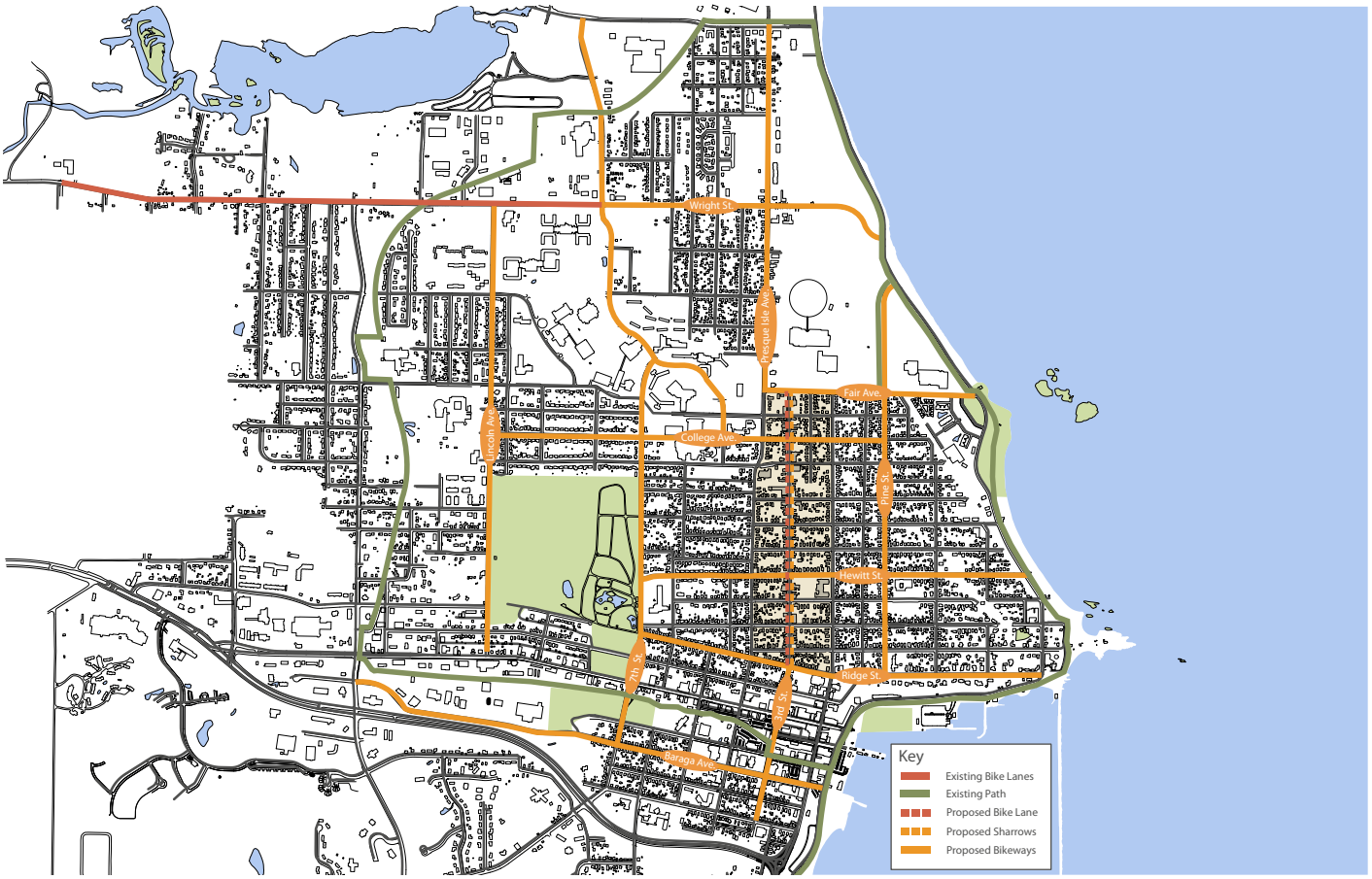
Additionally, the lack of visible facilities limits the number of people who feel safe bicycling on the street. Rather than mix with traffic bicyclists choose instead to ride on the already narrow sidewalks where near pedestrian-bike collisions are common. Truck traffic is also common along Third Street, which may further deter bicyclists from using the street and makes walking that much less pleasant.

General Active Transportation Recommendations

Third Street is an important part of Marquette's transportation network. It is also an integral part of the city's social and commercial vibrancy. Enhancing the walking and biking experience along Third Street is paramount, but so too is ensuring that Marquette's nascent on-street bikeway network is expanded and developed alongside continued investment in amenities that making walking pleasurable and safe.

It is recommended that Marquette build from the existing perimeter trail system to further connect its neighborhoods, schools, parks, and the many amenities of downtown. While the city's entire roadway system has not been studied closely for multi-modal consideration, the proposed conceptual Network Plan utilizes corridors that provide meaningful connections to destinations throughout the city. The proposed Network Plan underscores the centrality of the Third Street corridor, but also reinforces the need for a citywide network of on-street bikeways.





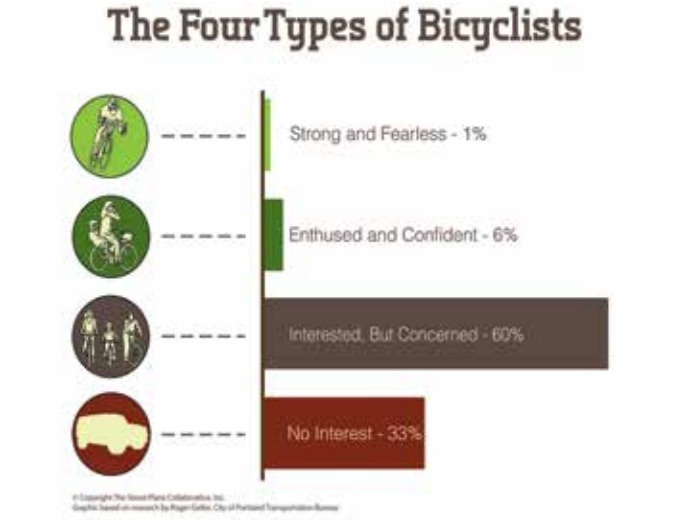
City of Marquette - Community Master Plan





Bike-shed diagram in relation to pedestrian-shed

Finally, a comparison of the Third Street corridor's "bicycle shed" (a 5-minute ride) and its "pedestrian sheds" demonstrates how efficient bicycling can be if made attractive to a wider demographic of people, those Roger Geller calls "the interested but concerned." (4-types of



cyclists diagram above). Indeed, bicycling allows one to travel up to three times as far when compared to walking with the same allocation of time.

THIRD STREET CORRIDOR: TRANSIT

Public transportation is limited not just along the Third Street corridor, but citywide. It is recommended that the City of Marquette continue to pursue a variety of possible funding/revenue streams that would allow the existing system to be enhanced. Given the student population and the range of destinations within close proximity of downtown Marquette, it is reasonable to believe a wide variety of people could benefit from even a small rubber tire trolley service – even if seasonal – that connects the waterfront park system, downtown Marquette and the Third Street corridor. If such a system is put into place, it should maintain the bike racks mounted on the front of the bus, which provides an important intermodal transportation benefit that helps riders enhance the "first and last mile" of their journeys

THIRD STREET CORRIDOR: BICYCLING BIKEWAYS

Between Ridge Avenue to the south and Fair Avenue to the north, Third Street corridor varies slightly in width, but in all instances is not wide enough to reasonably accommodate bicycle lanes in both directions without removing on-street parking. It is recommended that the City of Marquette implement shared use lane markings (sharrows) on the downhill direction of travel, while the uphill side receives a southbound 5' to 6' wide "climbing" bicycle lane. Shared lane markings are

an appropriate solution because there is less of a speed differential between bicyclists and motorists traveling downhill. Similarly, it is more difficult to ride at the speed of a car when bicycling uphill. The climbing lane therefore provides more comfort because it defines the bicyclists' space more clearly and allows additional space for lateral movement while climbing the hill. The clear marking of both facilities will help reinforce the proper direction of travel and together with signs, markings, and traffic-calming, encourage bicyclists to ride safely and visibly along Third Street.



Sharrow

This marking is placed in the center of a travel lane to indicate that a bicyclist may use the full lane.
According to the US Manual on Uniform Traffic Control Devices, shared-lane markings are used to:
1.Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle;
2.Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane;
3.Alert motorists of the lateral location bicyclists are likely to occupy within the traveled way;
4.Encourage safe passing of bicyclists by motorists;
5.Reduce the incidence of wrong-way bicycling.

Intersections

The majority of bicycle crashes occur at intersections. Therefore raising the visibility of bicyclists as they approach and travel through an intersection is critically important so that conflicts between people bicycling (and walking) and driving is reduced. This can be done effectively by implementing two intersection treatments in conjunction with the recommended climbing bicycle lane and shared use lane marking. These treatments are intersection crossing markings and the bicycle box.

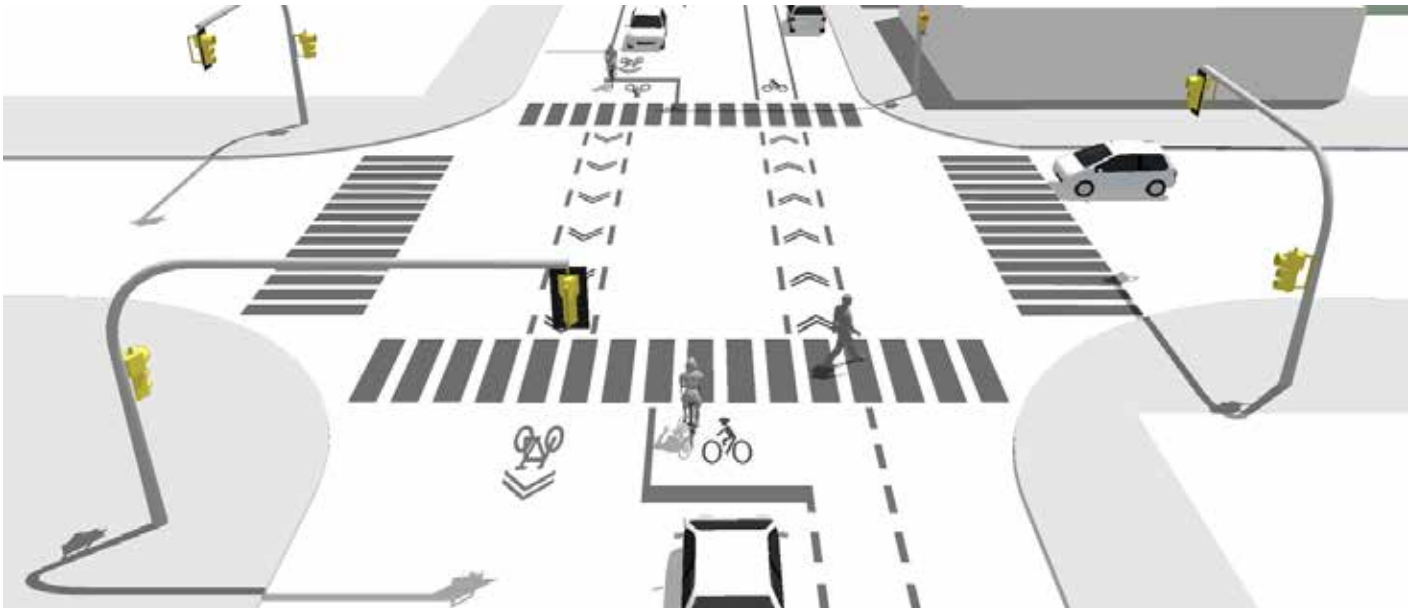
Intersection crossing markings, also referred to as "peg-a-tracking," indicate the intended path of bicyclists through an intersection and provide a clear boundary between the paths of through bicyclists and either through or crossing motor vehicles in the adjacent lane. Peg-a-tracking is normally comprised of dashed "skip" lines through the intersection at the same width of the associated bicycle facility. They may also feature chevrons indicating the proper direction of travel.

A bicycle box, is a designated space at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get in front of queuing traffic during a red signal phase. The bicycle box serves a number of functions, including:

- Facilitating visible left turn movements for cyclists by positioning them at intersections during the red signal phase.
- Helps prevent 'right-hook' conflicts with turning vehicles at the start of the green signal phase.
- Groups bicyclists together to clear an intersection quickly, minimizing impediment to transit or other traffic.

People walking also benefit from the bicycle box because they reduced vehicle encroachment into the crosswalk.

It is recommended that Marquette implement intersection markings in conjunction with the proposed bicycle facilities. Additionally, a bicycle box should be utilized at the north and south sides of the Third Street and West Hewitt Avenue intersection. The bicycle box here will raise the visibility of cyclists at the corridors only signalized intersection and help facilitate safe left and right turns onto the proposed West Hewitt Avenue bikeway (if a bicycle lane is implemented along West Hewitt Avenue, it too should receive the bicycle box treatment). The bicycle lane will also provide more space between stopped cars and people crossing the street.



Third Street and Hewitt Avenue looking South. A bike lane on the west side of the street protects riders laboring up-hill, while a sharrow aids in visibility of cyclists moving downhill on the east side of the street.



Sidewalk Bicycling

In order to limit bicycling on the sidewalk, it is recommended that the City of Marquette Police Department routinely enforce a policy that limits sidewalk riding along commercial streets. Additional measures, such as adding signs and sidewalk markings are not preferred but may be implemented on a pilot basis alongside the implementation of more safe and visible bikeways along Third Street.



Bicycle Parking

Between the recently implemented custom bicycle racks and those provided by business owners, there currently is an adequate supply of bicycle parking. However, the quality, design, and placement of existing and future racks should consider best practices when implemented (see the Association for Pedestrian Bicyclists Bicycle Parking Manual, as well as the bicycle parking regulations proposed in the draft Third Street Corridor Form-Based Code).

While the custom racks are attractive, the current design makes it difficult to lock bike securely (both the wheel and the frame). This lack of security and support is perhaps why many bicycles are locked to street signs or other fixed objects along the corridor rather than the racks themselves.





Given the narrow sidewalks and the number of bicycles routinely parked at racks, signs, benches etc., it is recommended that the City of Marquette pilot test the use of a bicycle corral, which allow for a number of bicycles (up to 12) to be parked in front of a single automobile space. Such corrals could also be located between the nearest parallel parking space and the street corner, which makes efficient use of otherwise wasted space without compromising site lines (see page C85 for a variety of alternative curbside uses, including more information about bicycle corrals).

Finally, the provision of a modern bicycle sharing system is an increasingly popular and effective way for cities to provide mobility options for residents and visitors alike. It is recommended that the City of Marquette partner with Northern Michigan University in studying and perhaps implementing a small-scale, seasonal bicycle sharing system. Such a system could greatly encourage bicycling along and across the Third Street corridor, between the lakefront, downtown, and around campus (see page C85 for a variety of alternative curbside uses, including how a bicycle sharing station can be integrated into the Third Street streetscape).

Third Street Corridor: Walking

The small blocks, provision of sidewalks, and range of land uses in close proximity make the Third Street the heart of a walkable neighborhood. However, small-scale improvements could further improve the comfort and encourage people to linger, shop, and socialize longer. Several bicycling recommendations (bicycle boxes, bicycle corrals, narrowing of travel lanes to allow for a bicycle lane, preventing sidewalk riding etc.) improve the walkability of Third Street. That said, the following recommendations outline a small number of additional enhancements that will continue to make walking along Third Street a safe and welcoming experience.

To preserve and enhance walking along the corridor, the City of Marquette should utilize the provisions outlined in the draft form-based code to reduce the amount of surface parking fronting the street and the attendant, sometimes redundant, curb cuts that making walking uncomfortable. Furthermore, the replacement of existing buildings with surface parking should also be prevented so that Third Street does not develop into a suburban environment devoid of its current scale and pedestrian-friendly charm.

To increase the effective width of the sidewalks at the street corners and improve pedestrian visibility, curb extensions may be considered. While there is some perceived seasonal difficulty (snow removal) with the implementation of such infrastructure, it is recommended that Marquette first provide the benefits associated with curb extensions without incurring the cost or the vertical curbing by simply using paint. (see Temporary Curb Extensions section on page C85)

A number of attractive new wooden benches have been placed throughout Marquette, including along the Third

Street corridor. These "street seats" provide character, a generally more inviting atmosphere and a needed place to rest, take a phone call and socialize. Businesses should also be encouraged to provide outdoor café seating or contribute their own seats or benches to Third Street, such as the one found at Frosty Treats

Additional pedestrian amenities intended to create a unique, traffic-calmed, pedestrian-friendly environment are suggested in the following "Creativity in the Curb" lane section, which seeks to maximize currently underutilized asphalt space with inexpensive, seasonal and even temporary streetside amenities.



Parklet in Asheville, NC

Tactical Urbanism

Incremental, small-scale street level improvements are increasingly viewed as an affordable way to stage larger investments in the built environment. Indeed, there is a conservative intelligence to implementing low cost, short-term pilot projects before investing hundreds of thousands, if not millions of dollars on the build-out of permanent infrastructure. If the pilot project isn't as effective as hoped, entire budgets are not exhausted, political capital is not wasted, and future designs may be calibrated to absorb the lessons learned from what is surely a unique and dynamic context. This approach to city-making is called "tactical urbanism," and it allows a host of local actors – from citizens to city leaders – to work quickly and creatively to test new and/or existing physical plans. In short, tactical urbanism is generally defined by the following five characteristics:

- A deliberate, phased approach to instigating physical and/or social change;
- An offering of local ideas for local planning challenges;
- Short-term commitment and realistic expectations;
- Low-risks, with a possibly a high reward; and
- The development of social capital via partnerships between citizens, government departments and institutions, non-profit/NGOs, and their many constituents.

Despite the emphasis on the short-term, tactical urbanism is most effective when used in conjunction with long-term planning efforts that marry the needs of today with the vision projected of tomorrow. When included as part of a public planning and project implementation process, tactical urbanism short-term approach is capable of building trust amongst various interest groups, community leaders, and city leaders who often struggle with outdated regulatory structures, competing goals, and finite economic resources. The following recommendations include short-term and inexpensive responses to a variety of specific bicycle and pedestrian safety and mobility challenges found along the Third Street corridor.

Creativity in the Curb Lane Parklets

Parklets are extensions of a public sidewalk space and are intended to provide amenities and green space for public use. They most commonly replace 1-2 underutilized parallel or angled curbside parking spaces with public seating, landscaping, public art, bicycle parking, or other public amenities. While durable materials are used, parklets are designed for quick installation and easy removal during emergencies or seasonal cycles. While local businesses commonly sponsor the design, implementation, and maintenance of parklets, they remain extensions of the public right-of-way and therefore do not require the purchase of food, drinks, or goods from an adjacent, sponsoring business.

While parklets increase the balance of public space and help citizens and business owners envision the potential

of city streets, they also encourage pedestrian activity, increase non-motorized transportation, and can

contribute to increased economic activity. A study of parklets was conducted in San Francisco using pedestrian counts, stationary activity counts, pedestrian surveys, and business surveys at the location of three separate parklet locations. The results revealed:

- A 44% increase in average foot traffic on Stockton Street after the parklet was installed;
- The average number of people stopping to engage in stationary activities nearly tripled at all three locations;
- Stationary activities included standing, waiting for transport, sitting on private or public seating, and being physically or culturally active;
- An increase in the number of bikes parked at each parklet;
- Businesses maintained or increased customer levels;
- Businesses reported no concerns about decreasing availability of nearby street parking;
- And the number of people who stopped to socialize and engage with others increased significantly at all three locations

Other cities with parklets also report an increase in economic, social, and physical activity, including Long Beach, CA where the city's first two parklets lead to the creation of 10 new jobs at the first two sponsoring businesses.

Dining Decks

Dining decks are temporary or seasonal structures built within a curbside parking space(s). They provide restaurants with outdoor seating space where sidewalk space is otherwise limited. (Birmingham Dining Deck). The key difference between dining decks and parklets are that only patrons of the restaurant may occupy the dining decks, whereas parklets are developed as truly public space where purchases do not have to be made to enjoy the space. Additionally, the furniture and design of the dining deck is usually in cohesion with the restaurant and patrons may be waited on while on the deck, while parklets take on a wide variety of design themes. Finally, dining Decks do not ultimately increase the supply of accessible public space but they do help bring economic and physical activity to city streets and local restaurants.



Dining deck in Birmingham, Michigan

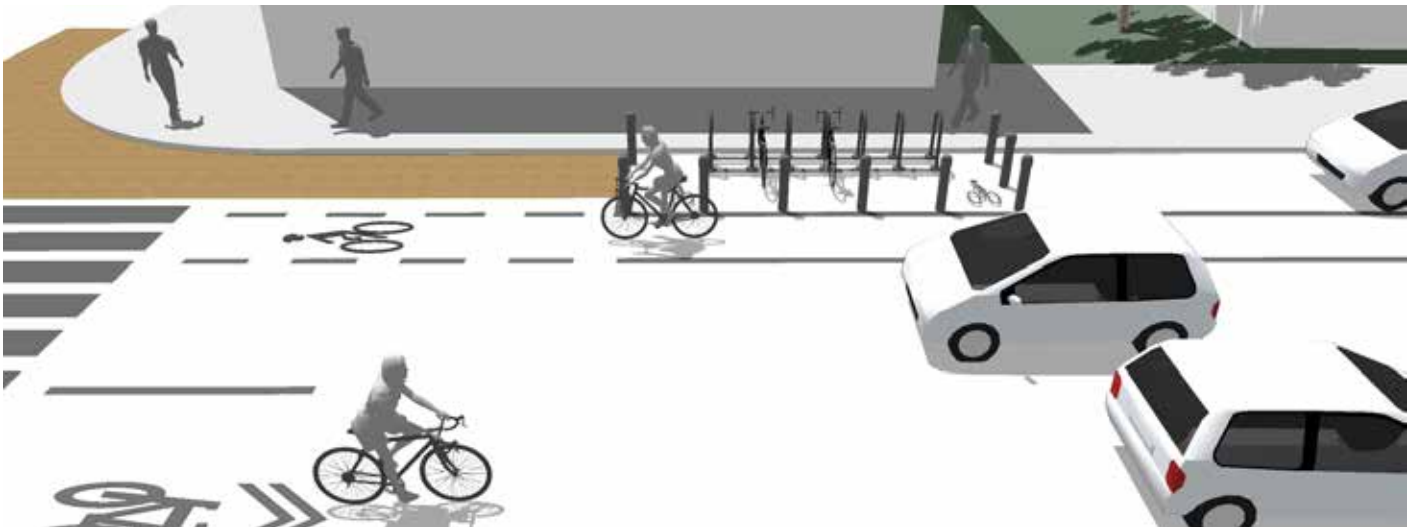
Bicycle Parking Corrals

An alternative method for providing additional short-term bicycle parking facilities is to consolidate bicycle racks within a conventional curbside-parking lane. Such facilities are often referred to as bicycle corrals, which are increasingly common in commercial corridors like Third Street with narrow sidewalks, moderate to high pedestrian activity, commercial sidewalk use, and bike parking demand crowd limited sidewalk space. Bicycle corrals provide the following benefits:

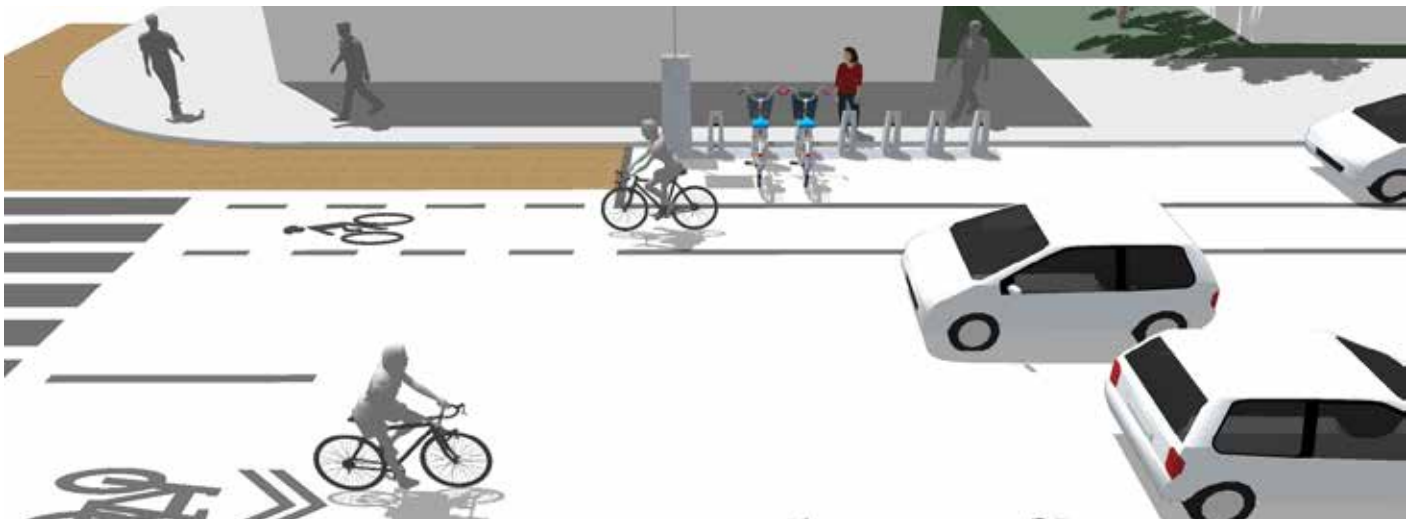
For businesses: Corrals provide 8-12 more parking spaces than a conventional car parking space and help customers associate the business as being bicycle-friendly. Removing bicycle parking from the sidewalk also provides more space for outdoor seating and/or merchandise, and gives the business a more visible presence for people driving or bicycling.

For People Walking: Corrals help clear narrow sidewalks of bicycles and therefore provide more space for walking. The improved sitelines for drivers also allows pedestrians to be more visible when crossing near streets corners.

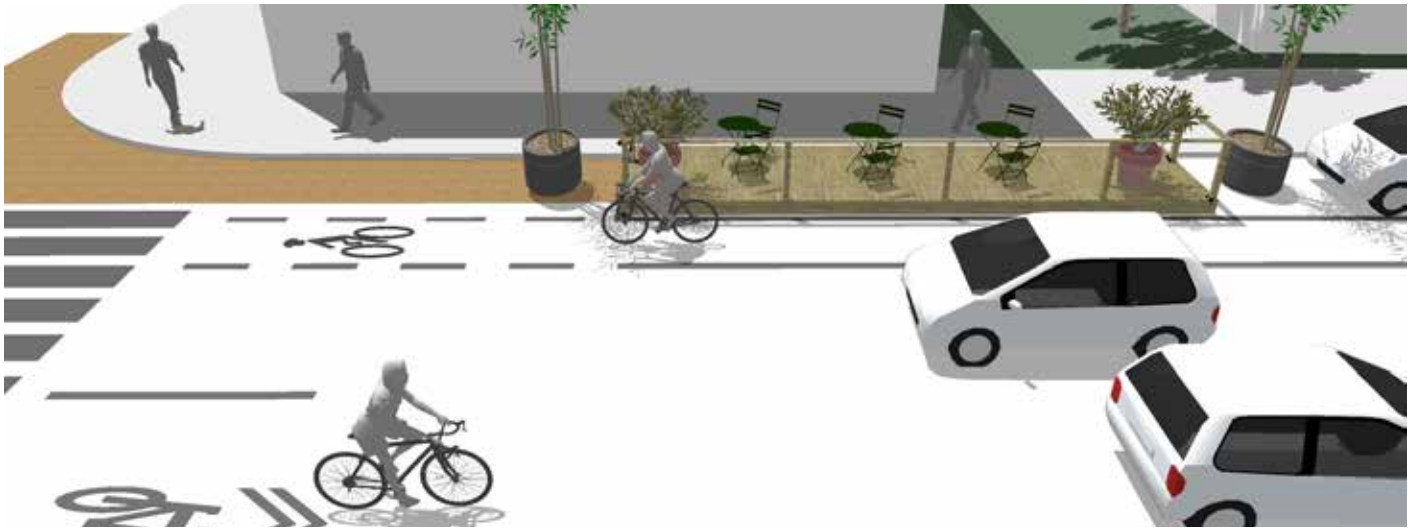
For People Bicycling: Corrals raise the visibility of cycling along a given corridor/within a neighborhood.



Bike Corral in parking lane



Bike Sharing system in parking lane



Dining deck / parklet in parking lane

For People Driving: Corrals improve visibility at intersections by eliminating the opportunity for large vehicles to park near street corners.



Bike corrals offer an alternative parking solution

Temporary Curb Extensions

Street corner curb extensions shorten the street crossing distance and make more people more visible at intersections. They also help slow traffic, particularly when they are designed to reduce the turning radius of automobiles. Despite these benefits, the possible extension of curb extensions sometimes perceived as a nuisance to the snow removal process. It is therefore recommended that temporary curb extensions be pilot tested at select locations, such as Third Street and Hewitt Avenue, so that the benefits are conferred to people walking without the snow removal impact or initial expense of building permanent infrastructure. If deemed successful they may be made permanent at a later date, or remain as a very light, easy-to-maintain pedestrian amenity.

Recommendations

It is recommended that the City of Marquette create a policy allowing for the seasonal implementation of parklets and/or dining decks, bicycle corrals, and temporary curb extensions to further enhance social, economic, and safe physical activity along the Third Street Corridor. The eventual creation of a Third Street Business Improvement District (BID) may help organize and maintain these amenities or local businesses may choose to sponsor their own if the City develops a low-barrier approval process, which is also recommended. Parklets, for example, can be prototyped or piloted in a variety of ways, including experimenting with their use over one-day or even weekend-long events using very basic materials (see Asheville Parklet pg C83). One opportunity is to work with a local businesses or organization(s) to participate in International Park(ing) Day (ParkInProcess-OnwardState.com), which for one day encourages the repurposing of parking spaces into park space. Many non-profit organizations that participate in park(ing) days think of themes or activities to attract passersby and share the concept of increased urban space for the public.

Maintenance

Who will be responsible for routine maintenance, street sweeping, and snow removal should be considered in the siting of parklets, dining decks, or bicycle corrals. Low-key maintenance agreements are commonly developed between the City and a "sponsoring" businesses or an entire Business Improvement District (BID). In many snow-belt communities, such creative curbside uses are removed in the winter months to reduce the complication of plowing and storage of snow, as well as to free up additional parking spaces reduced during the winter season.

Resources

Parklets:

- San Francisco Great Streets Project's Parklet Impact Study (2011)
- UCLA's Reclaiming the Right-of-Way: A Toolkit for Creating and Implementing Parklets. Luskin School of Public Affairs (2012)
- San Francisco Planning Department's Parklet Manual (2013)

Bicycle Corrals:

- The Association for Pedestrian and Bicycle Professional's (APBP) Bicycle Parking Guide – Second Edition (2011)

Universal Design

Background

A sustainable Third Street should be safe and accessible for all users regardless of age and ability. The concept of universal design is one standard to achieve this and is defined as "the creation of places, products and programs to be welcoming, safe, enjoyable and useable by all persons regardless of age and ability." Historically, the Americans with Disabilities Act was the legal framework for many design considerations addressing the needs of users with limited ability. Universal Design goes beyond ADA requirements and establishing its principles along Third Street will not only enable patronage from all users, but welcome it.

The guiding principles of Universal Design include: *Connectivity, Equitable use, Perceptible information, Simple and Intuitive use, Flexibility in use, Approach, use and effort, and Tolerance for error.* A full explanation of these principles is included at the end of this section. With regard to these principles in consideration with the Third Street Sustainable Development Plan, the design team, with significant input from the Marquette Access Group has compiled recommendations for the following areas: public transit, parking, sidewalks, the building entrance and building retrofits.

Public Transit: Discussion

The Third Street Corridor would be an appropriate place to "test" extended public transit hours. As the main connecter between downtown and NMU, consistent traffic throughout the day may produce sufficient ridership to justify extended hours. More frequent and extended service, if offered consistently, has the potential to attract would-be motorists, alleviating traffic and the demand for on-street parking. This would expand the amount of time limited ability users could depend on transit for daily needs.

Additionally, Marq-Tran and the planning department should consider how to improve bus stops for the safe loading and unloading of all riders. This may best be achieved through a dedicated no-parking zone for bus stops. This will allow drivers to pull the bus up to the curb where riders can easily step on and off the bus. This is increasingly important when the wheelchair lift is used. Passengers of all ability levels should not have to exit in the traffic lane and cross through the proposed bicycle lane and on-street parking lane to reach the sidewalk.



Transit should have clear access to the curb for safe load and unloading of passengers.

Public Transit: Recommendation

Marq-Tran should be engaged to extend hours of operation and improve transit stops for safe loading and unloading.

Parking: Discussion

Specific on-street parking spaces should be labeled for handicapped parking at a rate of one handicapped space per 20 total parking spaces. Should on-street parking expand using strategies prescribed in the Downtown Parking Study, 210 on-street spaces should include at least 10 for handicapped parking, or one space per block. These stalls require additional length in the rear and should be free of obstruction on the passenger side, as service vehicles may be equipped with wheelchair loading and unloading equipment.

Many similar principles apply to off-street parking. Off-street lots should maintain a hard, smooth surface from handicapped stalls to building entrances and should be a priority for snow removal. Furthermore, off-street parking lots should clearly direct patrons by providing infographic signs leading to building entrances or certain streets. This practice will not only benefit users of all abilities, but also visitors unfamiliar with the area. As there are private and public off-street parking lots along Third Street, successful management will require cooperation from business owners and city agencies.

Parking: Recommendation

On-street and off-street parking should provide for handicapped drivers and service vehicles.



This example of wayfinding includes icons and colors to characterize destinations, and also includes distance and travel time. This is beneficial to users of all ability levels.

Sidewalk: Discussion

The sidewalks along Third Street should maintain an uninterrupted non-slip surface. Sections of sidewalk with regularly standing water should be replaced to ensure proper drainage. Given Marquette's extreme winter climate, sidewalks along Third Street should be inspected on an annual basis and scheduled for improvement accordingly.

Given already narrow sidewalks along Third Street, it is essential that a clear path of travel be provided by property owners and enforced by city officials. There are three main obstructions of concern: snow, signs or outdoor displays and doors. Clearing sidewalks of snow, without pushing the snow into the street and eliminating on-street parking, is a significant challenge and will require public and private cooperation. However, many successful downtowns and business districts effectively accomplish clear roads and sidewalks when both are the responsibility of the city or DDA. This may be the most efficient organization, but will likely require private investment from the businesses along Third Street. Street signs and merchandise displays can be great advertising and a way to liven up the public realm, but should be cognizant of foot traffic patterns and accommodate persons with limited sight or ability. Last, any doors that when opened encroach regular travel path should be properly signed with warnings for passersby on the street (displayed at a readable level) as well on the inside of the door for patrons leaving the store.

Road crossings should be properly graded and equipped to serve persons of all abilities. The approach from sidewalk to road level at every intersection can accommodate persons with limited availability through a gradual slope that requires minimal effort and is equipped with detectable warnings to signify the transition of the sidewalk into the street. Additionally, at the lighted intersection of Hewitt and Third Street, pedestrian signals should be upgraded to include both visual and audible crossing indicators.



A forgiving slope and detectable warning make this road crossing more safe and welcoming.

Sidewalk: Recommendation

Third Street's sidewalks should provide a consistent surface, a clear path of travel and safe road crossings.



The availability of a doorbell to request assistance if necessary is inviting and easy to install.



Accessibility retrofits can be costly and could be encouraged through a grant or low-interest loan program.

Building Entrances: Discussion

Where feasible, power assist doors should be installed. Power assist doors are either motion-sensored or operated by the push of an easily accessible button and allow for convenient access for limited-ability users.

In many buildings along Third Street, power assist doors may not be feasible, however small improvements can have marked impact for users. For patrons who have a difficult time opening a door, a simple doorbell in a visible place can be a valuable instrument to signal for help from inside. Also, displaying the phone number of a business on the door or clearly labeled on a window may also serve the same purpose. This should be reinforced by training for employees on how to best assist patrons with limited ability.

Once inside the door, it is important that businesses understand the amount of room necessary to maneuver for someone with limited ability or in a wheel chair. This can mean a clear path to a register or a sufficiently wide vestibule or airlock so as to avoid conflict between entering and exiting patrons. Last, though many stores are laid out and merchandised to appeal to customers on foot, consideration should be given to children and others who move through a store at a different height to avoid potentially hazardous arrangements.

Building Entrances: Recommendation

Entrances to Third Street Businesses should be welcoming and easy to use with clear indications of how a patron may request assistance.

New Buildings and Building Retrofits: Discussion

New construction along Third Street should consider all users in design. This is especially important when concerning the issues already discussed in this section. Every new project should make Third Street more safe, welcoming and accessible.

Many buildings along Third Street have been converted from houses into businesses or offices. Other buildings were built in a time when accommodating persons with disabilities was not the law. However, retrofitting existing buildings for accessibility can pose a significant cost to building owners. To assist owners of existing buildings on Third Street wishing to improve the accessibility of their business, the city should consider setting up a grant program or low interest loans. Incentivizing accessibility retrofits will ultimately make Third Street more welcoming for all users.

New Buildings and Building Retrofits: Recommendation

New construction should strive to exceed ADA requirements to ensure safe and welcome use by all users. Existing buildings should be provided with support if an accessible retrofit is desired.

Conclusion

Creating a safe and welcoming environment for all Third Street users is a worthy task and one that will involve business owners, residents, non-profit organizations and city officials. Third Street is in a position where many of the recommendations listed above can easily be achieved through an organized effort. The planning department and the DDA should take the lead in addressing corridor wide issues and educating individual business owners on the ways they can improve accessibility. Achieving a more universally designed Third Street will not only benefit businesses, but welcome a broader base of frequent visitors.

Appendix: The Principles of Universal Design

CONNECTIVITY.
Universally Designed places, products, and programs are connected and engaged for their intended purpose with people of all ages and abilities.

EQUITABLE USE
Universally Designed places, products, and programs must be accessible to and usable by a broad range of individuals to achieve as normal experience as is reasonably possible.

PERCEPTIBLE INFORMATION
Universal Design carries required information effectively to the user, without exception for varied abilities or culture.

SIMPLE and INTUITIVE USE
Universally Designed places, products, and programs should be rapidly understandable without regard to the user's experience, knowledge, language skills, or level of concentration.

FLEXIBILITY IN USE
Universal Design accommodates a wide range of individual needs, preferences and abilities while offering rapid and easy adaptability.

APPROACH, USE and EFFORT
Universal Design provides for appropriate size and space, allowing for manipulation and ease of use by the world's wide spectrum of people with minimum physical effort required.

TOLERANCE FOR ERROR - SAFETY
Universal Design provides for minimal danger to self or others by individual's error or individual's participation.



Historic Aerial of Third Street Corridor shows the clear rural to urban transect that can be protected and enhanced by a new Form-Based Code.

ACTION

'Everything is needed'

When the great 20th Century planner John Nolen was asked by Congress in 1920 what American cities needed to become great, he replied "Everything, and all at once." Fortunately, Marquette is in a better position, with a wealth of good buildings, civic space, infrastructure and other basic components of a civilized community. However, it will take a continuous and extensive effort using all strategies and tactics available to bring Marquette's Third Street Corridor to its highest potential.

Now

Begin painting, new signage, landscape , and any action already allowed that supports the Vision of the Third Street Village

Experiment with Tactical Urbanism strategies (Parklets, dining decks, etc) that are allowed or not prohibited. Coordinate with City and Downtown Development Association.

Review draft Form-Based Code and revise as needed.

Bring recommendations for bike and alternative transportation, and shared parking into existing plans and begin funding mechanism.

Use Vision Plan to develop branding and marketing strategy for Third Street Village by Downtown Development Association, retail owners and landlords and residents.

Soon

Revise draft Form-Based Code, adopt as final Zoning by Planning Commission and City.

Identify projects that will be newly allowed by the Form Based Code and encourage implementation, along with publicity of the results.

Recruit local and regional retailers that are aligned with the Vision Plan.

Support existing business through low interest loans or grants to do small upgrades, such as painting, signage, seating etc.

Start a summer youth program to build fence, and possibly parklets.

Plan for International PARK(ing) Day. (http://parkingday.org) - September 20, 2013

Start discussion with University about possible development and gateway at end of Third Street.

Develop housing strategy that fits Vision Plan and coordinate with University and neighborhood.

Later

Continue all strategies above: adjust Form-Based Code as needed.

E

Form Based Code

1.0 Third Street Corridor Form-Based Code Introduction

1.1 Intent

A. The Third Street Form-Based Code is designed to foster infill redevelopment in a sustainable *mixed-use* pattern as part of a vibrant, diverse, urban corridor.

B. This Chapter is intended to promote traditional urban form and a lively mix of uses, allowing for *shopfronts*, sidewalk cafes, and other commercial uses at the street level, with wide sidewalks and shade trees, overlooked by upper *story* residences and offices.

C. Physical access and a sense of connection to the historic downtown, the university and the adjacent neighborhoods are very important to the future of the corridor.

D. A range of open spaces including *plazas*, *squares*, and playgrounds should be distributed within neighborhoods and along *mixed-use* corridors.

E. Buildings and landscaping should contribute to the physical definition of thoroughfares as civic places.

F. The Transect District descriptions in Sec. 1.3 Transect Districts shall constitute the intent of this Chapter with regard to the general character of both of these environments.

1.2 Conflicting Ordinances

Wherever there appears to be a conflict between the Third Street Form-Based Code and other sections of the Marquette City Zoning Ordinance, the requirements specifically set forth in the Third Street Form-Based Code shall prevail. For development standards not covered by the Third Street Code, the other applicable sections in the Marquette City Zoning Ordinance shall be used as the requirement. Similarly, all development shall comply with all relative Federal, State or local regulations and ordinances regarding health and safety.

1.3 Transect Districts

A. Zoning districts under this Chapter are limited to the following Transect District designations:

a. T5 Urban Center (T5): This district consists of higher intensity *mixed-use* buildings that accommodate retail, offices, institutional, townhouses and apartments. The thoroughfares have wide sidewalks and buildings are set close to the sidewalks.

b. T4 General Urban (T4): This district includes a mix of uses but is primarily in the form of medium intensity residential structures. It may have a wide range of building types: houses, townhouses, duplexes, small apartment buildings, *live-work* units, and small commercial buildings. Setbacks and landscaping are variable. Commercial uses are freely permitted although the form is more residential in character than the T5 District.

1.4 Approval Process

In order to obtain zoning compliance approval for construction within the boundaries of this Chapter, an applicant shall follow the process outlined in section 80.62 of the City of Marquette

Zoning Ordinance; however, Planning Commission review and approval of a site plan is not necessary unless otherwise provided in this Chapter.

1.5 Appeals

Deviations from the Building Form Standards (see Table 4 and Table 5) can be approved only through a variance process as provided for in section 80.64.4.B of the City of Marquette Zoning Ordinance or by the Administrative Waiver process pursuant to Sec. A below.

A. An administrative waiver is a ruling that would permit a practice that is not consistent with a specific provision of this Chapter but is justified by the provisions of Sec. 1.1 Intent. The Zoning Administrator shall have the authority to approve or disapprove administratively a request for an administrative waiver if listed as eligible for an administrative waiver within this Chapter.

B. General Standards. No administrative waiver shall be approved unless the Community Development Director or his designee shall find:

   a. The administrative waiver is consistent with Sec. 1.1 Intent of this Chapter.

   b. The administrative waiver is consistent with the Comprehensive Plan.

   c. The administrative waiver will not materially endanger the public health or safety or constitute a public nuisance if located where proposed and developed according to the plans and information submitted and approved.

   d. The administrative waiver will not substantially injure the value of adjoining property; or that the use is a public necessity.

   e. The location and character of the use, if developed according to the plans and information approved, will be in harmony with proximate land uses, and consistent with the purposes of the district.

   f. The administrative waiver will advance the presence of the intended form of the development.

   g. The administrative waiver will advance pedestrian friendly activity.

   h. The administrative waiver will provide for the enhancement, coordination or demarcation between the public and private realm.

   i. Specific Standards. Items eligible for administrative waivers have specific standards in the sections of the Chapter related to those items.

   j. Any decision regarding a grant or denial of an administrative waiver shall in writing state the reasons for the grant or denial and shall be delivered to the applicant by either first class mail or electronically.

C. The request for an administrative waiver, waiver, or variance shall not subject the entire application to public hearing, but only that portion necessary to rule on the specific

issue requiring the relief.

1.6 The Third Street Regulating Plan

A. The regulating plan is the controlling document and principal tool for implementing the Third Street Code. It identifies the transect district (T-zone) for the building site (See Table 4 and Table 5), which provides standards for the disposition of each lot, and illustrates how each relates to the adjacent properties and to the street.

B. New development on the Third Street corridor shall provide sidewalk improvements, *civic space*, and contribute to a shared parking and access strategy to create a complementary pattern for growth and development. The rules below will enhance a compact, *mixed-use* corridor that complements the adjacent neighborhoods and provides flexible opportunities for residential, employment, and commerce uses.

C. Parking and access

a. Access and parking for lots fronting the Third Street corridor is regulated by this Chapter.

b. The location of new curb cuts shall be limited to no more than one per 100 feet of street *frontage*.

c. Where designated on the regulating plan:

I. Alleys shall provide access to the rear of all lots. Alley construction within the rear setback is required as part of a redevelopment project. Alleys shall be constructed to meet the City construction standards in order to be suitable for emergency and service vehicle access pursuant to Sec. Table 20. Access.

II. Alleys shown on the regulating plan represent suggested & approximate configurations. Access through the *block* and to the rear of lots within the *block* is required. The specific configuration should include shared parking areas and other uses so long as reasonable service access is unimpeded.

D. Bicycle parking is to be allocated across the Transect Zones by type, but detailed in quantity and location by land use, demand, and building size.

TABLE 1. THIRD STREET CORRIDOR REGULATING PLAN



1.7 How to Use this Chapter

1.8 There are two basic steps to understand what the code prescribes on property within the Third Street Corridor District. The Chapter will prescribe building placement, the parameters for its three-dimensional form, both required and allowed architectural/functional elements, and the range of allowable uses. Following are the steps to follow in using this Chapter:

A. Consult the regulating plan, and note this plan identifies two (2) sub-districts within the Third Street Corridor District. Find the property in question. Note the color of the sub-district — this determines the applicable building form standards, streetscape standards and landscape standards for each property. See regulating plan key for guidance.

B. Find the appropriate Building Form Standards (BFS) (Table 4 or Table 5) in the code (color coded to match the regulating plan). The BFS explains the basic parameters for building on a particular site in terms of building placement and building form. See Use Table 13 for specific building use.

C. See Sec. Table 16. Public Frontage Type for illustrations of general parameters pertaining to streetscape improvements.

1.9 Definitions.

Bicycle Corral: a series of bicycle parking racks that replace on-street automobile parking. Typically applied where bicycle parking and demand and pedestrian volumes are high. Depending on its configuration, a single motor vehicle parking space may yield between 6 and 12 bicycle parking spaces.

Bicycle Locker: an enclosed and secured locker that provides bicycle parking for long-term use.

Bicycle Shelter: a roofed shelter that provides protection from the elements on three sides and multiple bicycle racks for public use.

Bicycle Sharing: a fleet of bicycles made publicly available for shared use to individuals for a short period of time

Block: the aggregate of private lots, passages, rear alleys and rear lanes, circumscribed by connecting thoroughfares.

Civic Space: an outdoor informal or formal area permanently dedicated for public use.

Elevation: an exterior wall of a building not along a *frontage line*. See: facade.

Encroach: to break the plane of a vertical or horizontal regulatory limit with a structural element extending into a setback, into the public frontage, or above a height limit.

Encroachment: any structural element that breaks the plane of a vertical or horizontal regulatory limit extending into the public frontage setback, or above a height limit.

Facade: the exterior wall or *elevation* of a building that is set along a *frontage line*.

Forecourt: a *private frontage* wherein a portion of the *facade* is close to the frontage and the central portion is set back.

Frontage: the area between a building *facade* and the vehicular lanes, inclusive of its built and planted components. Frontage is divided into private and public *frontages*.

Frontage buildout: the percentage of the lot width that is occupied by the building *facade* at the front setback.

Frontage Line: a lot line bordering a public frontage. *Facades* facing *frontage lines* define the public realm and are therefore more regulated than the *elevations* facing other lot lines.

Landscaped Area: the area of a lot or parcel exclusive of building footprints, driveway and walkway pavements, and other impervious hardscape areas, and exclusive of ponds, pools and other water features.

Liner building: a building specifically designed to mask a parking lot or a parking structure from a public frontage.

Live-Work: a *mixed-use* unit consisting of a commercial and residential use. The commercial use may be anywhere in the unit.

Lot Coverage: the percentage of a lot that is covered by buildings and other roofed structures.

Mixed-Use: multiple uses within the same building or in multiple buildings.

Outbuilding: an accessory building, usually located toward the rear of the same lot as a principal building.

Plaza: a *civic space* type designed for civic purposes and commercial activities in the morn urban areas, generally paved and spatially defined by building *frontages*.

Principal Entrance: the main point of access for pedestrians into a building.

Principal Frontage: on corner lots, the *private frontage* designated to bear the address and *principal entrance* to the building, and the measure of minimum lot width. Prescriptions for the parking locations pertain only to the *principal frontage*. Prescriptions for the front setback pertain to both *frontages* of a corner lot. See frontage.

Private Frontage: the privately owned setback between the *frontage line* and principal building *facade*.

Secondary Frontage: on corner lots, the *private frontage* not on the primary thoroughfare.

Shopfront: a private building frontage for parking spaces that are available to more than one use with the building entrance at sidewalk grade.

Signs: Signs shall be defined pursuant to Chapter 82 – Sign Ordinance of Title XII – Zoning. Additional definitions are as follows:

> **Band Sign:** A band of text and / or graphics across the width of a building. *Band signs* may have external illumination, and occur just above the top of the first-level glazing, often on an exposed beam face, if present.
>
> **Blade Sign**: A small sign, which is suspended from an overhang, canopy, marquee, or awning, or is suspended from a mounting attached directly to the building wall, and

hangs perpendicular to the building wall. An 8-foot clearance is required between a *blade sign* and finished grade.

Nameplate Sign: A small, flat sign attached to the building *facade* on which the name of a person, copmany, building, etc. is printed or engraved.

Outdoor Display Case Sign: A display case located on the *facade* of a building which displays menus, handbills or posters advertising a scheduled event, performance or film, and merchandise associated with the event, performance or film.

Square: a *civic space* type designed for unstructured recreation and civic purposes, spatially defined by building *frontages* with formal paths, lawns, and trees.

Stoop: a *private frontage* wherein the *facade* is aligned close to the *frontage line* with the first *story* elevated from the sidewalk for privacy, with an exterior stair and landing at the entrance.

Story: a habitable level within a building, excluding an attic or raised basement.

Streetscreen: a freestanding wall built along the *frontage line* with the facade. It may mask a parking lot from the public frontage, provide privacy to a side yard, and/or strengthen the spatial definition of the public realm. (Syn: streetwall).

Substantial Modification: alternation to a building that is valued at more than 50% of the replacement cost of the entire building, if new.

Terrace: a *private frontage* type with a shallow setback and front elevated patio, usually with a low wall at the *frontage line*. This type buffers residential uses from urban sidewalks. *Terraces* are also suitable for outdoor cafes.

Use, Civic: community uses open to the public including: meeting halls; libraries; schools; police and fire stations; post offices (retail operations only, no primary distribution facilities); places of worship; museums; cultural, visual and performing art centers; transit centers; and government functions open to the public.

Use, Commerce: tor the purpose of the Third Street Corridor District, commerce uses shall be considered to encompass all of the following:

1. Executive, Administrative, and Professional Offices
2. Medical and Dental Offices, and Clinics
3. Day Care Centers
4. On-premise Alcohol Sales
5. Sidewalk Cafes
6. Outdoor Food and Beverage Service
7. All of the Civic Use Categories
8. All of the Retail Use Categories
9. Parking Facilities and Structures

Use, Conditional: for the purpose of the Third Street Corridor District, conditional uses (see 3.7.A. of this Chapter) may be considered for placement in the residential classification after review by the Planning Commission in accordance with Section 80.65 of the City of Marquette Zoning Ordinance.

Use, Light Industrial: for the purpose of the Third Street Corridor District, light industrial uses shall be considered to encompass all of the following:

1. Light Manufacturing

Use, Lodging: for the purpose of the Third Street Corridor District, lodging uses are defined as premises available for daily and weekly renting of bedrooms and shall be considered to encompass all of the following:

1. Bed and Breakfast
2. Inn
3. Motel
4. Hotel

Use, Residential: for the purpose of the Third Street Corridor District, residential uses shall be considered to encompass all of the following:

1. Dwelling Units
2. Adult Foster Care Family Home
3. Family Day Care Homes
4. Foster Family Homes
5. Spouse Abuse Shelter

Use, Retail: shall be considered to encompass all of the following:

1. **Retail service**: establishments providing services, as opposed to products, to the general public, including restaurants, finance, real estate and insurance, travel agencies, health and educational services, galleries, and temporary storage of recreational equipment, provided that the temporary storage is ancillary to the primary retail service.
2. **Retail specialty**: Include, but are not limited to the sale of gifts, antiques, flowers, books, jewelry, wearing apparel or craft shops making articles exclusively for sale at retail on the premises.
3. **Retail trade**: Establishments engaged in selling new goods or merchandise to the general public for personal or household consumption and rendering services incidental to the sale of such goods.

Uses subject to appeal: for the purpose of the Third Street Corridor District, uses subject to appeal (see Sec. 3.7 of this Chapter) may occur in the residential use classification after approval by the Zoning Administrator and may be appealed to the Planning Commission in accordance with Section 80.65 of the City of Marquette Zoning Ordinance.

2.0 General Standards

2.1 Instructions

A. Site and buildings plans submitted under this Chapter require administrative approval by the Planning Department.

B. Building and site plans submitted under this Chapter shall show the following, in compliance with the standards described in this Chapter:

   a. For site and building approval:

I. Building Placement

II. Building Specifications

III. Building Use

IV. Parking Standards

V. Fencing Standards

VI. Landscape Standards

VII. Signage Standards

2.2 Pre-existing conditions

A. Existing buildings and appurtenances that do not conform to the provisions of this Chapter may continue in use as they are until a *substantial modification* is requested.

B. The modification of existing buildings is permitted by right if such changes result in greater conformance with the specifications of this Chapter.

2.3 *Civic Spaces* (CS)

A. *Civic spaces* shall be generally designed as described in Sec. Table 2. Civic Space.

TABLE 2. CIVIC SPACE

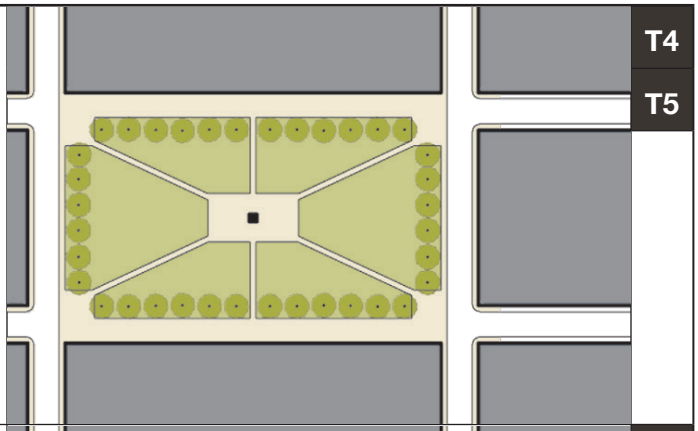
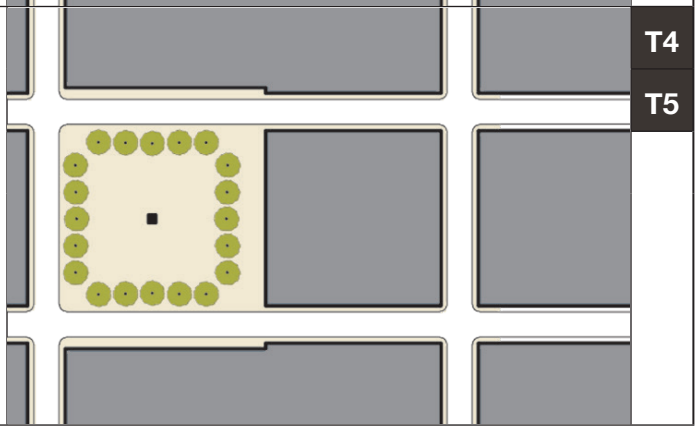
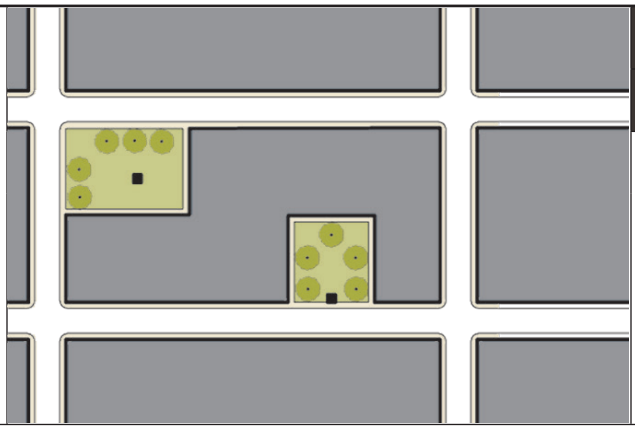
a. Square: A square is spatially defined by building *frontages*. Its landscape shall consist of paths, lawns and trees, formally disposed. *Squares* shall be located at the intersection of important thoroughfares. The minimum size shall be 1/4 acre and the maximum shall be 3 acres.	
b. *Plaza*: A *plaza* shall be spatially defined by building *frontages*. Its landscape shall consist primarily of pavement. Trees are optional. *Plazas* should be located at the intersection of important streets. The minimum size shall be 1/4 acre and the maximum shall be 2 acres.	

TABLE 2. CIVIC SPACE

c. Playground: A playground shall be fenced and may include an open shelter. Playgrounds shall be interspersed within residential areas and may be placed within a *block*. Playgrounds may be included within parks and greens. There shall be no minimum or maximum size.	

2.4 Street Trees

The following should be viewed as an open-ended species list for planting along the Third Street Corridor District.

In an effort to diversify the tree species found within the Third Street Corridor District, and to establish trees with the greatest likelihood of both surviving and thriving, all suitable tree species should be considered for use within the District. Criteria for determining "suitable" tree species include tree characteristics (growth rate, form), site characteristics (available above-ground space, exposure), along with exterior factors such as USDA hardiness zones, microclimates, and plant availability.

TABLE 3. APPROVED STREET TREES

Common Name	Botanical Name	Growth Habit
American Elm	*Ulmus Americana*	high spreading canopy, hardy tree survives harsh winters
Armstrong Freeman Maple	*Acer freemanii 'Armstrong'*	narrow form, smooth gray bark, prone to poor branching angles
Catalpa	*Catalpa speciosa*	medium sized, long legume-like fruits, may be damaged by ice
Green Ash	*Fraxinus pennsylvanica*	variable form, greenish-yellow flowers, can withstand periods of flood
Hackberry	*Celtis occidentalis*	medium sized with slender trunk, pendulous branches, tolerant to urban conditions
Horse Chesnut	*Aesculus hippocastanum*	large deciduous tree with domed crown, stout branches, spectacular spring flowers
Ironwood	*Ostrya virginiana*	small tree, develops round crown, persistent through winter
Ivory Silk Japanese Tree Lilac	*Syringa reticulata 'Ivory Silk'*	upright branching, creamy white flowers, small tree with low branching
Pagoda Dogwood	*Cornus alternifolia*	small with shelving branches, cream-colored flowers

TABLE 3. APPROVED STREET TREES

Common Name	Botanical Name	Growth Habit
Pin Oak	*Quercus palustri*	distinct branching with pyramid shape, fast growing
Red Maple	*Acer rubrum*	upright oval shape, fast growing and tolerant
Red Oak	*Quercus rubra*	round in shape with bristle tipped leaves, tolerates pollution and compacted soil
Sugar Maple	*Acer saccharum*	oval shape, vibrant fall leaves, tolerates shade and most soils

3.0 Parcel Standards

3.1 Building Placement

A. Newly platted lots shall be dimensioned according to Table 4 and Table 5.

B. Buildings shall be placed in relation to the boundaries of their lots according to Table 4 and Table 5.

C. *Lot coverage* by building shall not exceed that recorded in Table 4 and Table 5.

D. *Facades* shall be built parallel to a rectilinear *principal frontage line* or to the tangent of a curved *principal frontage line*, and along a minimum percentage of the frontage width at the setback, as specified as *frontage buildout* on Table 4 and Table 5.

E. Setbacks for principal buildings shall be as shown in Table 4 and Table 5. Setbacks may be adjusted by up to 10% by administrative waiver to accommodate specific site conditions. The Planning Director or his designee shall make the following written findings:

   a. The waiver is consistent with the provisions of Sec. 1.1 Intent.

   b. The waiver is consistent with the Community Master Plan.

   c. The building placement will not materially endanger the public health or safety.

   d. The building placement will not substantially injure the value of adjoining property; or that the use is a public necessity.

   e. The location and character of the building placement, if developed according to the plans and information approved, will be in harmony with proximate land uses, and consistent with the purposes of the district.

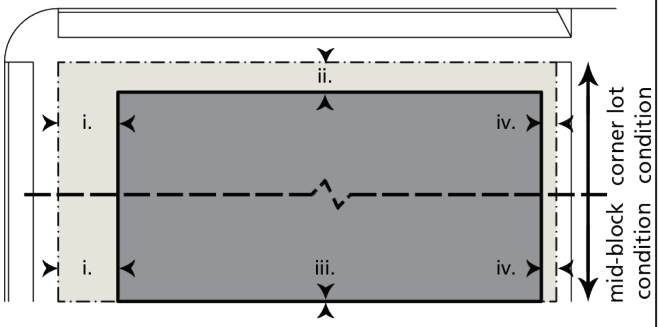
   f. The building placement will not adversely affect the district by altering its character.

F. Rear setbacks for *outbuildings* shall be a minimum of 3 feet measured from the property line. In the absence of rear alley or rear lane, the rear setback shall be as shown in Table 4 and Table 5.

TABLE 4. T4 STANDARDS

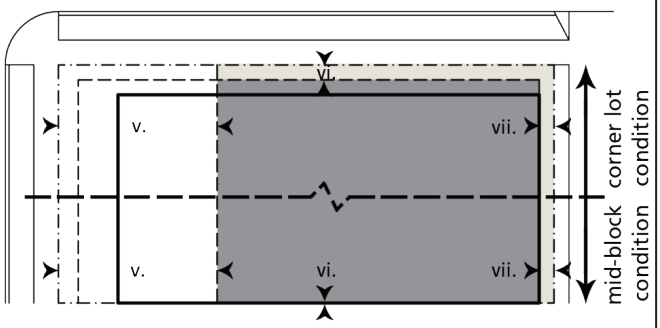
A. BUILDING PLACEMENT

PRINCIPAL BUILDING



i. Front Setback (Principal)	5 ft. – 18 ft.
ii. Front Setback (Secondary)	10 ft. max.
iii. Side Setback	0 ft. or 3 ft. min.
iv. Rear Setback	3 ft. min.
Abutting RG Principal Bldg	15 ft. min.

OUTBUILDING



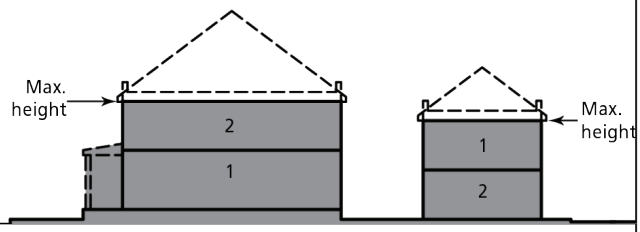
v. Front Setback (Principal)	20 ft. min.
vi. Side Setback	0 ft. or 3 ft. at corner
vii. Rear Setback	3 ft. min.
Abutting RG Outbuilding	10 ft. min.

ENCROACHMENTS

i. Setback *encroachments*	
Open porch if setback greater than 10 ft.	50% max.
Balcony and/or bay window	80% max.
Stoop, *Terrace*	80% max.
ii. Sidewalk *encroachments*	
Awning	80% max.
iii. *Encroachment* depths	
Open porch	6 ft. max.
Balcony and/or bay window	4 ft. max.
Stoop, *Terrace*	6 ft. max.
Awning	within 5 ft. of curb

B. BUILDING FORM

HEIGHT

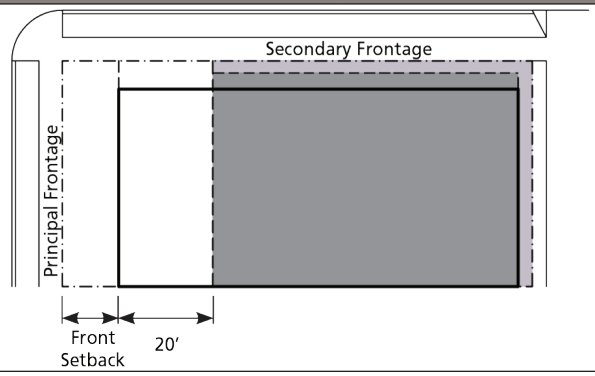


PRINCIPAL BUILDING	
Stories	2
To eave / parapet	30 ft. max.
OUTBUILDING	
Stories	2
To eave / parapet	30 ft. max.

MASS

Lot width	14 ft. min.
Lot coverage	70% max.
Facade buildout at setback	60% min.

PARKING AND STORAGE LOCATION

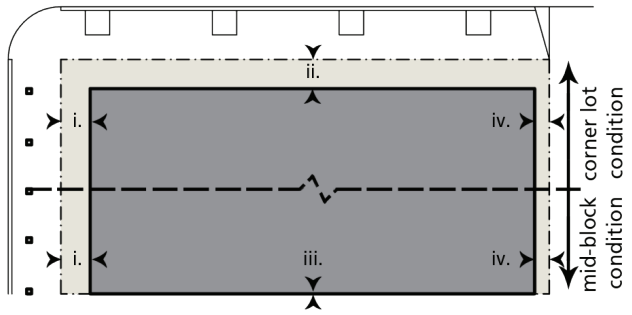


PARKING	
Principal Frontage setback	not permitted
20 feet behind front setback	not permitted
Rear of lot	permitted
TRASH & STORAGE* LOCATION	
Front setback	not permitted
20 feet behind front setback	not permitted
Rear of lot	permitted
* Storage includes boats and recreational vehicles	

TABLE 5. T5 STANDARDS

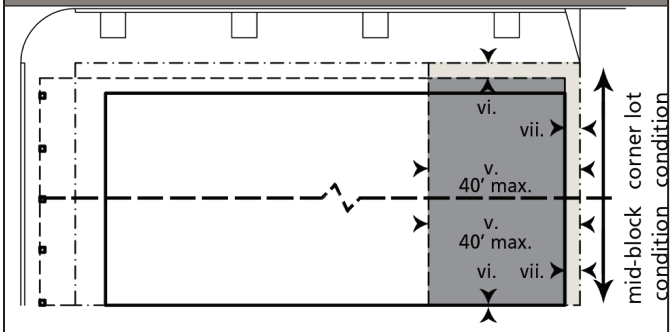
A. BUILDING PLACEMENT

PRINCIPAL BUILDING



i. Front Setback (Principal)	5 ft. – 18 ft.
ii. Front Setback (Secondary)	12 ft. max.
iii. Side Setback	6 ft. max.
iv. Rear Setback	3 ft. min.
Abutting RG Principal Bldg	15 ft. min.

OUTBUILDING



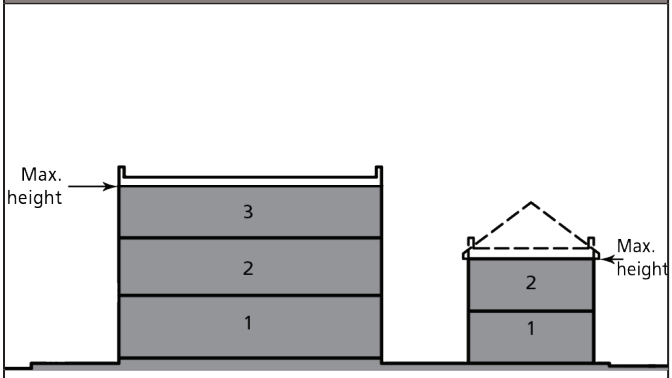
v. Front Setback (Principal)	40 ft. max from rear property line
vi. Side Setback	0 ft. or 3 ft. at corner
vii. Rear Setback	3 ft. min.
Abutting RG Outbuilding	10 ft. min.

ENCROACHMENTS

i. Setback *encroachments*	
Balcony and/or bay window	80% max.
Stoop, *Terrace*	80% max.
ii. Sidewalk *encroachments*	
Awning	100% max.
iii. *Encroachment* depths	
Balcony and/or bay window	6 ft. max.
Stoop, *Terrace*	6 ft. max.
Awning	within 5 ft. of curb

B. BUILDING FORM

HEIGHT

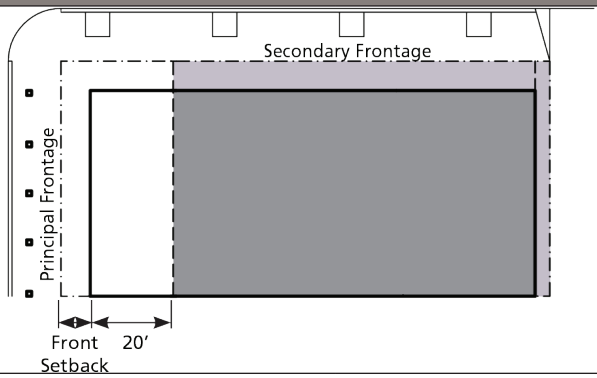


PRINCIPAL BUILDING	
Stories	3 max.
To eave / parapet	48 ft. max.
OUTBUILDING	
Stories	2
To eave / parapet	30 ft. max.

MASS

Lot width	20 ft. min.
Lot coverage	90% max.
Facade buildout at setback	75% min.

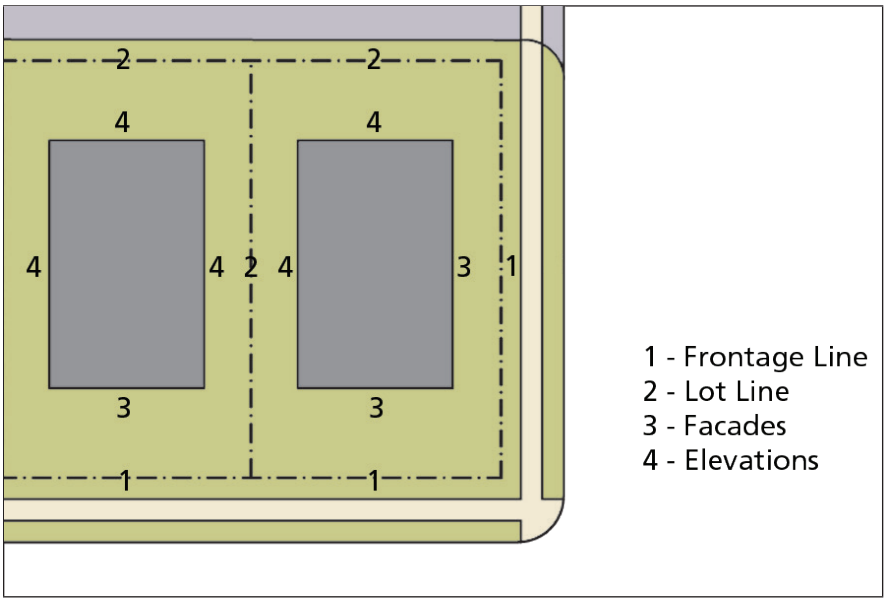
PARKING AND STORAGE LOCATION



PARKING	
Principal Frontage setback	not permitted
20 feet behind front setback	not permitted
Rear of lot	permitted
TRASH & STORAGE* LOCATION	
Front setback	not permitted
20 feet behind front setback	not permitted
Rear of lot	permitted

* Storage includes boats and recreational vehicles

TABLE 6. FRONTAGES & ELEVATIONS



3.2 Building Specifications: Height

A. Building height is pursuant to Table 7, measured as follows:

a. Building height is measured in above ground stories.

b. Stories are measured from finished floor to finished ceiling.

c. Stories above the ground floor are limited to 14 feet after which height they are counted as two stories.

d. For residential uses, a ground floor *story* of 18 feet or less is counted as one *story*. Ground floors exceeding 18 feet in height are counted as two stories.

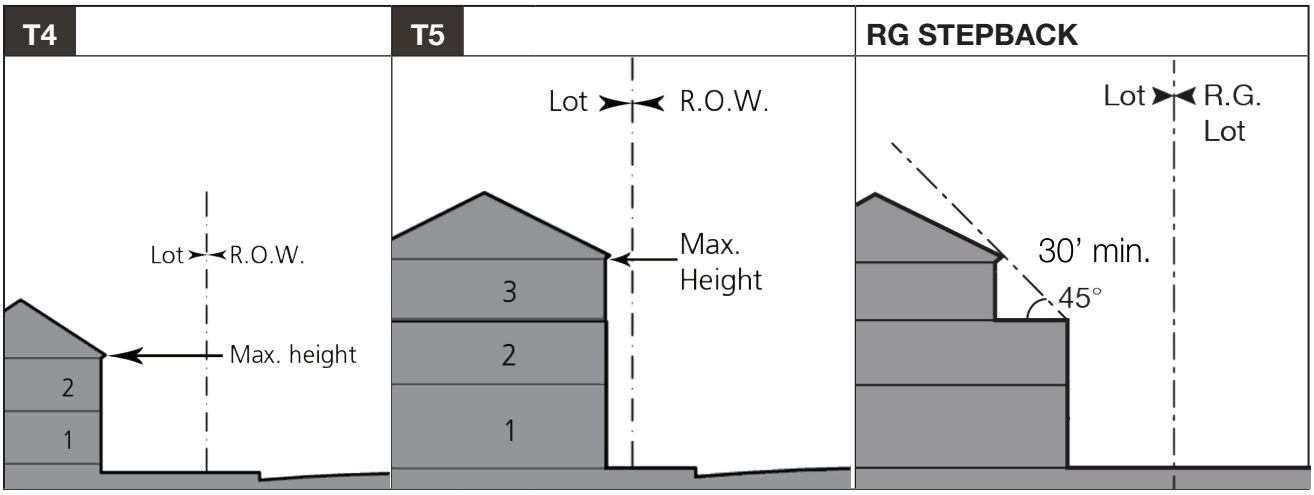
e. For non-residential and *mixed-uses* a ground floor *story* shall be no less than 10 feet in height. A ground floor *story* of 25 feet or less is counted as one *story*. Ground floors exceeding 25 feet in height are counted as two stories.

f. Height limits do not apply to unfinished attics, masts, belfries, clock towers, chimney flues, water tanks, or elevator bulkheads.

g. Building stepbacks shall be required in T5 pursuant to the following dimensions (See Table 7):

I. *Facades* facing RG parcels shall maintain a 45° height plane beginning at 35 feet above the average grade at the property line.

TABLE 7. BUILDING HEIGHT



3.3 Building Specifications: Frontage Requirements

A. Lot lines abutting a right-of-way are designated a primary frontage or *secondary frontage* as follows:

   a. For lots abutting a right-of-way along a single lot line, the lot line abutting the right-of-way is designated the primary frontage.

   b. For lots abutting a right-of-way along multiple lot lines, the lot line relating to the address of the principal building is designated the primary frontage. All remaining lot lines are designed *secondary frontages*.

B. Regulations pertaining to primary *frontages* and *secondary frontages*, collectively frontage requirements, apply to the area of the lot within the front setback and secondary front setback including the following:

   a. Building *facades*.

   b. Structures that project from the *facade* such as porches, *terraces*, *stoops*, awnings, canopies, and bay windows.

   c. Landscape elements between the building *facade* and the lot line.

C. Where building *facades* do not occupy the entire frontage length in T5, a *streetscreen* is required as follows:

   a. *Streetscreens* shall be between 3 and 6 feet in height.

   b. Openings in the *streetscreen* for vehicular access may be no wider than 24 feet.

   c. *Streetscreens* may be made of the following materials: brick, stone, stucco over masonry, iron, steel or aluminum that appears to be iron. Non-opaque *streetscreens* require planting behind to increase opacity.

D. *Frontages* are divided into the following types: porch, *stoop*, *terrace*, common entry,

forecourt, and *shopfront*.

E. Property owners shall designate which frontage type corresponds to the building(s) they own or are proposing to build and shall comply with the standards for that type when new construction or substantial rehabilitation is proposed.

   a. Frontage types are limited by transect zone according to Table 8.

   b. A *shopfront* frontage is required for all ground floor retail uses. *Shopfronts* may be combined with *terraces* and *forecourts*.

F. Where buildings have multiple *frontages* or multiple buildings are located on one lot, similar frontage types should be selected for all *frontages*.

G. Loading docks and service areas up to a combined width of 30 feet may be incorporated into *frontages* as follows:

   a. At *secondary frontages* located towards the rear of the lot.

   b. At primary *frontages* where lots have no *secondary frontage* and lot width exceeds 100 feet.

H. Roof overhangs, cornices, window and door surrounds and other *facade* decorations may *encroach* into the front setback up to 2 feet beyond the structure they are attached to but not beyond the lot line.

I. Other structural *encroachments* shall be pursuant to Table 4 and Table 5.

J. *Encroachments* into the front setback are prohibited except where specifically permitted in this Section or Table 4 and Table 5.

TABLE 8. PRIVATE FRONTAGES

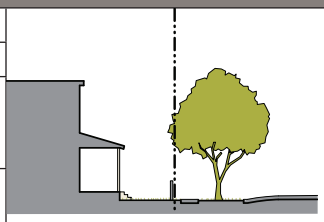
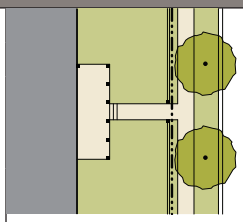
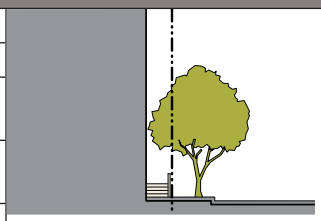
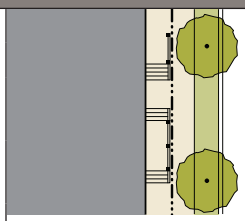
FRONT SETBACK REGULATIONS		SECTION		PLAN	
		PRIVATE FRONTAGE	PUBLIC FRONTAGE	PRIVATE FRONTAGE	PUBLIC FRONTAGE
PORCH					
Transect district	T4				
Required elements	Porch; hedges, fences, or walls				
Porch requirements	Shall occupy a minimum of 60% of the width of the building facade. 6 feet deep minimum.				
Porch *encroachments* into setback	50% of setback				
Surface Treatment	Grass, groundcover				
Special requirements	Fences, hedges and walls shall be along *frontage line*s or parallel with the *facade* of the principal building. The first floor shall have a minimum elevation of 18 inches above average grade along the front lot line and a maximum elevation of 36 inches.				
STOOP					
Transect district	T4, T5				
Permitted elements	Hedges and metal fences				
Encroachments into setback	80% of setback				
Surface Treatment	Paved in coordination with the public frontage or with pervious materials				
Special requirements	May be recessed into the building *facade* where a front setback is less than 10 feet. The first floor shall have a minimum elevation of 20 inches above average grade along the front lot line and a maximum of 36 inches. *Stoops* shall have a landing between 4 and 6 feet deep. Stairs providing access to a *stoop* may *encroach* up to the lot line.				

TABLE 8. PRIVATE FRONTAGES

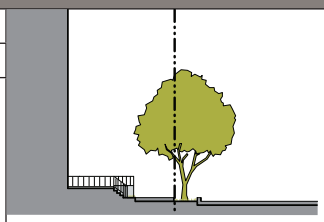
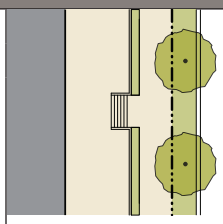
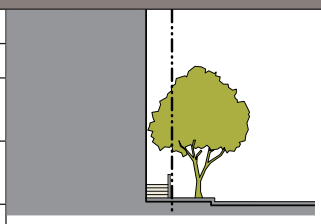
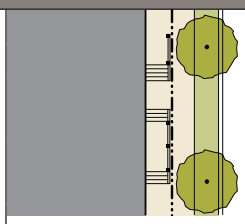
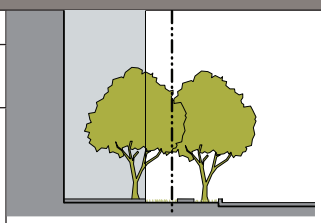
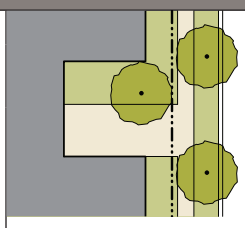
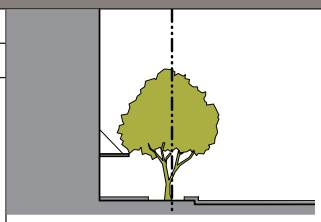
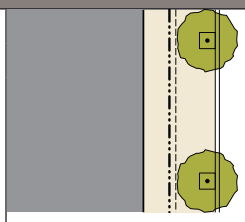
FRONT SETBACK REGULATIONS		SECTION		PLAN	
		PRIVATE FRONTAGE	PUBLIC FRONTAGE	PRIVATE FRONTAGE	PUBLIC FRONTAGE
TERRACE					
Transect district	T4, T5				
Permitted elements	May be combined with *stoop*				
Awnings	Shall be fabric and may be fixed or movable. Plastic is prohibited. Shall extend from the *facade* a minimum of 6 feet and may not extend beyond the *terrace*. 8 foot minimum clearance shall be maintained above the *terrace*.				
Encroachments into setback	*Terraces* may *encroach* 100% of setback, no less than 6 ft.				
Surface Treatment	Paved or landscaped				
Special requirements	Ramps for wheelchair access may be located within front setback. *Terraces* shall have a minimum elevation of 12 inches above average grade along the front lot line and a maximum elevation of 24 inches. *Terrace frontages* may include all elements of a *shopfront* frontage located at the level of the *terrace*.				
COMMON ENTRY					
Transect district	T4, T5				
Permitted elements	Planter may line the facade				
Encroachments into setback	Planter may *encroach* to within 5 feet of the lot line				
Surface Treatment	Any setback area not within the planter shall be paved at grade.				
Special requirements	Planter may extend no more than 3' from the *facade* at grade. The first *story* of the *facade* shall be no less than 15% glazed in clear glass.				
FORECOURT					
Transect district	T5				
Permitted elements	May be combined with *terrace*, *stoop*, or *shopfront*.				
Encroachments into setback	May recess from the *frontage line* a maximum of 20 feet for pedestrian entries or a maximum of 30 feet for vehicular access.				
Surface Treatment	Paved in coordination with the public frontage or with pervious materials.				
Special requirements	Shall provide access to the main building entrance. Driveways within *forecourts* shall not exceed 20 ft. in width. Portions of the driveway in the public *frontage* shall not exceed 12 ft. in width and shall be paved in coordination with the adjacent public *frontage*.				

TABLE 8. PRIVATE FRONTAGES

FRONT SETBACK REGULATIONS		SECTION		PLAN	
		PRIVATE FRONTAGE	PUBLIC FRONTAGE	PRIVATE FRONTAGE	PUBLIC FRONTAGE
SHOPFRONT					
Transect district	T4, T5				
Permitted elements	Awnings				
Awnings	Shall be fabric and may be fixed or movable. Plastic is prohibited Awnings shall extend from the *facade* a minimum of 4 feet from the building, and shall be set back from the curb a minimum of 5 feet. 8 foot minimum clearance shall be maintained above the *terrace*.				
Encroachments into setback	Awnings may *encroach* to within two feet of the curb. Display windows may *encroach* up to 5 feet.				
Surface Treatment	Paved.				
Special requirements	Shall be glazed with clear glass for no less than 60% of the ground floor at *frontages*, calculated as a percentage of each *facade* individually.				

3.4 Fencing Standards

A. Hedges in *frontage* fences shall be evergreen.

B. Wood *frontage* fences shall be painted or stained.

C. No single *frontage* fence horizontal panel shall exceed 42 inches in height along a *frontage* lot line. See Sec. Table 11. Fence Panels.

D. Private lot line fences shall be between 60 and 72 inches in height. See Sec. Table 10. Fence Locations.

E. *Frontage* fences may occur at the lot line, or up to 18” behind the lot line to permit landscaping.

F. When erected on a lot line, all of the fence and any of its supporting structures shall be contained within the lot.

G. The supporting members and posts shall be on the inside, and the smooth or flat faces on the outside. If two faces are used, each face shall be of the same type and finish. Board on board fences is considered equal treatment.

H. Barbed wire, razor wire and electrically charged fences are not permitted.

TABLE 9. FENCE TYPES

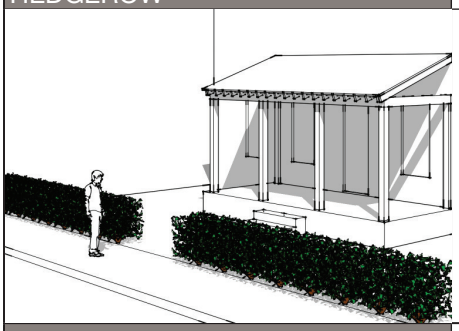
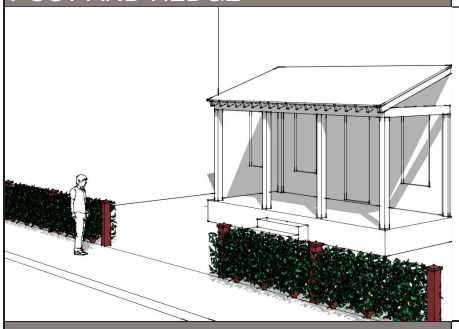
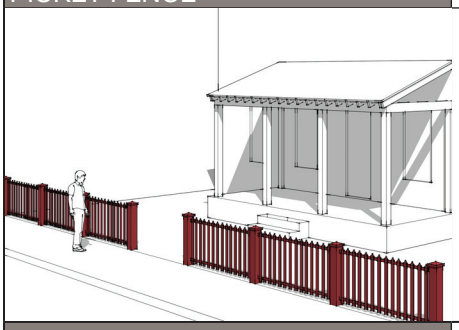
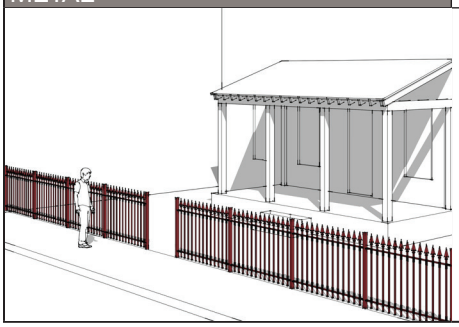
	T4	T5	SPECIFICATIONS	
HEDGEROW	P		a. Plant type	evergreen
			b. Setback	0” or 18” for landscape
POST AND HEDGE	P		a. Plant type	evergreen
			b. Setback	0” or 18” for landscape
PICKET FENCE	P		a. Picket spacing	≤ 2.5 times width of picket
			b. Setback	0” or 18” for landscape
METAL	P	P	a. Material	aluminum or wrought iron
			b. Finish	powder coat or paint
			c. Picket spacing	≤ 2.5 times width of picket
			d. Setback	0” or 18” for landscape

TABLE 9. FENCE TYPES

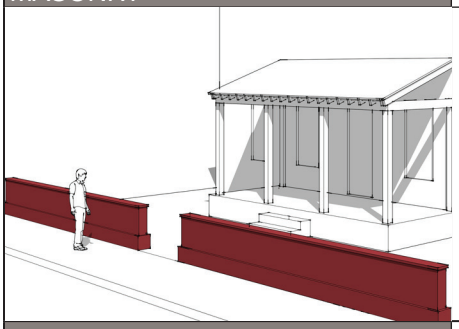
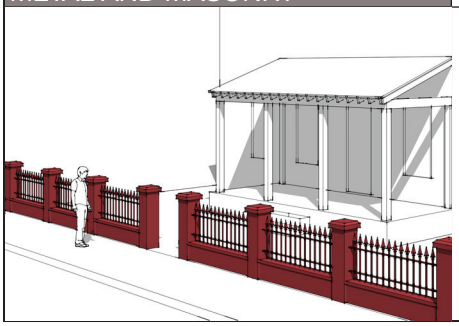
	T4	T5	SPECIFICATIONS	
MASONRY	P	P	a. Material	stone, brick or stucco
			b. Setback	0” or 18” for landscape
METAL AND MASONRY		P	a. Material	stone, brick or stucco with metal panels
			b. Setback	0” or 18” for landscape

TABLE 10. FENCE LOCATIONS

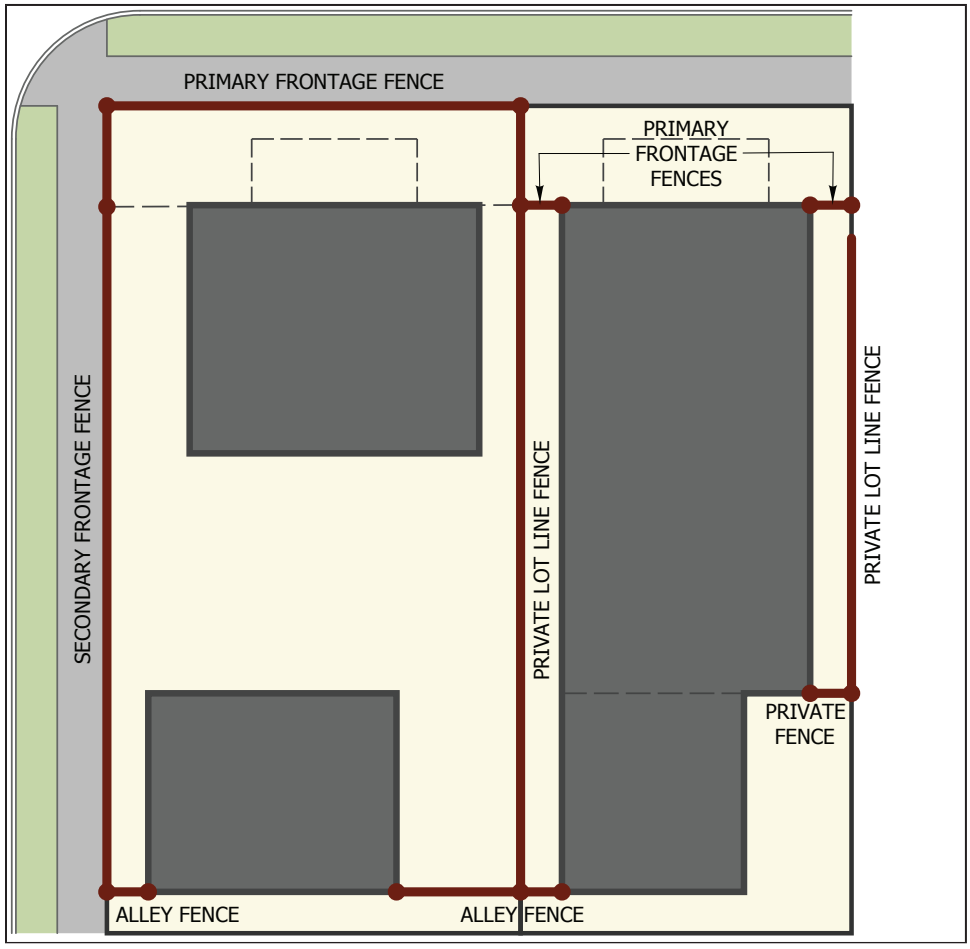
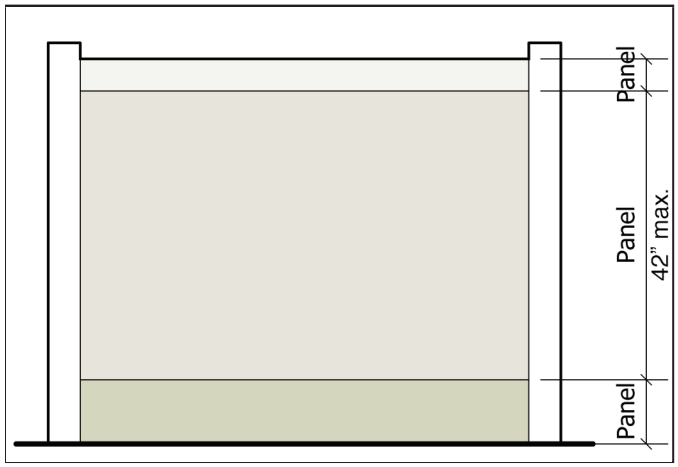


TABLE 11. FENCE PANELS



3.5 Signage Standards

The general intent of regulating signs that are visible from the public *frontage* is to ensure proper dimensioning and placement with respect to existing or planned architectural features, to maintain or improve public safety, to maintain or improve the aesthetic character of the context in which they are located (see Sec. Table 12. Sign Types). Signage provides legible information for pedestrians as well as drivers.

Except with respect to the additional provisions in Paragraphs A. – J. below, Chapter 82 (Sign Ordinance) of Title XII – Zoning shall be applicable and govern pursuant to the administration, processes and provisions for all signage within the City Limits of the City of Marquette, Michigan. However, only the signage types permitted in this subsection and Sec. Table 12. Sign Types hereof shall be permitted in the Third Street Corridor. Unless specifically defined in Sec. 1.9 Definitions., all definitions used in this Chapter shall be as defined in Chapter 82 – Sign Ordinance of Title XII – Zoning.

A. Specific to Address Signs:

   a. Address sign numerals applied to retail, office, residential, institutional, or industrial buildings shall be between three (3) and six (6) inches tall. Address sign numerals applied to individual dwelling units in apartment buildings shall be at least three (3) inches tall.

   b. Address signs shall be easily visible by using colors or materials that contrast with their background.

   c. Address signs shall be constructed of durable materials.

   d. The address signs shall be attached to the front of a building in proximity to the *principal entrance* or at a mailbox.

B. Specific to Awning Signs:

   a. The following variations of awning, with or without sign bands, are permitted:

      I. Fixed or retractable awnings.

II. Shed awnings.

b. No portion of an awning shall be lower than eight (8) feet clearance.

c. Awnings shall be a minimum of four (4) feet in depth and shall be set back from the curb a minimum of two (2) feet.

d. Awnings shall not extend beyond the width of the building or tenant space, nor *encroach* above the roof line or the *story* above.

e. The height of the valance shall not exceed six (6) inches.

f. Letters, numbers, and graphics shall cover no more than fifty (50) percent of the awning panel or valance areas.

g. Awning signs shall not be internally illuminated or back-lit.

C. Specific to *Band Signs*:

a. *Band signs* shall be subject to the Wall Sign standards of Chapter 82.

b. All businesses are permitted one (1) band sign on each first *story* facade.

c. All *band signs* shall include only letters, background, lighting, and an optional logo.

d. The following *band sign* construction types are permitted:

I. Cut-out letters shall be individually attached to the wall or on a separate background panel, and shall be externally illuminated.

II. Flat panel letters shall be printed or etched on same surface as the background, which is then affixed to the wall and externally illuminated.

III. Each channel letter shall have its own internal lighting element, individually attached to the wall or onto a separate background panel. The letter shall be translucent, or solid to create a back-lit halo effect.

e. Height and width shall be measured using smallest rectangle that fully encompasses the entire extent of letters, logo and background.

f. *Band signs* shall not be wider than 90% of the width of the building *facade* or tenant space.

g. *Band signs* may be illuminated from dusk to dawn. External lights shall be shielded from direct view to reduce glare.

h. Electronic raceways, conduits and wiring shall not be exposed. Internal lighting elements shall be contained completely within the sign assembly or inside the wall.

i. Where multiple *band signs* are present on a single building, signage shall be

coordinated in terms of scale, placement, colors and materials.

D. Specific to *Blade Signs*:

a. *Blade signs* shall be subject to the Projecting Sign standards of Chapter 82.

b. *Blade signs* may be double-sided.

c. *Blade signs* shall be permitted only for businesses that have a *principal entrance* on the first *story*.

d. Businesses shall be permitted one (1) *blade sign* where its *principal frontage line* is no more than five (5) feet from the facade. Businesses that have a *secondary frontage line* that is more than two (2) feet from the *facade* shall be permitted one (1) additional *blade sign* on that facade.

e. *Blade signs* may *encroach* into the public *frontage* up to four (4) feet and shall clear the sidewalk by at least eight (8) feet.

I. Blade signs may exceed the size permitted pursuant to Table 12 if the sign includes a three dimensional sculptural element.

f. *Blade signs* shall not *encroach* above the roof line nor above the bottom of the second *story* window.

g. Mounting hardware, such as supports and brackets, and shall complement the design of the sign, the building, or both.

h. For buildings with multiple signs, mounting hardware or sign shapes, sizes and colors shall be coordinated.

E. Specific to Marquee Signs:

a. Marquee signs shall be subject to the Canopy and Marquee standards of Chapter 82.

b. Marquees shall be located only above the *principal entrance* of a building.

c. No marquee shall be wider than the entrance it serves, plus two (2) feet on each side thereof.

d. Marquee components and materials should be limited to the sign's interior.

e. Electronic message boards shall be permitted as part of marquees.

f. A band sign shall be permitted above a marquee.

F. Specific to *Nameplate Signs*:

a. *Nameplates* shall consist of either a panel or individual letters applied to a building wall within ten (10) feet of an entrance to the building.

b. One *nameplate* shall be permitted per address.

c. *Nameplates* shall not exceed three (3) square feet.

d. *Nameplates* shall be constructed of durable materials.

G. Specific to *Outdoor Display Cases*:

a. Each *outdoor display case* shall not exceed six (6) square feet.

b. *Outdoor display cases* may be externally or internally illuminated.

c. Theaters may be permitted outdoor display cases up to twelve (12) square feet.

H. Specific to Window Signs:

a. Only the following window sign types shall be permitted:

I. Vinyl appliqué letters applied to the window. Appliqués shall consist of individual letters or graphics with no visible background.

II. Letters painted directly on the window.

III. Hanging signs that hang from the ceiling behind the window.

IV. Door signs applied to or hanging inside the glass portion of an entrance doorway.

b. Window signs shall not interfere with the primary use of windows, which is to enable passerby and public safety personnel to see through windows into premises and view product displays.

c. Window signs shall be no larger than 20% of the total area of the window onto which they are applied. Sign area shall be measured using smallest rectangle that fully encompasses the entire extent of letters, logo and background.

d. Window signs may list services and/or products sold on the premises, or provide phone numbers, operating hours or the messages, provided that the total aggregate areas of these messages not exceed the limit provided above.

e. Letters on window signs shall be no taller than eight (8) inches.

I. Specific to Yard Signs:

a. One single or double-post yard sign for each business may be permitted by Administrative Waiver, provided the setback is at least six (6) feet from the primary *frontage line*, does not exceed six (6) square feet excluding posts, and does not exceed six (6) feet high, including posts, measured from the yard at the post location.

J. Specific to Temporary Signs and Banners:

a. Temporary signs of all types may be approved by Administrative Waiver for a 30-day period only. The Planning Director shall make the following written finding:

I. The temporary sign is consistent with Sec. 1.1 Intent.

II. The temporary sign is will not materially endanger the public health or safety or constitute a public nuisance if located where proposed and developed according to the plans and information submitted and approved.

III. The temporary sign will not substantially injure the value of adjoining property, or that the use is a public necessity.

TABLE 12. SIGN TYPES

	T4	T5	SPECIFICATIONS	
ADDRESS SIGN	P	P	a. Quantity (max)	1 per address
			b. Area	max 2 sf
			c. Width	max 24 in
			d. Height	max 12 in
			e. Depth / Projection	max 3 in
			f. Clearance	min 4.5 ft
			g. Apex	n/a
			h. Letter Height	max 5 ft.
AWNING AND SIGN	P	P	a. Quantity (max)	1 per window
			b. Area	n/a
			c. Width	max equals width of Facade
			d. Height	n/a
			e. Depth / Projection	min 4 ft, see § 9-9025 b.
			f. Clearance	min 8 ft.
			g. Apex	n/a
			h. Letter Height	6 in. max.
			i. Valance Height	max 8 in
			j. Distance from Curb	min. 5 ft.
			Note: may be used with Shingle Sign	
BAND SIGN	P	P	a. Quantity (max)	1 (2 for corner buildings)
			b. Area (max)	1 sf per linear ft Facade
			c. Width	max 90% width of Facade
			d. Height	max 18 in
			e. Depth / Projection	max 7 in
			f. Clearance	min 7 ft
			g. Apex	n/a
			h. Letter Height	max 8 in
BLADE SIGN	P	P	a. Quantity	1 per Facade per Business, 2 max
			b. Area (max) First Floor	4 sf T4; 6 sf T5
			Second Floor	1.04 sf
			c. Width	max 4 ft
			d. Height	max 4 ft
			e. Depth / Projection	max 4 ft
			f. Clearance	min 10 ft
			g. Apex	n/a
			h. Letter Height	max 6 in

TABLE 12. SIGN TYPES

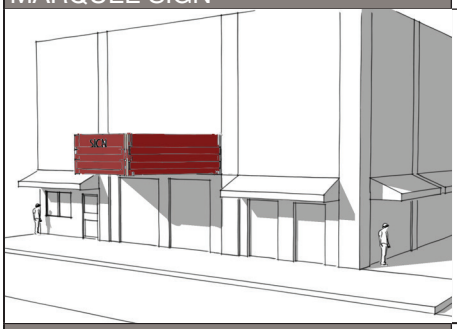
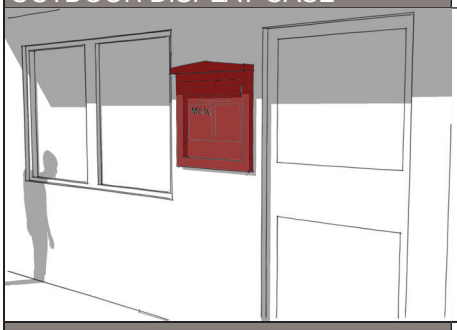
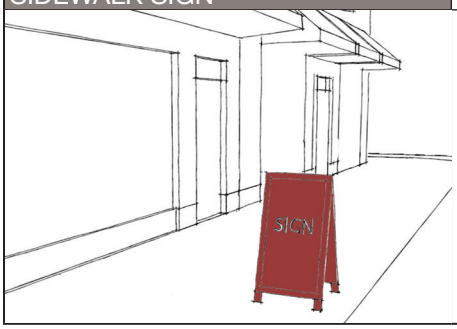
	T4	T5	SPECIFICATIONS	
MARQUEE SIGN 	P	P	a. Quantity (max)	1 per principal entry
			b. Area	n/a
			c. Width (max)	entrance plus 2' each side
			d. Height	max 50% *Story* height
			e. Depth / Projection	min 4 ft, max 10 ft
			f. Clearance	min 10 ft
			g. Apex	n/a
			h. Letter Height	n/a
			i. Distance from Curb	min 5 ft.
NAMEPLATE SIGN 	P	P	a. Quantity (max)	1
			b. Area	max 6 sf
			c. Width (max)	max 3.5 ft
			d. Height	max 3.5 ft
			e. Depth / Projection	max 5 in
			f. Clearance	min 4 ft
			g. Apex	n/a
			h. Letter Height	n/a
OUTDOOR DISPLAY CASE 	P	P	a. Quantity (max)	1
			b. Area	max 6 sf
			c. Width (max)	max 3.5 ft
			d. Height	max 3.5 ft
			e. Depth / Projection	max 5 in
			f. Clearance	min 4 ft
			g. Apex	n/a
			h. Letter Height	n/a
SIDEWALK SIGN 	P	P	a. Quantity (max)	1 per business
			b. Area	max 8 sf
			c. Width (max)	max 26 in
			d. Height	max 42 in
			e. Depth / Projection	n/a
			f. Clearance	n/a
			g. Apex	max 42 in
			h. Letter Height	n/a
			i. Materials	Plastic prohibited

TABLE 12. SIGN TYPES

	T4	T5	SPECIFICATIONS	
WINDOW SIGN	P	P	a. Quantity (max)	1 per window
			b. Area	max 25% of glass
			c. Width (max)	varies
			d. Height	varies
			e. Depth / Projection	n/a
			f. Clearance	4 ft
			g. Apex	n/a
			h. Letter Height	max 8 in

3.6 Architectural Standards

This section does not apply to single-family and two-family edgeyard and sideyard residential unit building types.

A. *Facade* Standards:

a. Glazing above the first *story* shall not exceed 30% of the total building *facade* wall area, with each *facade* being calculated independently.

b. The *shopfront private frontage* shall be no less than 70% glazing.

c. All glass shall be clear and free of color.

d. Low pitch or flat roofs shall be enclosed by a parapet that as high as necessary to conceal mechanical equipment.

e. Exterior building materials shall be masonry, concrete, tile, stone, and wood, unless otherwise designated by the individual building form standards; glass curtain walls and reflective glass are prohibited due to the undesirable blinding effect compounded by snow.

3.7 Use

Buildings, as the primary element of town planning, are subject to variations in use, placement and configuration.

A. Conditional uses shall be administered by the Planning Commission in accordance with Section 80.65 of the City of Marquette Zoning Ordinance. Conditional use permits shall be granted if the following conditions are met:

a. The use will not materially endanger the public health or safety or constitute a public nuisance if located where proposed and developed according to the plans and information submitted and approved.

b. The use will not substantially injure the value of adjoining property; or that the use in a public necessity.

c. The location and character, if developed according to the plans and information

approved, will be in harmony with the proximate land uses, and consistent with the purposes of the district.

B. Uses permitted By Right

See Table 13.

C. Conditional Uses:

a. Group Day Care Home

b. Foster Family Group Home

c. Halfway House

D. Uses Subject to Appeal:

a. Home Occupations or Home Offices

I. Shall not occupy more than 25% of the floor area of the dwelling unit or a maximum of 500 square feet, whichever is smaller.

II. No persons who are not lawful residents of the dwelling unit may be employed.

III. There shall be no signs or display of goods used to indicate the presence of the Home Occupation.

IV. Persons other than residents of the dwelling unit shall not visit the Home Occupation for business purposes.

V. Approval of a Home Occupation shall vest only in the person making the application and is non-transferable to another person.

VI. Shall require approval from the Marquette City Community Development and Fire Departments.

E. General to all subdistricts:

a. All buildings in each transect district shall conform to the uses and types on Sec. Table 13. Use.

TABLE 13. USE

USE	T4	T5	USE	T4	T5
A. RESIDENTIAL			**F. AUTOMOTIVE**		
Mixed use building	P	P	Gasoline	P	P
Multi-family dwelling	P	P	Service	P	P
Live-work unit	P	P	Sales	P	P
Two-family dwelling	P	P	Truck maintenance		
Townhouse	P	P	Drive-through facility	P	P
Single-family dwelling	P	P	**G. CIVIL SUPPORT**		
Group day care home	C	C	Funeral home	P	P
Foster family home	C	C	Hospital		C
Halfway house	C	C	Medical clinic	P	P
B. LODGING			Animal hospital	P	P
Hotel	C	P	Kennel	C	C
Inn (up to 12 rooms)	P	P	**H. EDUCATION**		
Bed & Breakfast (up to 6 rooms)	P	P	High school	C	C
C. OFFICE			Elementary school	P	P
Office building	P	P	Childcare center	P	P
Mixed use building	P	P	**I. INDUSTRIAL**		
Live-work unit	P	P	Heavy industrial facility		
D. RETAIL			Light industrial facility	C	C
Open market building	P	P	Laboratory facility	C	C
Mixed use building	P	P	Warehouse	C	C
Retail building	P	P	Mini-storage		C
Gallery	P	P			
Restaurant	P	P			
Kiosk	P	P			
Push cart	P	P			
E. INSTITUTIONAL					
Conference center		P			
Live theater	C	P			
Movie theater	C	P			
Museum	P	P	Permitted use	P	
Religious assembly	P	P	Conditional use	C	

3.8 Parking Location and Access

A. Parking shall not be located within 25 feet of the primary *frontage*.

B. Required parking may be fulfilled in the following locations:

a. Parking spaces provided within the lot.

b. Parking spaces provided along a parking lane (on-street) corresponding to lot *frontages*.

c. Parking spaces may be leased from a private or public parking facility within 500 feet

of the lot.

C. Off-street parking shall be accessed by alleys where available.

D. Where alleys are not available, off-street parking may be accessed from the following locations:

a. From *secondary frontages*; driveways should be located near the rear lot line.

b. Where *secondary frontages* are not available, parking may be accessed from the primary *frontage* in T4 for lots with a minimum width of 45 feet, in T5 for lots with a minimum width of 60 feet.

E. Driveways providing access to off-street parking are limited to 10 feet in width in T4 and 24 feet in T5.

3.9 Off-street Parking Design

A. Off-street parking for single-family residential uses are not subject to the design requirements of this section.

B. All off-street parking spaces and aisles shall meet AASHTO size and configuration standards.

C. Off-street parking facilities shall have a minimum vertical clearance of 7 feet. Where such a facility is to be used by trucks or for loading, the minimum clearance is 15 feet.

D. Parking lots and structures visible from *frontages* require one of the following screening methods or a combination of methods:

a. *Liner buildings*, optional at parking lots and required at parking structures. A minimum of 70% of parking structure width shall be screened ground floor *frontages*.

b. A masonry wall no less than 4 feet in height.

c. A metal fence with an evergreen hedge or other landscape element to screen the view of parking.

TABLE 14. PARKING REQUIREMENTS

	T4	T5
Residential *	1.125 / dwelling	1.0 / dwelling
Lodging	1.0 / bedroom	1.0 / bedroom
Office	no minimum	no minimum
Retail	no minimum	no minimum
Civic	1.0 / 5 seat assembly use 1.0 / 1,000 s.f. of exhibition or indoor recreation area. Parking requirement may be reduced pursuant to Table 16. Parking may be provided by ownership or lease offsite within 1,000 feet.	1.0 / 5 seat assembly use 1.0 / 1,000 s.f. of exhibition or indoor recreation area. Parking requirement may be reduced pursuant to Table 16. Parking may be provided by ownership or lease offsite within 1,000 feet.
* Senior housing or student housing requirements may be reduced by 50%.		

TABLE 15. PARKING OCCUPANCY RATES

USES	M – F	M – F	M – F	SAT & SUN	SAT & SUN	SAT & SUN
	8AM – 6PM	6PM – 12AM	12AM – 8AM	8AM – 6PM	6PM – 12AM	12AM – 8AM
RESIDENTIAL	60%	100%	100%	80%	100%	100%
LODGIING	70%	100%	100%	70%	100%	100%
OFFICE	100%	20%	5%	5%	5%	5%
RETAIL	90%	80%	5%	100%	70%	5%
RESTAURANT	70%	100%	100%	70%	100%	100%
MOVIE THEATER	40%	80%	10%	80%	100%	10%
ENTERTAINMENT	40%	100%	10%	80%	100%	50%
CONFERENCE	100%	100%	5%	100%	100%	5%
CIVIC (NON-CHURCH)	100%	20%	5%	10%	10%	5%
CIVIC (CHURCH)	20%	20%	5%	100%	50%	5%
Planning Staff shall provide a spreadsheet that will perform calculations for specific applications based upon the above occupancy rates.						

3.10 Bicycle Parking

A. Intent

Short and long-term bicycle parking facilities shall:

a. Maximize visibility and minimize opportunities for vandalism by being located in locations within clear view of pedestrian traffic, windows, doors, and/or well-lit areas

b. Deter theft and provide for convenient parking ingress and egress by supporting the bicycle frame in at least two places.

c. Protect bicycles from inclement weather to the extent possible, as long as the facilities meet or exceed visibility, spacing, and performance standards.

d. Secure bicycles at a safe distance away from automobiles parked on-street, in lots, or in structures so that bicycles will not be damaged by opening doors or errant driving behavior.

e. Not obstruct pedestrian movement in any way.

f. Place the rack(s) between the primary road/path used by bicyclists and the entrance to the destination(s) they serve. See Table 19 for bicycle parking proximity guidelines.

g. Not obstruct stairs, walls, berms, or handicap accessible ramps.

h. Provide enough space for bicycles of all types to maximize the intended bicycle parking capacity of a given facility.

3.11 Landscape Standards

A. Intent

A transect-based landscape plan provides many aesthetic, ecological, functional and health/safety benefits. The standards of this section promote public health, safety and

welfare by establishing minimum standards for the design, construction and maintenance of landscape improvements for public *frontages* and *private frontages*, lots, *civic spaces*, and thoroughfares.

a. Aesthetics/Walkability. These standards should enhance the overall aesthetic condition of communities, neighborhoods and the public realm with landscaping by:

I. providing spatial definition to the public realm

II. providing screening of unsightly places and/or mitigation of conditions that are incongruent with Sec. 1.1 Intent of this Chapter.

b. Health/Safety. These standards should enhance comfort, safety and utilization of the public realm by moderating the local microclimate through the application of trees and landscaping to:

I. improve air quality

II. mitigate noise pollution

III. provide seasonal shade, sun and temperature regulation

IV. reduce reflected light

V. mitigate wind gusts

VI. provide a partial barrier between sidewalks and vehicular lanes

VII. provide areas for the convenient removal and storage of snow

B. General to all sub-districts

a. Landscape Design Standards

I. The spacing and placement of plants shall be adequate and appropriate for the typical size, shape and habit of the plant species at maturity.

II. Proposed trees and understory trees shall be centered horizontally and minimally:

i. Two (2) feet from walkways, curbing, and other impervious pavements when planted in a tree well or continuous planter;

ii. Three (3) feet from walkways, curbing and other impervious pavements when planted in a continuous swale;

iii. Five (5) feet from street lights, underground utilities, utility meters and service lines, fences, walls and other ground level obstructions;

iv. Six (6) feet from porch eaves, and awnings and similar overhead obstructions associated with the ground level of buildings;

v. Eight (8) feet from balconies, verandas, building eaves and cornices, and similar overhead obstructions associated with the upper stories of buildings.

III. Proposed trees shall be a minimum height of ten (10) feet and / or three (3) inches in caliper.

IV. Proposed understory trees shall be a minimum of eight (8) feet in height and/ or two-and-one-half (2-1/2) inches in caliper.

V. Proposed Shrubs shall be of a five (5) gallon container minimum. Shrubs shall be 18" – 24" minimum clear from any sidewalk or pavement edge at the Lot line.

VI. Ground vegetation or Shrub plantings with spines, thorns or needles that may present hazards to pedestrians, bicyclists or vehicles are prohibited in the first two (2) feet of the front setback.

VII. Bare and exposed ground on the site and / or in *landscaped areas* shall be covered with live plant materials and/or mulch, with the following exceptions:

VIII. Artificial plants or artificial turf are prohibited.

b. Buffers and screening elements shall be used to screen parking areas from public view, to screen service yards and other places that are unsightly.

C. Landscape Construction Standards

a. All plant materials shall meet with the minimum container size, class and other requirements outlined in American Standard for Nursery Stock (ANSI Z60.1-2004) published by the American Nursery and Landscape Association (ANLA) or other local Nursery Association Standards.

b. The soil structure of planting strips shall be protected from compaction with a temporary construction fence. Standards of access, excavation, movement, storage and backfilling of soils in relation to the construction and maintenance of deep utilities and manholes shall be specified.

c. The topsoil within the construction area's limits of disturbance shall be removed, stored and amended as recommended by a landscape soils test.

d. Wind erosion shall be mitigated and controlled though dust abatement and similar practices during the period of site work and construction.

e. Landscape soils that have been compacted during construction activities shall be loosened and aerated to a depth of at least six (6) inches before planting.

f. Plants shall have normal, well-developed branches and vigorous root systems.

g. Temporary spray irrigation systems may be used to establish seeded areas for grass and groundcover.

D. Landscape Maintenance

a. All grass and vegetation shall be lightly fertilized to avoid fertilizer pollution to groundwater, streams and ponds.

b. No disturbed ground shall be left exposed. Turfgrass and other approved and ap-

propriate groundcovers or mulch shall cover all non-paved and non-built developed areas.

c. It shall be the responsibility of the property owner(s) or his assigned agent(s) to:

I. Maintain and keep all screening and fencing in good condition at all times; and

II. Maintain landscaping by keeping Turfgrass lawns properly mowed and edged, plants properly pruned and disease-free, and planting beds mulched, groomed and weeded, except in areas of naturally occurring vegetation and undergrowth; and

III. Replace any required planting(s) which are significantly damaged, removed, infested, disease ridden, or dead within one year or the next planting season, whichever occurs first, except in areas of naturally occurring vegetation and undergrowth.

E. Specific to subdistrict T4

a. The minimum required landscape area shall be twenty (20) percent of the front setback.

b. Preservation of on-site existing trees and vegetation is encouraged and may be used to fulfill the landscape requirements.

I. The root zones of existing trees and vegetation to be preserved shall be protected from clearing or construction activities.

II. The size and limits of existing vegetation shall be indicated on the landscape plan.

c. The applicant may remove mature, healthy, non-invasive trees only within areas of a lot that are inside the proposed footprint of the primary structure.

d. The applicant shall replace mature trees that are removed on the site with trees of the same or similar species whose combined caliper dimensions equal that of the tree removed.

I. During construction, the root zone of existing vegetation to be preserved shall be enclosed by a temporary protective fence.

e. All landscape areas compacted during construction activities shall be retiled and reconditioned to provide an arable topsoil layer that can support the long term health and vitality of landscaping.

f. The topsoil within the construction area's limits of disturbance shall be removed, stored and amended with organic soil additives as recommended by a landscape soils test prior to being redistributed.

F. Specific to subdistrict T5

a. Landscape islands in interior parking lots shall only occur at the end of drive aisles. Islands should be the minimum size for healthy growth for the specific species of

tree.

b. Porous paving materials should be used in order to increase storm water infiltration on site.

G. Specific to neighborhood edges

a. A landscape buffer located along common property lines shall be required between Third Street Corridor District properties and the residential properties adjacent. The landscape buffer shall be a minimum of five feet wide.

I. Minimum of three (3) trees shall be planted within the side and rear setbacks for every 500 square feet of landscape buffer.

II. Shrubs shall be five (5) gallon container and twenty-four (24) inches height minimum, and of a type that, at maturity, will provide a continuous opaque screen at least thirty-six (36) inches in height.

III. Trees shall be four (4) inches caliper minimum, or in the case of evergreen trees, twelve (12) feet minimum height.

H. Public Space Trees

Any tree species and cultivar applicable for planting in USDA Cold Hardiness Zone 5a (-15 to -20°F average coldest winter temperature) can be considered for planting within district public *squares*, *plazas*, and private parcels, with the exception of the following prohibited species.

I. Prohibited Tree Species

a. All Willows (*Salix*)

b. All Poplars (*Populus*)

c. Silver Maple

3.12 Streetscape Standards

The primary use of thoroughfares is to provide access to private lots and public *civic spaces*. In accordance with the intent of this Chapter, thoroughfares shall be designed to support several modes of transportation: public transportation, motor vehicles, and non-motorized vehicles such as bicycles and pedestrians.

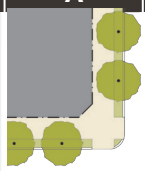
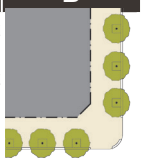
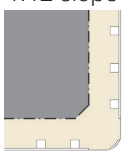
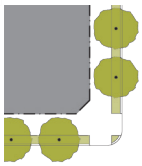
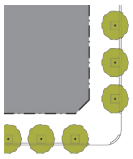
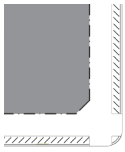
A. Alley easements include one (1) bi-directional vehicular lane, within a total width no more than twenty-four (24) feet pursuant to Sec. Table 20. Access. The entire right-of-way should be paved.

B. At the time of, and within, new or infill development:

a. Trees shall be planted at an average spacing of no greater than 40 feet within the front setback of the parcel being developed unless the front setback is less than 6 feet pursuant to Sec. Table 16. Public Frontage Type.

b. The developer is required to widen the sidewalk within the first 5 feet of the front setback pursuant to Sec. Table 16. Public Frontage Type.

TABLE 16. PUBLIC FRONTAGE TYPE

Public Frontage Type	A	B
i. Assembly: The principal variables are the type and dimension of curbs, walkways, planters and landscape.		
Total Width	10-20 feet	10-20 feet
ii. Curbing: The detailing of the edge of the vehicular way, incorporating drainage.		
Type Cuts	Raised Curb Ramp at 1:12 slope	Raised Curb Ramp at 1:12 slope
iii. Walkway: The portion of the thoroughfare dedicated exclusively to pedestrian activity		
Type Width	Sidewalk 6 - 15 feet	Sidewalk 6 - 16 feet
iv. Planter: The portion of the thoroughfare accommodating street trees and other landscape.		
Arrangement Type Planter Type Planter Width Public Planting Type	Opportu-nistic Similar Continuous 5 feet Columnar, Rounded	Opportu-nistic Similar Tree Well 4 feet Columnar, Rounded
v. Verge: Provides allowable locations for public infrastructure and public furniture outside of access ways		
Verge Width Verge Material	5 feet* match planter	5 feet* match sidewalk or pervious pavement

* Verge should begin within 2 feet of the curb or edge of pavement.

TABLE 17. BICYCLE PARKING CALCULATIONS

	T4	T5
This table prescribes minimum short-term bicycle parking calculations within each Transect Zone assigned to the Third Street Corridor. The calculations assume not just current but future possible bicycle mode share, not to exceed 5%. Requirements may be met within the Public *Frontage*, *Private Frontage*, building envelope, or a combination thereof. Bicycle parking provided within the Public *Frontage* must receive Administrative Approval.		
SHORT-TERM BICYCLE PARKING		
RESIDENTIAL Single-Family	No spaces required	n/a
Multi-Family w/ Private Garage Space for Each Unit	Minimum of 2 spaces	Minimum of 2 spaces + 0.05 spaces / bedroom
Multi-Family w/o Private Garage Space for Each Unit	Minimum of 2 spaces + 0.05 spaces / bedroom	Minimum of 2 spaces + 0.05 spaces / bedroom
LODGING	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area
OFFICE	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area	Minimum of 2. spaces + 1 additional space / 5,000 sq. ft. of floor area
RETAIL	Minimum of 2 spaces + 1 additional space / 5,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 2,500 sq. ft. of floor area
RESTAURANT	Minimum of 2 spaces + 1 additional space / 5,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 2,500 sq. ft. of floor area
ENTERTAINMENT	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 5,000 sq. ft. of floor area
CIVIC Non-assembly	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area
Assembly	Spaces for 2% of max. expected attendance	Spaces for 2% of maximum expected attendance
LONG-TERM BICYCLE PARKING		
RESIDENTIAL Single-Family	No spaces required	n/a
Multi-Family w/ Private Garage Space for Each Unit	No spaces required	Minimum of 2 spaces + 0.05 spaces / bedroom
Multi-Family w/o Private Garage Space for Each Unit	Minimum of 2 spaces + 0.5 spaces / bedroom	Minimum of 2 spaces + 0.05 spaces / bedroom
LODGING	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area	Minimum of 2 spaces + 1 additional space / 10,000 sq. ft. of floor area
OFFICE	Minimum of 2 spaces + 1 space / 10 employees	Minimum of 2 spaces + 1 space / 10 employees

TABLE 17. BICYCLE PARKING CALCULATIONS

	T4	T5
This table prescribes minimum short-term bicycle parking calculations within each Transect Zone assigned to the Third Street Corridor. The calculations assume not just current but future possible bicycle mode share, not to exceed 5%. Requirements may be met within the Public *Frontage*, *Private Frontage*, building envelope, or a combination thereof. Bicycle parking provided within the Public *Frontage* must receive Administrative Approval.		
LONG-TERM BICYCLE PARKING		
RETAIL	Minimum of 2 spaces + 1 space / 10 employees	Minimum of 2 spaces + 1 space / 10 employees
RESTAURANT	Minimum of 2 spaces + 1 space / 10 employees	Minimum of 2 spaces + 1 space / 10 employees
ENTERTAINMENT	Minimum of 2 spaces + 1 space / 10 employees	Minimum of 2 spaces + 1 space / 10 employees
CIVIC		
Non-assembly	Minimum of 2 spaces + 1 space / 10 employees	Minimum of 2 spaces + 1 space / 10 employees
Assembly	Minimum of 2 spaces + 1 space / 20 employees	Minimum of 2 spaces + 1 space / 20 employees

TABLE 18. BICYCLE PARKING TYPES

This table shows five common types of Bicycle Parking facilities appropriate for the Third Street Corridor and includes basic design/performance standards. Please reference the Association for Pedestrian and Bicycle Professionals Bicycle Parking Guide for more detailed design and placement guidance.

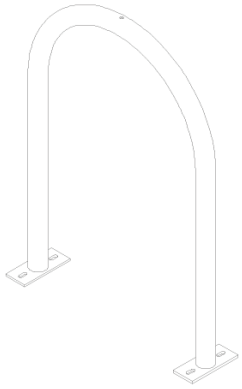
Parking Type	T4	T5	Standards
Bicycle Rack 	P	P	Bicycle Racks shall be capable of securing bicycles with at least two points of contact. Simple, easily identifiable forms, like the Inverted U-rack (shown at left) should be used. Racks may be placed in the *private frontage*, public *frontage* (including within an in-street *Bicycle Corral*), or within buildings where appropriate.

TABLE 18. BICYCLE PARKING TYPES

This table shows five common types of Bicycle Parking facilities appropriate for the Third Street Corridor and includes basic design/performance standards. Please reference the Association for Pedestrian and Bicycle Professionals Bicycle Parking Guide for more detailed design and placement guidance.

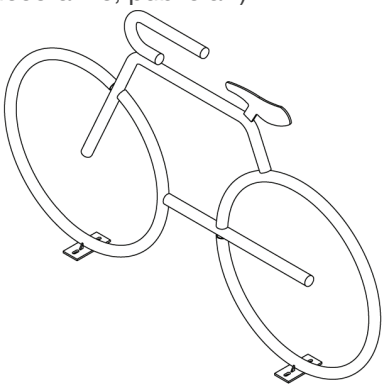
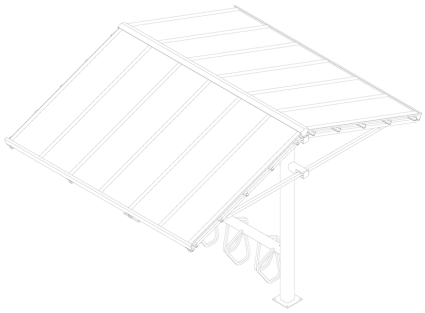
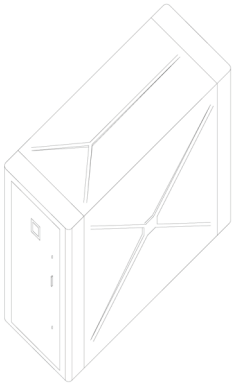
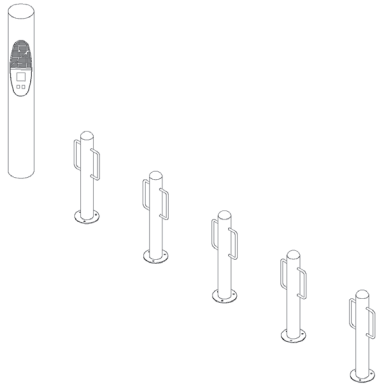
Parking Type	T4	T5	Standards
Bicycle Rack (decorative, public art) 	A	P	Decorative racks shall be recognizable as bicycle parking facilities and shall be held to the same performance standards as other bicycle racks. Such racks may be provided for and designed to enhance civic buildings, *civic spaces*, and other locations of historic, social, or cultural importance.
Bicycle Shelter 	A	P	*Bicycle Shelter*s shall be highly recognizable and integrated with transit, parks, trailheads, and/or land uses requiring medium or long-term bicycle parking needs. Each shelter shall include bicycle parking racks capable of securing bicycles with at least two points of contact, and may include other bicycling amenities, such as wayfinding maps/signs, air pumps, etc.
Bicycle Locker 	A	P	*Bicycle Locker*s shall be placed in highly visible and well-lit locations, but should not disrupt the function, safety and order of the public realm. They should be associated with land uses and transportation facilities where long-term parking is required.

TABLE 21. BICYCLE PARKING TYPES

This table shows five common types of Bicycle Parking facilities appropriate for the Third Street Corridor and includes basic design/performance standards. Please reference the Association for Pedestrian and Bicycle Professionals Bicycle Parking Guide for more detailed design and placement guidance.

Parking Type	T4	T5	Standards
Bicycle Sharing 	P	P	*Bicycle sharing* stations should be located in highly viable locations, adjacent to existing or proposed transit stops, employment centers, or popular destinations. Stations should be spaced every few *blocks* so that access remains convenient.

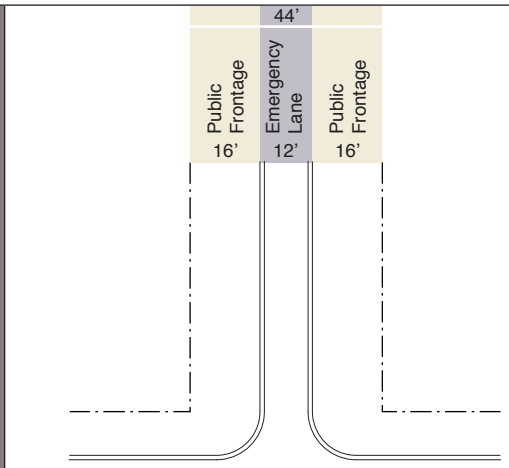
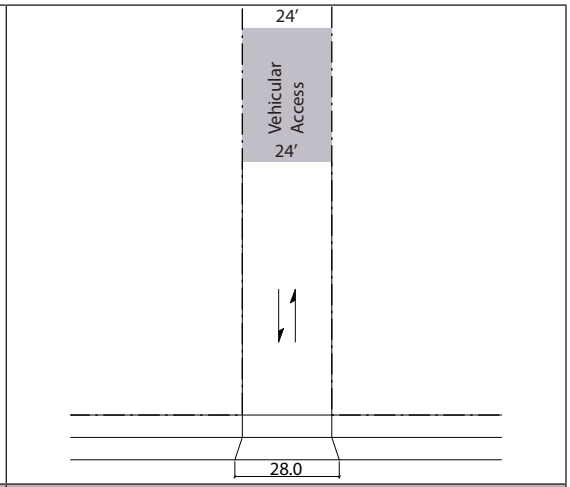
P – permitted
A – by administrative approval

TABLE 22. BICYCLE PARKING - GENERAL LOCATION GUIDELINES

This table prescribes the general relationship between the distance from the bicycle parking facility to the destination it serves, the parking duration, and the parking facility type provided.

Parking Duration												Bicycle Parking Facility
	24 hrs								24 hour/overnight			
	12 hrs											
	8 hrs				Day parking							Locker
	4 hrs											Shelter
	2 hrs	Short Term										*Bicycle Sharing* Station
	1 hr											
	30 min											
	10 min											Decorative Rack
	5 min											Rack
		15	30	50	75	100	125	150	200	250	300+	
		Distance from Bicycle Parking Facility to Destination (Feet).										
		Adapted from the Danish Cyclists Federation										

TABLE 23. ACCESS

KEY PP-44-12 Thoroughfare Type Right of Way Width Pavement Width THOROUGHFARE TYPES Alley: A Pedestrian Passage: PP		
ASSEMBLY	**PP-44-12**	**A-24-24**
Thoroughfare Type	Access	Access
Intensity District	T4, T5	T4, T5
Right-of-Way Width	24 ft.	24 ft.
Pavement Width	12 ft.	24 ft.


MARQUETTE HARBOR MASTER PLAN
City of Marquette, Michigan
Fall 2003

APPENDIX H HARBOR MASTER PLAN - 2003



Harbor Master Plan Area

Mayor's Task Force on Harbor Master Planning

Jerry Irby, Mayor

City of Marquette Liaisons:
Sandra Gayk, Director of Community Development
Hugh Leslie, Director of Parks and Recreation

Task Force Members:
Fred Stonehouse, Chair (Harbor Committee)
Gerald Messana, Secretary (Parks and Recreation Committee)
Jim Clark (Downtown Development Authority)
Steve White (Downtown Development Authority)
Geoff "Chip" Davis (Parks and Recreation Committee)
Joe Johnson (Community)
Wim McDonald (Community)
Ted Thill (Community)
Greg Sieple (Planning Commission)
Bruce Ventura (Planning Commission)

Introduction

To specifically address water-based uses and facilities in Marquette Bay, the City sought to create a Harbor Master Plan (HMP). The HMP is intended to supplement, and ultimately become part of the current City of Marquette Master Plan.

The HMP consists primarily of the areas commonly referred to as the Upper and Lower Harbor, extending from the south end of Presque Isle Park at the Presque Isle Marina, southward to the Shiras Generating Plant. In the Upper Harbor area, the plan focuses on the Presque Isle Marina, ore dock and remnant piles. In the Lower Harbor, the plan focuses on the commercial and public spaces near the remnant piles, ore dock and Cinder Pond Marina.

This summary document describes Marquette's setting, the HMP project process, existing conditions, program goals and design principles, and the Upper and Lower Harbor Preferred Plans.

Setting

The City of Marquette enjoys a spectacular setting on the south shore of Lake Superior. Evidence of its rich industrial past is represented by picturesque ore docks and thousands of remnant piles that once supported the extensive ship docking associated with its working waterfront heritage. The City is committed to preserving this heritage, while embarking on a plan to create a new vision for the Marquette community of this special waterfront setting.

Process

The City Commission approved the creation of the Mayor's Task Force on Harbor Master Planning on October 15, 2002. The City subsequently contracted with SmithGroup JJR to complete the HMP.

The HMP process included a series of Task Force meetings and public participation events over a six-month time frame. Public participation included interviews with a cross-section of waterfront stakeholders, and public forums to gain an understanding of the variety of perspectives influencing the harborfront. This input influenced the creation of alternative concepts, and finally the Upper and Lower Harbor Preferred Plans. Public input summaries are available upon request at the City of Marquette Department of Planning.

Following completion of the HMP and the adoption of the City's overall Master Plan by the City Commission and Planning Commission, funding opportunities for HMP proposed improvements will be sought.

Existing Conditions

Following is a description of existing conditions in the Upper and Lower Harbors.

Upper Harbor

A: Presque Isle Marina
The public marina has a State and Federal designation as a harbor of refuge. The 30-year old, 95-slip marina is in need of an upgrade. Declining dockage facilities, outdated services, siltation and water depth issues limit its use and desirability.

B: Marina Services Building
The existing building houses the harbor master and support services. The facility appears to need updating from both a functional and aesthetic perspective.

C: Boat Launch
Community launch used primarily by fishing enthusiasts who want easy fishing access to the north.

D: Merchandise Dock
Owned by Cleveland Cliffs with the likelihood of being deeded to the City.

E: Remnant Piles
Large collection of piles that formerly supported docks.

F: Ore Dock
Owned by Cleveland Cliffs and currently active. Will remain in use for the foreseeable future.



Upper Harbor Area



Entry to Presque Isle Park



Existing Conditions at Presque Isle Marina



Lower Harbor Area



Lower Harbor Fish and Association Docks



View of the ore dock from Front Street

Lower Harbor

A: Public Access to Outer Breakwater
United States Army Corps of Engineers owned and maintained breakwater protects the lower harbor. Provides desirable public access primarily for fishing.

B: Coast Guard Station Office/Dock
Coast Guard office and dock are located where the outer breakwater meets the land. Coast Guard residences currently located west of the lighthouse are proposed to be relocated to a new building adjacent to the office and dock.

C: Seasonal Theater
Local entertainment venue for theater productions.

D: Cinder Pond Marina
104-slip public marina with fuel dock, boat launch/travel lift and marina services building. The marina, completed in 1994, is in excellent condition.

E: Mattson Park
Built on former coal dock pilings. Primarily a large open green space for warm weather events and skating in winter. Also contains a clock tower, play structure, and concession/restroom building. The surface walk along the bulkhead is in need of improvement.

F: Yacht Club
Private club consists of approximately 40 full members. Wednesday night Ensign races around a 4.5 mile course.

G: Association Dock and Fish Dock
Privately owned docks are located on State of Michigan bottom lands. Lower harbor dock lessees and the City formed the Marquette Bay Association to purchase former railroad property from Wisconsin Central Ltd. Each lessee then retained ownership of their respective part.

H: Ore Dock
City owned ore dock, located on State of Michigan bottom lands. As Marquette's defining feature, there is broad support to retain the ore dock as a historically significant structure.

I: Ripley's Rock
Natural feature important to the community.

J: Abandoned Spear's Merchandise Docks
Remnant piles formerly supported working docks.

Program Goals and Design Principles

The following Goals and Design Principles were identified during the planning process.

Program Goals/Design Principles

- Maintain and promote public access
- Accommodate multiple water user groups
  - Large
  - Small
  - Recreational
  - Commercial
- Dovetail with current master plan
- Provide serviceable use areas with adequate infrastructure
- Provide long-term flexibility
- Promote sustainability
- Execute elements over time
- Maintain navigational integrity
- Ensure economic viability
- Provide private investment incentives
- Promote year-round use

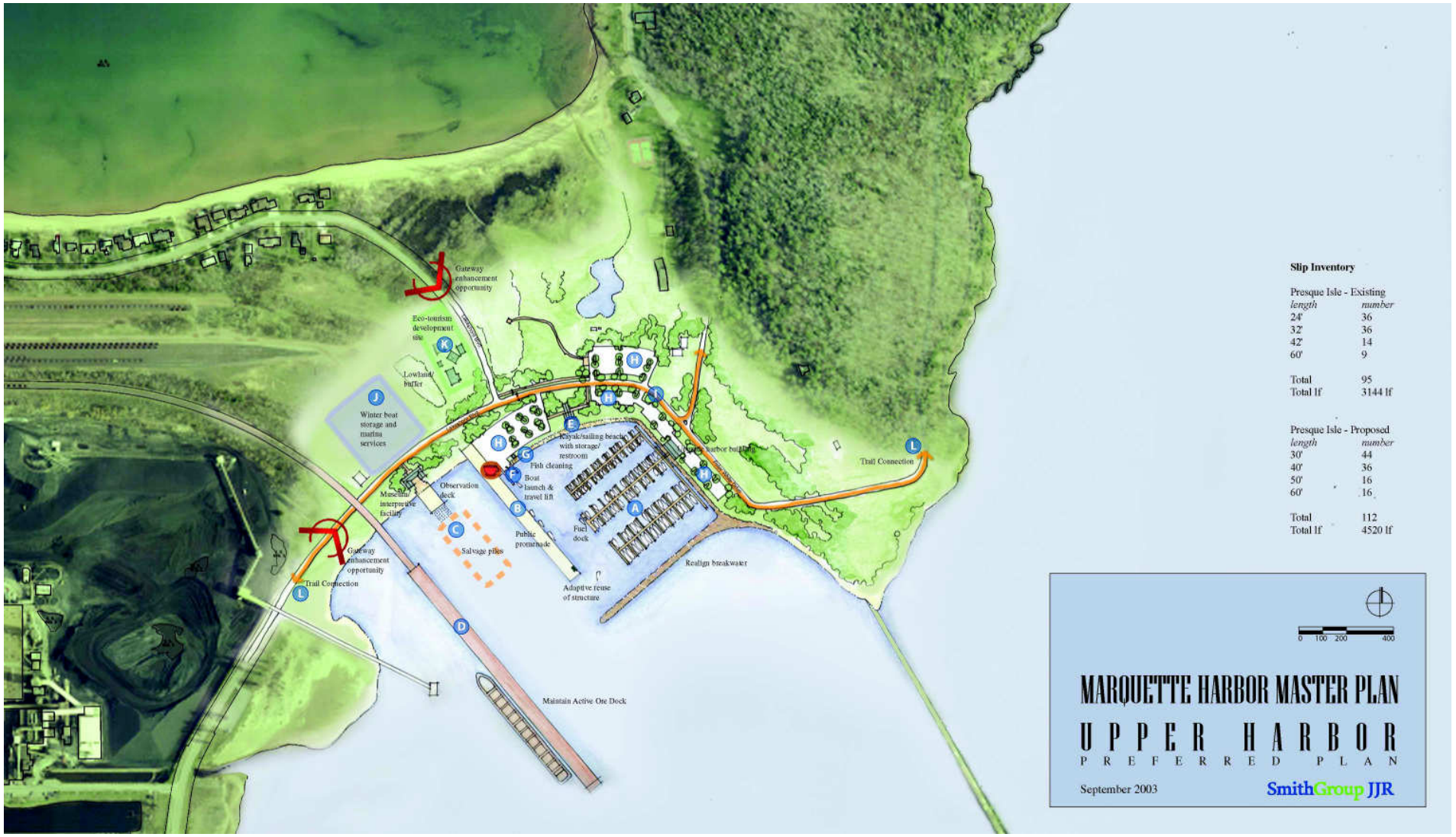


Swimmers at Picnic Rocks



Potenti er activities

APPENDIX H HARBOR MASTER PLAN - 2003



Upper Harbor Preferred Plan

The Upper Harbor Preferred Plan improvements are described below. The improvements incorporate Task Force and public input gathered throughout the planning process. The primary funding source for each of the elements is indicated in parenthesis.

Improvements

A: Presque Isle Marina Improvements (Public)
- Realign breakwater to improve access and efficiency, and reduce siltation
- Update dockage, including current utility/service standards
- Incorporate existing fuel tanks into new fuel dock system
- Upgrade harbor services building
- Update boat mix to include larger boat mix

B: Merchandise Dock (Public)
- Provide public promenade
- Adapt and reuse existing structure at end of dock for vendor or concessionaire

C: Remnant Pilings (Public)
- Incorporate land based museum/interpretive facility
- Reuse remnant piles for an observation deck that extends 100 feet from shore
- Preserve piles 100' beyond proposed observation deck as historic relics
- Salvage remaining piles

D: Cleveland Cliffs Ore Dock (Private)
- Maintain active use

E: Kayak/Sailing Beach (Public)
- Improve beach for kayak and small sailboat put-in/take-out
- Provide kayak/small boat storage building combined with new restroom

F: Boat Launch/Travel Lift
- Relocate launch next to Merchandise Dock
- Incorporate travel lift and pull out as part of launch area

G: Fish Cleaning (Public)
- Provide fish cleaning pavilion adjacent to boat launch

H: Parking (Public)
- Locate parking to accommodate beach, boat launch and additional marina slips
- Develop standards for parking lots that reflect a park-like setting

I: Peter White Drive (Public)
- Realign north of Lakeshore Boulevard to better organize parking and create a park-like entrance experience for both Presque Isle Park and Marina

J: Marina Services Facility (Public)
- Facility proposed on land currently owned by LS&I. Establish a land agreement to develop a marina services facility
- Develop marina facility for service and storage of boats
- The facility can serve both Presque Isle and Cinder Pond Marinas

K: Redevelopment Area (Private/Public Partnership)
- Consider re-use of existing structures on City-owned property for an eco-lodge development, retail, and food/beverage uses

L: Trail Connections
- Maintain recreational trail connections

Vending Opportunities (Private)
- Encourage private vending at key activity areas

Design Character Guidelines

- Develop guidelines that build upon the high quality wilderness parkitecture style established with the park entry, new park pavilion, and gazebo
- The intention of the guidelines is to reinforce the vision and establish parameters for redevelopment











The above images illustrate potential activities and development opportunities envisioned for the Upper Harbor

APPENDIX H HARBOR MASTER PLAN - 2003



Lower Harbor Preferred Plan

The Lower Harbor Preferred Plan improvements are described below. The improvements incorporate Task Force and public input gathered throughout the planning process. The primary funding source for each of the elements is indicated in parenthesis.

Improvements

A: Cinder Pond Marina (Public)
- Maintain current configuration/use
- Adjust transient to seasonal mix as additional slips are built within the harbor

B: Fish Dock (Private)
- Encourage and establish private partnership opportunities
- Provide public promenade
- Expand retail uses
- Encourage consistent architecture
- Encourage vending opportunities
- Provide protective breakwater at the end of dock
- Expand dockage along existing piles
- Reuse piles where possible
- Salvage remaining piles

C: Association Dock (Private)
- Establish private partnership opportunities
- Provide public promenade
- Provide protective breakwater at the end of dock
- Expand dockage along existing piles
- Reuse piles where possible
- Salvage remaining piles

D: Ore Dock (Public/Private Partnership)
- Encourage adaptive reuse for mixed use development
- Provide public access and promenade along perimeter
- Provide public destination at terminus
- Provide protective breakwater at the end of dock
- Maintain architectural integrity of ore dock
- Limit activity on top of dock to historic interpretation
- Provide sensitively designed night lighting
- Accommodate parallel boat docking

E: Hotel/Conference Center Marina (Private)
- Maintain alignment and reuse piles where possible
- Configure breakwater to protect basin from wave action within the outer breakwater
- Provide public promenades with lighting, benches, interpretive features, and terminus features
- Provide visual access of Ripley's Rocks, but limit physical access by separating the breakwater from the island
- Accommodate larger vessels along southern breakwater

F: Harbor Promenade (Public)
- Provide a continuous promenade along the water's edge that links to trails to the north and south
- Maintain public access to the outer breakwater
- Enhance the bulkhead/promenade from Mattson Park to the proposed Hotel/Conference Center
- Create a common palette of amenities such as lighting, seating, interpretive features and other appropriate amenities

G: Linkages to Downtown (Public)
- Provide visual and physical linkages between downtown and the waterfront emphasizing promenades that project into the harbor

H: Trail Connections
- Provide trail connections north of Cinder Pond Marina and to the beach and trail south of the proposed Hotel/Convention Center
- Provide aesthetic fencing adjacent to the Coast Guard

I: Theater/Marina Services (Private)
- Maintain current location of seasonal theater
- Expand seasonal marina services

J: Fish Cleaning Facility (Public)
- Provide fish cleaning facility adjacent to Cinder Pond boat launch

K: Cruiseship Docking(Public)
- Improve bulkhead at Mattson Park to accommodate cruise ships

L: Community Sailing Program (Private)
- Reconfigure dockage for community sailing program

M: Amphitheater (Public)
- Locate amphitheater at the northwest corner of the harbor
- Provide access to floating platform and community sailing dockage

N: Water Taxi (Private)
- Provide docking and wayfinding signage for water taxi
- Provide seasonal service between lower and upper harbor

O: Canoe/Kayak Beach and Storage Facility (Public)
- Provide put-in/take-out beach at the South Railyard development
- Incorporate kayak/canoe/small boat storage into public pavilion proposed for the South Railyard development

Vending Opportunities (Private)
- Encourage private vending at key activity areas



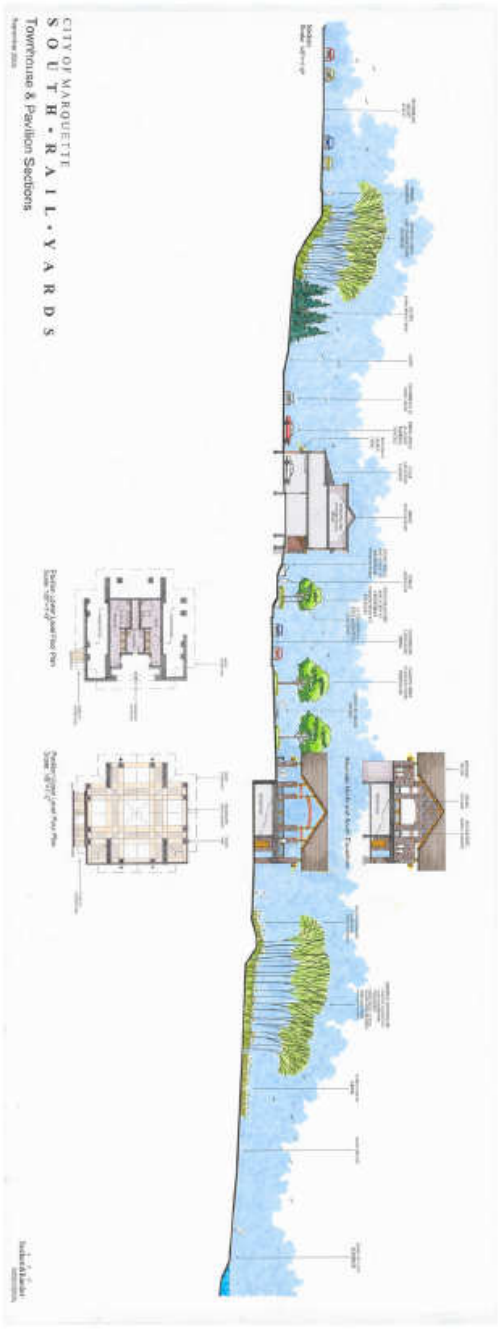





The above images illustrate potential activities and development opportunities envisioned for the Lower Harbor



The proposed design includes new residential opportunities, a public trail system along the lakeshore, and the daylighting of the Whetstone Brook



The new design allows for residential development without sacrificing public access to Lake Superior and its beaches



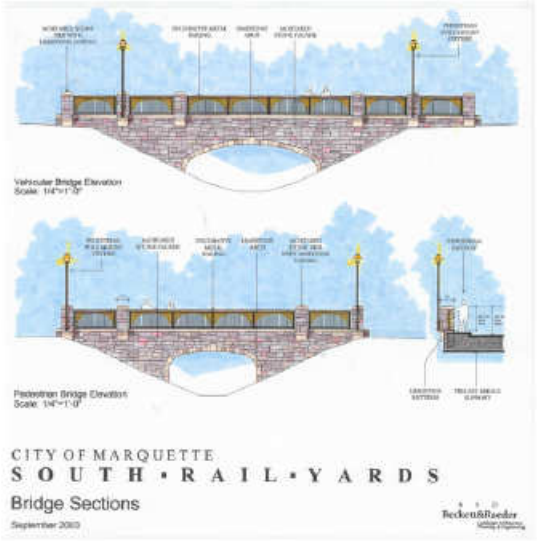


New residential developments will include townhomes as well as single-family homes



New commercial opportunities, such as a hotel / conference center and a museum, will create tourist destinations





Daylighting the Whetstone Brook will help restore some of the area's natural ecology



Photo By Jerry Emlich

Marquette is a city on the rise. It is recognized throughout the Great Lakes region as a city offering an exceptional quality of life, especially for those who value access to the outdoors and a quality environment. There is a strong tourism market and employers like Northern Michigan University and Marquette General Hospital offer stable employment for a well educated work force. The City has supported a very successful downtown revitalization program through its Downtown Development Authority (DDA); spurred redevelopment on former "brownfields" (property that was used for industrial activities in the past) through its Brownfield Redevelopment Authority (MBRA), and collaborated with many partners to foster conditions that have resulted in the community's desirable quality of life.

In 2012 through referendum, the Community formalized the need to focus on economic well-being by incorporating economic development into the City Charter and requiring that the City develop an economic development plan. This plan assists in working toward that goal. The Economic Development Plan was prepared concurrently with the update of the Community Master Plan, and the Charter-mandated City Commission Strategic Plan.

Several opportunities for public engagement were incorporated into these processes, as well as specifically for the Economic Development Plan. These included numerous interviews with economic development stakeholders and random citizens late in 2012, and two public workshops held in 2013. An online survey was also completed at the end of 2012. The comments, concerns, and recommendations of participants in these activities were considered in crafting the final strategies. Individual components of this plan also incorporated public processes, such as the re-establishment of the Local Development Finance Authority (LDFA), which will be discussed later in this document.

Marquette's natural beauty is an enduring source of its appeal. The city is bordered on the north by Lake Superior and accessed by Federal and State highways. It is the largest City in the Upper Peninsula, and serves as the hub for a micropolitan area with a population of approximately 180,000. Marquette stands as the seat of regional government and center for public services. As the host city for Northern Michigan

University and the Superior Health Partners, Education and healthcare providers have been among the city's most important employers.

Marquette is an active and vibrant community with several highly desirable assets, including a well educated population and workforce, a healthy downtown filled with unique shops and restaurants, a strong tourism market, an entrepreneurial community, and a network of regional economic development partners. This Economic Development Plan identifies several specific target opportunities including:

- Professional, scientific and technical services
- Agricultural value chain
- Arts and information
- Health care
- Education
- Tourism

Additionally, the community formed a strong consensus over a core set of values that will shape the planning and execution of its economic development strategy. These are:

- Livable wages and career opportunities
- Quality of the built and natural environment
- Sustainability in economic development practices
- Support for entrepreneurship, businesses expansion, and new business attraction
- Support for local over chain businesses

The overall strategy is comprised of 26 initiatives organized into twelve focus areas. These focus areas and initiatives were defined through public engagement, and have been developed in the context of desired outcomes, available resources and structures, and will require continual need for measurements and adjustment.

Regional Collaboration

OBJECTIVE: Advance issues of regional concern through collaboration with other governments and economic development organizations, when beneficial to City interests.

1. Take advantage of State legislation and development tools, and pursue implementation of a Next Michigan Zone partnership with multiple jurisdictions within Marquette and Delta Counties.
2. Through partnership within the Next Michigan Zone, and in coordination with other State and University partners, explore alternative strategies to address the Upper Peninsula's challenges with regard to electrical power generation and reliability, highways, and other infrastructure.

Supportive Governance

OBJECTIVE: Ensure that City safeguards public interests while imposing the minimal possible burden on businesses.

3. Provide reasonable flexibility for regulatory compliance, while continuing to ensure that community interests are protected.
4. Establish communications programs to keep businesses, property owners, the general public, and elected officials informed of issues related to economic development.

Sustainability
OBJECTIVE: Fully incorporate economic vitality into the City's Sustainability plans.

5. Identify and develop strategies to address potential threats due to natural scenarios, including a response framework to minimize damage and quickly assist in getting reestablished following an incident.

A Voice for Business
OBJECTIVE: Support establishing an organization that can advocate for, and provide services to City of Marquette member businesses.

6. Encourage the City business community to create an organization, such as a Chamber of Commerce, to promote the City's economic prosperity and quality of life. The organization must serve as the exclusive representative for businesses and governmental partnerships within the City, and assume a proactive approach to diversifying the economy. Such an effort will require a concerted effort to support the strengths of our existing companies and growth industries, as well as drive diverse job creation, compliment the strengths of our community, and promote a climate for growth.

Entrepreneurship
OBJECTIVE: Increase the number of new businesses started in Marquette, and the long term success of those businesses.

7. Take advantage of State legislation and development tools, and pursue implementation of a SmartZone corporation with the cities of Houghton and Hancock, Michigan Technological University, Northern Michigan University, and Michigan State University.
8. Foster a climate of entrepreneurship and innovation throughout the community. Implement a Local Development Finance Authority (LDFA) and Tax Increment Finance plan (TIF) to capture resources supporting incubation and acceleration programs and services.
9. Partner with Northern Michigan University and the University of Michigan to foster new and growing businesses through the "Invent@NMU" activity.
10. Seek out opportunities for "collaborative consumption" to offer businesses access to resources they might not otherwise consider.

Healthy Local Businesses
OBJECTIVE: Retain Marquette's existing businesses and encourage their expansion and creation of new employment opportunities.

11. Once the City's Chamber of Commerce is established, suggest it pursue an

aggressive business retention program.
12. Once the City's Chamber of Commerce is established, suggest it provide education and technical support to businesses seeking to tap new market opportunities through the internet and mobile technologies.
13. Collaborate with Marquette General Hospital / Duke LifePoint, and Northern Michigan University, to address their concerns related to growth and expansion.

Regional Food Value Chain
OBJECTIVE: Develop a vibrant and entrepreneurial food economy with a central hub located in Marquette.

14. Support the efforts of the Marquette Food Co-op to develop Marquette as the food hub for the central Upper Peninsula.
15. Encourage the growth of Marquette's food processing industry in artisanal and specialty foods and beverages.

Unique Tourism
OBJECTIVE: Support a growing tourism economy unique to the City of Marquette.

16. Support efforts to develop tourism infrastructure including both public and private attractions.
17. Provide customer service training to enhance the visitor experience.

Arts and Culture
OBJECTIVE: Grow the creative arts economy, and further enhance the City's quality of life.

18. Encourage programs or events that build support for local arts as well as that draw patrons from a multi-state region.
19. Consider the feasibility of partnering with Northern Michigan University to establish an artist-in-residence program, or that provide live-work space for artists through City and private patrons.

Downtown Revitalization
OBJECTIVE: Build upon current downtown investment projects, and past revitalization successes in the downtown and extend revitalization efforts to include additional projects and areas.

20. Continue to expand revitalization efforts. Consider expanding the Downtown Development Authority.
21. Given the potential for profound transformation of the downtown area due to the Duke Lifepoint Hospital relocation project, consider retaining specialized support for identifying unique or coordinated renewal opportunities. Promote the downtown area as a location for taking advantage of the unique environment and access to services.

Real Estate
OBJECTIVE: Encourage preservation, renovation, infill development, and redevelopment projects that create a compact, walkable community.

22. Support owner-initiated preservation and restoration of historic buildings.
23. Provide focused support for redevelop of blighted and under-utilized properties, as well as measures to sell surplus City property and promote infill locations in the city.
24. Create and implement annual measures that identify whether or not adequate supplies of high quality locations for businesses to locate within the city exist.

Changing Demographics
OBJECTIVE: Plan for a community that accommodates the interests and needs of all demographic populations.

25. Consider programs to attract and retain residents based on Marquette's quality of place assets.
26. Plan for infrastructure and programs to accommodate all demographic populations.

STRATEGY

Marquette residents and business leaders shared a number of values or guiding principles that should guide the City's economic development efforts. These have been incorporated into the strategies in this plan, and can serve as a framework for evaluating future economic development actions. The economic development strategy is built upon community values and desires expressed through multiple workshops, surveys, and individual interviews. It takes into account the opportunities and constraints identified through the background analysis, and the capacity and commitment of those organizations that will play a role in implementing the strategies.

This Economic Development Plan will succeed with the collaboration of our economic development partners – such as the Next Michigan Zone, the SmartZone, the Downtown Development Authority, the Marquette Brownfield Redevelopment Authority, the Local Development Finance Authority, our business district associations, key private sector leaders, and local and regional educational institutions – particularly Marquette Area Public Schools, and Northern Michigan University. Once adopted, this plan provides the framework for creating economic growth, to promote innovation through entrepreneurship, and enhance the energy of Marquette's dynamic community.

KEY ECONOMIC DEVELOPMENT PRINCIPLES

Livable Wages and Career Opportunities
Quality jobs are seen as a priority in different ways. There is a need to provide diverse job opportunities for all residents, including career opportunities for college graduates and others in professional or technical fields not well represented in the local economy. This need also addresses concerns about finding appropriate "spouse jobs" for the partners of highly skilled workers recruited by area employers.

A second concern is that new jobs should pay a living wage, adequate to provide the income needed by households to live in the community. In carrying out its economic development initiatives and offering assistance to businesses, the City should prioritize

those projects that will create or preserve skilled jobs and those that offer wages at or above what is considered the living wage.

Quality of the Built and Natural Environment

There are two aspects to this dimension of economic development:

1) what kinds of development should be encouraged; and
2) what is the desired character of development.

The first issue deals with potential impacts resulting from the business operation. Community residents value the quality of the natural environment in and around Marquette, and have stated a preference to encourage new "clean" businesses in the City. These may be described as businesses that do not create excessive pollution or have the potential to create significant environmental threats to the area's natural resources, and particularly Lake Superior. Character of development refers to how new development is designed and constructed. At the most basic level, residents want a community that is compact and walkable. New development should contribute to this goal by efficiently using available land and designing the site and buildings in a way that supports nonmotorized transportation. Commercial buildings should present an attractive façade that harmonizes with its environment, and may consider incorporating green building elements to promote energy efficiency and sustainable design.

Sustainability in Economic Development Practices

To truly incorporate sustainability into economic development means more than simply pursuing a set of so-called green industries. Sustainable development is described as development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs. It typically seeks to achieve a balance between the three competing interests of environmental resources, economic prosperity, and community quality. Sustainable economic development seeks to incorporate key policies and practices towards building long-term value for the city. Examples of sustainable economic development practices might include:

- Developing in a manner that protects or enhances the environment, including both the natural environment and the character of the community (quality of life)
- Focusing economic development resources on building a competitive advantage shared by many businesses, rather than relying solely on one-time grants and subsidies to a single business
- Linking incentive packages and assistance programs to the City's goals related to urban form, environmental quality, social equity, governmental transparency, and other goals
- Creating cost efficiencies by encouraging businesses (and others) to reduce energy consumption, reuse or recycle waste products, and minimize resource consumption
- Investing in programs that promote a highly skilled and adaptable work force, and creating jobs that pay a livable wage and provide good benefits
- Maintaining the health, vitality, and desirability of the city's central area and existing neighborhoods
- Using public policies to create and strengthen markets for green goods and

services. Leading by example, such as implementing green purchasing policies and incorporating green design elements into infrastructure or real estate development projects in which the City invests funds

Support for Entrepreneurship and Businesses Expansion over Business Attraction
Concentrate economic development efforts on home-grown opportunities. The city has a number of outstanding small businesses that could grow with the right forms of support. There is also a large entrepreneurial community from which new businesses might spring. With limited resources, the City of Marquette may concentrate its efforts on supporting its entrepreneurs and existing businesses, while allowing regional economic development organizations to lead efforts to attract new businesses to the area.

Support for Local over Chain Businesses
Marquette has a strong culture of support for local businesses. This desire originates from both the business community as well as residents. Locally owned businesses play an outsized role in leadership and backing for community initiatives, recycle a greater share of their earnings through the local economy, help to create a unique community character, and offer a greater level of service and responsiveness to community needs. In a nation in which communities are becoming ever more homogenous due to the proliferation of chain retail, dining, and service businesses, Marquette's local businesses are critical to maintaining the city's unique identity and attracting visitors who support its tourism economy. As a result, the City must seek balance in its economic development goals. Marquette must consider the potential economic impacts of new large-scale commercial development on existing area businesses even as focus remains on supporting local and start-up businesses.

Measurement, Assessment, Education, and Adaptation
The Economic Development Plan provides the tools to monitor progress and identify appropriate changes to strategies. Plans are not written in stone. Conditions on which this plan is based will change over time, and the City Charter mandates that the plan be updated minimally every two (2) years.

New issues or opportunities will arise that will need to be addressed. Some proposed strategies may not achieve the desired results and may need to be modified. The following practices will help the City to document its progress, assess whether it is having success in implementing strategies and if those strategies are producing satisfactory results, identify needs for learning, and modify the plan as necessary.

Benchmarking
Benchmarking is a practice in which communities measure their progress by comparing themselves to similar communities on a set of change measures. Through its membership in the Michigan Municipal League (MML), the Michigan Local Government Management Association (MLGMA), the International City Management Association (ICMA), and the National League of Cities (NLC), Marquette can assess changes within the city relative to similar places, and determine whether it is making progress relative to it peers. The City can also learn from these places. In many cases, these comparative

communities may have adopted successful policies or programs that can serve as models for similar approaches in Marquette. Several criteria can be used to identify comparative communities for Marquette, minimally including:

1) core economic clusters and economic health;
2) demographics; and
3) regional factors.

This latter criterion includes distance from metropolitan/micropolitan/international areas, multi-modal transportation infrastructure, relative development of adjacent jurisdictions and areas, and presence of recreational amenities. Not all communities will be a perfect match on all criteria. Some communities will compare more closely to Marquette than others, which might be described as "aspirational" places. As an example of independent third-party assessment, the Policom Corporation publishes annual economic strength surveys, and Marquette ranked 197th of 576 U.S. micropolitan areas in 2012.

Data

Data, as used here, has three meanings:

1) What information is required to make policy decisions and execute economic development programming?

Individual projects will require specific information on which to base decisions and craft effective planning. For example, there has been discussion of establishing a customs office to support international trade through the port and airport. Before committing the funds necessary to develop and operate such a facility, the City should conduct the necessary research to determine the market opportunity, what products might move through the area, what additional infrastructure would be needed to support that movement, what advantage would Marquette offer over competing locations, what cost or time advantages there might be for businesses, etc.

2) What additional knowledge or skills training is required for economic development leaders?

The practice of economic development requires broad community commitment and public-private-partnership ("P3") to address constantly changing opportunities. Agile, highly networked access to knowledgeable resources and skills will be necessary to holistically support current or planned initiatives.

3) What information must be disseminated to the public to keep citizens informed about economic development activities and the reasoning behind public actions?

Marquette has a very engaged citizenry, who expect economic development decisions are made with public engagement and based upon thoughtful analysis. Leaders should ensure that information is shared with the public to keep them informed and educated about economic development activities.

Progress Assessment and Adaptation

For each local jurisdiction, public organization, and private partner, an annual report will include updates on joint initiatives as part of a communications strategy for economic development. Reporting will document progress towards implementing recommendations, and discuss issues impacting milestones and timelines. The report may also include a benchmark analysis comparing Marquette with other communities, and discuss best practices learned from these communities or other sources. On an annual basis, leaders should review the information that has been collected and assess the following:

- *How has the City performed relative to its comparison communities?*
- *Has the City made reasonable progress in implementing the Economic Development Plan?*
- *Have the implemented strategies had the desired effects, taking into consideration the time necessary for those effects to manifest themselves?*
    - o *If so, can they be enhanced?*
    - o *If not, why have then not worked?*
- *Have new concerns or opportunities presented themselves that may now need to be addressed through the City's economic development efforts?*
- *Are there best practices or new methods or resources that may be employed to improve the City's economic development strategies?*
- *Are additional resources needed to execute the economic development strategy?*

Based on these questions, and with advice from City staff, the City Commission, with its economic development partners, may consider modifications to the Economic Development Plan, which will be reflected in an annual work plan.

NEXT STEPS

The over-arching principles and targeted industries outlined in this plan are designed to promote economic development growth, enhance job creation, and provide opportunities to strengthen and support the quality of life and amenities throughout Marquette. Once adopted, City staff will create an updated Economic Development Report that will track each of the specific strategies herein as well as create a list of measurable outcome criteria for evaluating economic development activities.

ONGOING EVALUATION

Using the criteria for measuring the success of our economic development efforts, the City will re-assess its priorities and programs in light of changing conditions and opportunities, and will adapt these as needed. As per City Charter, staff will undertake a more comprehensive review of the goals, principles and targeted outcomes defined in this plan every two years.



Introduction

This appendix provides an update to the Community Master Plan (CMP) adopted in August 2015, as directed by the Planning Commission. An annual review of the CMP was recommended in the "Master Plan Maintenance" section of Chapter 3, and the review for this year was begun in December of 2016. Several issues were reviewed by the Planning Commission, with requests for changes in the Future Land Use map designations of two properties (by two separate parties), in 2016, being a catalyst to ensure that a review would take place. The following issues were considered during several regularly-scheduled Planning Commission meetings, between December 2016 and May of 2017, and each topic is discussed in terms of providing updates following the recommendations:

- **Demographics**
- **Community Facilities and Services**
- **Transportation**
- **Housing**
- **Land Use and Zoning**
- **Land Development Code Project**
- **Energy Production and Distribution**
- **Environment**
- **Community Food Systems**

Several recommendations follow from the analysis of the issues that were considered in the following text. Please advance to p.J-26 to view the concise recommendations.

Demographics

There has been a historic level of property development, new business openings and expansions, and street projects undertaken in the past two years in the City of Marquette. Local residents are quick to point out that they have never seen such a flurry of investment activity. It begs the question – "how much is Marquette growing"? The resident population of the city is not easy to pinpoint without a major undertaking, which is what the decennial census constitutes, and while the Census Bureau does provide estimates they are quite unreliable as to being able to establish a number that is provides a realistic position of our resident population. That is complicated by the fact that both Northern Michigan University (NMU) and the Marquette Branch Prison both house a large number of city residents (by the Census Bureau's methodology), and have annually fluctuating numbers of these residents. But the Census Bureau's 2015 *American*

Community Survey, which extrapolates from sample data, put Marquette's population at 21,444, just 89 persons above the 2010 decennial census number of 21,355.

The construction of the new hospital and several roundabouts and other road construction has hundreds of out-of-town construction tradespeople working in the city during the work week, which has certainly increased the population of the city to some extent. NMU has had two consecutive years of significant enrollment increases. In September of 2018 the University reported that new student enrollment numbers were up 9.9 percent, including a 7 percent increase in freshmen enrollment and a 20 percent increase in transfer students. A year earlier NMU reported an 11 percent overall increase, with more new freshmen, new graduate students, transfer students, and nearly 600 added Educational Access Network students.

There are many national demographic trends that are certainly also occurring locally, such as young people remaining at home longer and the average marriage occurring much later in life now than it did 40 years ago, but the aging of the population is likely to be the most significant issue for Marquette, as reported in 2015. The U.S. Census Bureau projects that the number of persons over 65 years will, for the first time ever, outnumber the children under age 18 by the year 2035.

Community Facilities and Services

There are several changes to community facilities since 2015, including the following.

Municipal facilities

Clark Lambros' Beach Park



In 2016 a new park opened on N. Lakeshore Blvd., just south of Presque Isle Park. Clark Lambros' Beach Park was a legacy project initiated by local business owner Michele Butler in honor of her late partner, who donated the park land to the City for the park, which spans approximately a thousand feet of L. Superior shoreline and extends west along the Dead River. With proceeds of a Natural Resource Trust Fund grant, amenities were established including parking lot, restroom facility, picnic area, beach wall, ADA accessible decking to the water, and lifeguard stands. On the Dead River side, the park features a kayak launch area, with a facility that can be utilized by a wheelchair user to access a kayak.

Municipal Service Center

As part of the land transfer that was negotiated between the City of Marquette and Duke LifePoint for the site to build the new U.P. Health Systems-Marquette medical campus, the City abandoned its Municipal Service Center (MSC) on W. Baraga Ave. and has built a new facility for the same purposes at 1100 Wright St. just north of the NMU academic campus. The new MSC has more office space and more covered space than

the previous facility did for the maintenance and repair of the wide variety of vehicles and heavy machinery that are used in municipal public works operations and by line staff. It also has a large room to hold community meetings and other events, as well as a large staff/committee conference room on the second floor. The MSC property was assembled in about one year and was formerly used by the US Forest Service (on leased land the City owned), NMU (for parking), and the UP Sportsplex (mentioned on p.7-18).

Lakeview Arena

On April 30, 2016, Marquette was named Kraft Hockeyville USA 2016, and along with the recognition came the opportunity to host a televised National Hockey League preseason game, which was held Oct. 4th, between the Buffalo Sabers and the Carolina Hurricanes. A monetary award of $150,000 for upgrades to Lakeview Arena was the grand prize in the Hockeyville competition. Marquette was one of more than 1,000 communities which submitted stories about the passion of hockey in their towns.

Prior to the NHL game, volunteers helped city staff to clean and re-paint the interior of the building, and significant improvements were made to the compressor system and Zambonis, protective glass on the rinks, and the Russell rink sound system was upgraded. About two-thirds of the funding award has been reserved and the rest will be used to address priorities that have been identified, with the intention to leverage some of the unspent funds as a match for another grant, to maximize the benefits of the award. That process could take a couple of years, but it is important to spend the money wisely and for maximum effect. Lakeview Arena, with all the events it hosts, is a major economic driver in the city. In July of 2018, the City hired All Star Arenas to conduct an evaluation of Lakeview Arena and a public planning process that will result in a detailed plan that will prioritize current and future needs of the facility, including asset replacement and associated costs. The project is expected to be completed with a full set of recommendations in the fall 2018.

Father Marquette Park

On July 15, 2018, the re-dedication of this previously under-utilized park that overlooks the lower harbor on the south side of downtown was conducted by the Marquette Beautification and Restoration Committee and the City of Marquette. Accessible picnic areas have been created, and a new, accessible walking path was installed between the parking lot off Baraga Ave. and the overlook, traversing the east slope of the park. A stairway access to/from Lakeshore Blvd. has also been built. And the site was re-landscaped with a permanent irrigation system installed.



A new path surrounds the Fr. Marquette statue, and a new overlook was created and named for the late Karl Zuger, who coordinated the project for the City of Marquette.

Lighthouse Park (former Coast Guard station property)
The City of Marquette acquired the former Coast Guard station property at McCarty's Cove in 2016, after a lengthy transaction process. A land use plan was created for the property in 2017 by a local consulting firm, and adopted in 2018. The red lighthouse on the property is an icon of the Marquette landscape. In the spring of 2018 the City Commission authorized funding for improvements to this new park.

Presque Isle Park – Dark Sky Park
In 2017, the City opened the southwest portion of the flagship park to stargazers for a trial period that ran from Sept. 11 to Oct. 31, 11 p.m. to 1 a.m., Friday to Saturday, and Saturday to Sunday. The "Dark Sky Park" sampler was largely successful, and a second trial period for the Dark Sky Park at Presque Isle was approved for the period of June 1st through Oct. 31 of 2018, during the same hours and days as 2017. This community-focused project was sponsored by the Marquette Astronomical Society, and city staff worked to develop an operational compromise to support the project, and after this summer it should be determined whether this can be an ongoing program.

Johnson Controls Inc. (JCI) Project
In August of 2017, the City authorized an energy-performance project, for improvements of city infrastructure, particularly to make significant upgrades to the energy utilization of municipal facilities. It was estimated that the City would save about $42 million over twenty years after project completion. The project includes major renovations to City Hall and Lakeview Arena, traffic signal upgrades at 22 intersections, residential water meter upgrades, street light replacements, and equipment updates at the Water and Wastewater treatment plants. The project has a two-year window for completion, and the re-construction and equipment upgrades are anticipated to conclude in 2019.

Other significant facilities

New U.P. Health Systems – Marquette campus (under construction)



Earthwork on the new hospital campus of U.P. Health Systems - Marquette began in the spring of 2016. Approximately one year later the first phase buildings were framed with structural steel, and a portion had wall framing and exterior cladding in place. Construction is slated to take approximately 30 months in total, so the hospital should be open by the end of 2018. The project was approved as a Planned Unit Development (PUD) in 2015, after Duke LifePoint (DLP) acquired the formal Marquette General Hospital and decided to construct a new facility that would replace the existing hospital, portions of which (the former St. Luke's hospital) date back to 1917. A lengthy site selection process ended with the selection of the City's 29-acre former Municipal Service Center site for the new hospital campus.



Existing U.P. Health Systems – Marquette campus
Planning for re-use of the existing hospital campus has been conducted by Duke-LifePoint without substantial input from the community. The Planning Commission has requested to have representatives from the ownership discuss their ideas and plans for the property, but no discussions have occurred and no communication has been made by the owners with the Planning Commission. Zoning for the future of the existing campus property is a major concern, and in the absence of any information from the property owners the Planning Commission has decided to apply Mixed Use as the most appropriate category for future land use and proposed zoning in this update of the CMP.

Northern Michigan University
Housing on the NMU campus is undergoing a major transformation, beginning in 2016 the plan to erect six new housing buildings and remove four outdated buildings got underway. According to NMU facilities staff, the current number of available beds in the existing dorms is 1,182. In the new dorms, there will be 1,229 beds. The dorms being shut-down and demolished are Payne (2016), Halverson (2017), and Gant/Spalding (either 2018 or 2019). NMU is also razing the Center/Summit Street apartments near the campus. The first two new buildings opened to students in the fall of 2017.



Transportation

Street Reconstruction
During the spring-fall of 2017 several roundabout projects were constructed in the city. Along the US-41/M-28 Bypass there were two roundabouts built, one at Grove/7th St. and one for direct access to the UPHSM medical campus, plus a small roundabout was built on W. Baraga Ave. to prevent traffic backing up into the highway bypass at the medical campus exit. A new overpass for the City's multi-use path was constructed at the new hospital site to allow for ambulance travel to and from the ambulance garage on Washington Street and for ambulance access to Washington Street. The new bridge is not intended to allow for general access to the hospital campus from Washington

Street. Both Seventh St. and McClellan Ave. have been widened to provide for left turn lanes onto Baraga Avenue, for hospital access.

Two roundabouts were also built on Wright Street, at Sugarloaf Ave. and Lincoln Ave., as a fulfillment of the corridor safety plan developed jointly between the City and Lundin Mining. Another roundabout was constructed at the junction of Fair Ave. and Presque Isle Ave., to improve traffic flow through that intersection, which was plagued by periodic long delays on Fair Ave. and geometric shortcomings on Presque Isle Avenue. Other street improvements since summer 2015 include the reconstruction of Presque Isle Ave. between the roundabout at Fair Ave. and Wright St., as well as several collector streets and local roads, the paving of several gravel streets and alleys.

The Michigan Department of Transportation is also improving two intersections in the City of Marquette during the summer of 2018. US-41 at M-553 will have a pedestrian signal/crosswalk added to the intersection, along with the construction of a pedestrian refuge island between the eastbound and westbound lanes. The Grove Street/M-553 intersection is also being converted from a four-way stop to a signalized intersection.



Roundabout on the US-41/M-28 Bypass at the Seventh St./Grove St. junction.

Pedestrian and Bicycle Facilities

Since the summer of 2015 the City has created about two (2) miles of new bicycle facilities on city streets (W. Baraga Ave., W. Fair Ave., Wright St., N. Third St.), and has built over 3,000 ft. of new sidewalks in addition to the annual replacement and repair of dozens of sections of sidewalk and the installation of dozens of new curb ramps with street reconstruction projects. A new sidewalk between Genesee St. and the US-41/M-28 bypass bridge on Altamont St. provided a long-needed safe route along an arterial street that had no sidewalks, and enhanced a Safe Routes to School project that funded the construction of sidewalks along Mesnard St. and one block of Altamont St. in the area of Bothwell Middle School. More bicycle facilities and improved sidewalk facilities are being



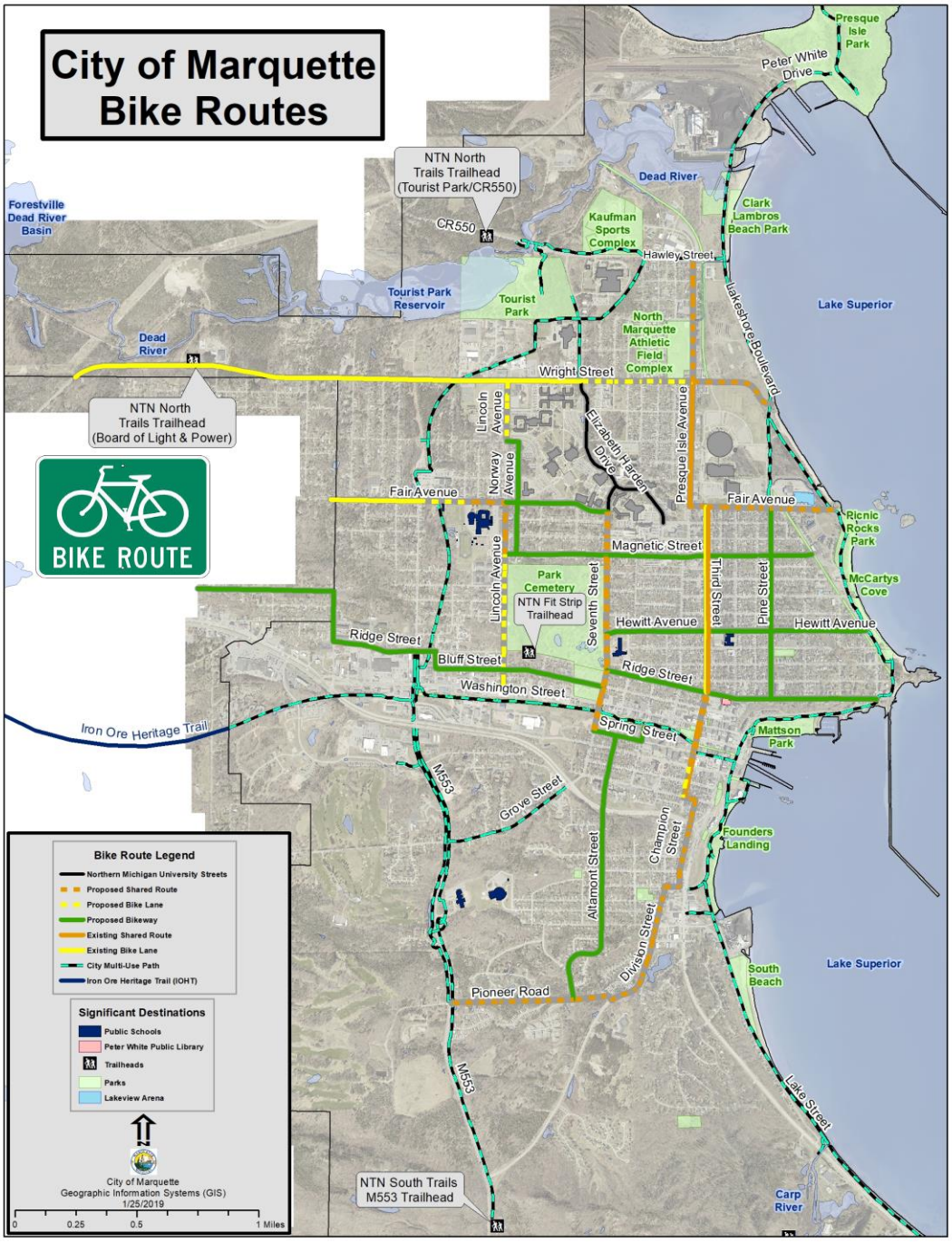
New sidewalk on the west side of Altamont St. - 2017

constructed along Presque Isle Avenue as well, during the summer of 2018.

Bicycle Routes and Network Plan

Building on the "suggested on-road bikeway network" that is shown on p. 6-18, and the recommendation to expand bicycle facilities (p.6-34), a system of proposed bike routes has been developed and is shown below in the following graphic (figure J-1).

Figure J-1: Proposed On-Street Bicycle Route System



The routes include the designation of bicycle lanes, shared-lane facilities, and signed routes (without street markings) that will traverse the City, connecting the existing bicycle path system to city streets. There is widespread public support for developing a system of marked bicycle routes across the City, and to integrate those with the extensive paved path network that is largely at the outer margins of the City. At this time there are also three trail groups - the Iron Ore Heritage Trail (IOHT), the Noquemanon Trail Network (NTN), and the North Country Trail (NCT) - that desire to have the pathway network connected to more destinations in the city, and to have consistent wayfinding signage for cyclists. Connecting the paved pathways to bicycle routes on city streets will help all road users with wayfinding, as the green "bike route" signs will be accompanied in key places by placards that provide direction to key destinations/attractions for users of the path/trails systems.

Portions of the proposed network are already in place, with the eleven (11) blocks of the N. Third St. bike route that was implemented in summer 2015 being the first such route to connect to the downtown core. Staff has been researching options for an on-street bicycle route system for most of the past decade, with an outreach/survey effort being conducted in 2009, and a more robust study of potential routes conducted during 2016-2017, including bicycle counts at various intersections and surveys of bicyclists. Staff submitted this issue for inclusion to the City Strategic Plan in spring of 2018 as well.

Lakeshore Blvd. Corridor Study

The Planning Commission is recommending that a study be commissioned for land and transportation development in the Lakeshore Boulevard corridor, between Elwood Mattson Park and Presque Isle, as soon as resources are available. This corridor has begun to suffer from being loved too much, and development of several lots in this segment of the corridor will occur over time. Gathering fresh community input and having expert analysis of the characteristics of the area would help decision-makers with the difficult development choices that are likely to be presented. This is a study that should be conducted as soon as possible once the Land Development Code project has been completed. Northern Michigan University could be engaged as a collaborator or study partner, particularly in gathering community input to this planning process.

Public Transit

The Marquette County Transit Authority (Marq-Tran) has been working to complete a Coordinated Human Services Transportation Plan document (CHSTP), a plan that once adopted by the Federal Transit Administration (FTA) would facilitate the acquisition of FTA grants for transit capital and operating expenses (such as the purchase of a transit van and enough funding to operate it for several hours per day). The City's planning staff has assisted in the creation of this document. This project was begun in the spring of 2017 and is anticipated to be completed in the winter of 2018-2019.

The CHSTP will build on the comprehensive county-wide transit study presented in the *Mobility Management and Coordination Strategies* report that was completed in 2013 by Smart Growth America and its subcontractor Current Transportation Solutions. The Planning Commission envisions regular and efficient public transit in certain portions of the city, which would provide a great service to our aging population while relieving pressure on limited surface parking, especially during the winter months when travel can be difficult and dangerous, whether driving or walking.

Other models for establishing an urban transit system (rather than a government-operated or subsidized system) should be considered if FTA funding proves difficult to acquire, and one example is the Stevens Point, WI transit system, which began with one van and a shared investment by a group of residents that simply wanted a transit route that they and their neighbors could use. Corporate-funded systems have also worked.

Housing

Short-Term Rentals (STRs)

In May of 2017, the City Commission adopted an Ordinance that the Planning Commission and the City's Fire Department recommended, after more than a year and a half of study, public meetings, and various iterations of draft language to create codes for allowing short-term residential rentals (STRs) as a principal use in several zoning districts and for establishing standards for this rapidly spreading type of home rental.

The City of Marquette adopted regulation for STRs based on the following policy objectives:

- Minimize public safety risks and nuisances.
- Give law-abiding and respectful citizens the option to utilize their homes as short-term rentals.
- Ensure that STR homes are not turned into "party houses"
- Minimize potential parking problems for neighbors.
- Ensure single-family neighborhoods become better for families and not worse.
- Regulate STRs to prevent negative impacts on property values and to prevent other unintended negative effects.

Two types of STRs were adopted – Homestays and Vacation Home Rentals – with the former being an owner-occupied option for renting up to three rooms at once and that was previously allowed by code on a longer-term basis, and the latter being a whole-house rental to one party by an owner who is likely not staying in the home. A cap of 250 STR properties was mandated by the Commission at that time, as well as a public hearing for a one-year review of the issue.

The City Commission reviewed the codes allowing STRs in two work session with the Planning Commission in early 2018, and in May of 2018 adopted several recommendations made by the Planning Commission to amend the Zoning Ordinance, as well as amendments to the City Codes recommended by the Fire Department.

Legislation introduced in the Michigan legislature during 2018 to limit local control of STRs (to restrict regulation to nuisance and housing codes) is contrary to good public policy by inadequately considering the interests of all property owners and by seeking to change the basic premise of local land-use control. STRs are lawful activities and communities need the flexibility to decide where STRs can appropriately be located.

Housing Affordability

The study and adoption of short-term rental codes in Marquette brought much discussion of the availability and affordability of housing in the city. It is a very commonly heard complaint that housing has become too expensive – unaffordable - for many people wishing to live here, and the Planning Commission is concerned that this

issue must be proactively addressed. It seems that in many places nationwide there is both an affordable-housing crisis and a *housing affordability* crisis, the latter is the widening gap between what working people have money to spend on housing costs and what developers and builders can design, develop, and construct profitably.

Affordable housing – which refers to housing units that are affordable by that section of society whose income is below the median household income - is an asset for a community in that it will help housing values overall and economic development in the long run. Once a place becomes popular and/or a tight housing market develops it is a very complex thing to address. It is now safe to say that Marquette is a community that many people aspire to live in, and that housing affordability is having an impact on who buys a home in the city versus buying a home in Negaunee, Ishpeming, Gwinn, Chocolay Township, Marquette Township, or elsewhere in Marquette County.

The "Housing Wage" is the hourly wage a full-time worker must earn to afford a modest rental home without spending more than 30% of income on housing costs, and the average Michigander in 2018 must earn $16.25/hr. to afford a Fair Market Rent two-bedroom apartment, while someone working for minimum wage ($9.25/hr.) would need to work 73 hrs./week to afford such accommodations in Ann Arbor, while the typical worker there earning minimum wage can only afford $481/month in rent. A worker making 30% of median income there can afford only $510/mo., while someone earning the median income can afford rent of $1,700/month (source: National Low Income Housing Coalition).

Some things to understand about housing affordability, according to Jamie Ross, CEO of the Florida Housing Coalition (speaking at the 2017 Michigan Assoc. of Planning annual conference):

- A variety of price points does not equate to affordability.
- Density does not equate to affordability.
- Market forces will not produce affordable housing in the absence of government policy
- The price of housing is what a market will bear unless government sets aside land for affordable housing and/or requires development agreements for deed-restricted affordable housing.

Some things that are typically needed to create affordable housing where it is missing are (in not specific order):

- A) a funding stream for subsidy programs (low-income housing tax credits) and/or trust funds (e.g. the Sadowski Coalition that consists of 30 statewide orgs.);
- B) public-private agreements for deed-restricted housing development;
- C) municipal land set-asides for affordable units, or a land trust to do the same,
- D) inclusionary zoning

"Not in my back yard" (NIMBY) controversies/issues are to be expected if/where subsidized housing is proposed. But, it won't be long before the lack of affordable housing becomes a stain on the otherwise appealing "community portfolio" for the City

of Marquette, if that is not already taking the shine off the reputation of Marquette as a destination community.

Planning and Zoning – the Master Plan and Land Development Code

Future Land Use and Zoning

The guiding instrument for decision makers for land use issues such as designating areas for specific land uses through zoning, rezoning requests, planned unit development (PUDs), and the development of public/civic capital projects is the Future Land Use Map (FLUM) of the Community Master Plan (CMP).

The Proposed Zoning Map (PZM), found in Chapter 3 of the CMP, is linked to the FLUM by virtue of the proposed zoning districts being the product of the designation of the land use in the FLUM. After the land was designated and mapped for specific future land uses, the most appropriate zoning district was recommended in the PZM for application to subject properties corresponding to the FLUM.

This update to the CMP was begun prior to the start of the Land Development Code (LDC) project (see below for LDC information), but as the LDC project has progressed there have been several considerations made to how land uses in specific areas might be improved upon by the application of different types of zoning districts and/or updated zoning standards. Those include the reconsideration of all non-municipal, public property. State, federal, and county landholdings within the City are now proposed to be placed into the new Civic (C) zoning category, along with some other public/quasi-public property uses. This was determined to be a cleaner approach than having a Civic district and a "State and Federal" district as proposed in 2015 (see Chapter Three). Land owned by the Board of Light and Power (BLP) is still proposed to be subject to a new zoning district that is tailored to land uses that the BLP requires.

While the Municipal (M) zoning district, which is flexible for a variety of land uses is still recommended for much of the City's landholdings, the Land Development Code Advisory Committee (ad hoc, Sept. 2017-Sept. 2018), and the Planning Commission agreed to recommend placing all municipal parks into the Conservation-Recreation zoning district to provide certainty to the community that the City's parks would only be used for conservation and recreation purposes. This does not apply to linear parks/pathways that exist outside of named parks, some of which are in the right-of-way, and some of which were on property zoned for prior uses (e.g. Industrial, for railroad use). Paths in areas with zoning will be re-zoned into the Municipal category.

Another issue that the Planning Commission is dealing with through the Future Land Use Map is the identification of appropriate nodes for the development of "corner stores" or neighborhood groceries, which will be done via the designation of such a parcel as a Neighborhood Commercial on the FLUM. That will translate to the Proposed Zoning Map as a Mixed-Use (MU) zoning district. Updates to the CMP should proactively consider this option, otherwise it will be difficult to accomplish new "corner/neighborhood stores" through rezoning (due to "spot zoning" implications) if the land is not already identified in the CMP this way to allow for commercial use.

In addition, a large area of land that was purchased with the Heartwood Forestland acquisition is being designated for long-term conservation, while another portion that was recommended for non-municipal use is being sold to two private parties. At the time of this writing City staff is working to place 100 acres north of the Carp River into a USDA Community Forest Program. With this program the City can receive up to $.50 on the dollar for the property value, as opposed to simply placing a Conservation Easement on the property and having no revenue produced for the term of the easement. The program is limited to $460,000.00, thus only the 100 acres of designation.

The land selected for designation was vetted through the Community Development Department and the Superior Watershed Partnership based upon existing plans, discussion with third parties, and represents protecting the integrity of the existing NTN "South Trails" trailhead and the Carp River valley on the west side of 553. The remainder of the property not being sold or placed in Community Forest may be placed in a Conservation Easement, similar to Clark Park, with a third-party steward to monitor the adherence to the conditions of the easement. In general, Conservation Easements will place the property as open space in perpetuity, subject to terms and conditions that the City, as the landowner, may place on the easement.

Updates have been approved by the Planning Commission to expand the area for mixed uses being proposed for "Heartwood parcels" 9, 10, 11, and 12 (per the map created for the land in 2010). This municipal land is being sold to a private party, and the 2015 Future Land Use Map was a mix of residential and mixed-use, which are allowed to be blended in a mixed-use zoning district.

The Planning Commission (PC) received three requests to have the designated Future Land Use Map categories of residential properties changed since 2015, as well as a notification that a parcel owned by Marquette County was being sold and which required action by the PC to re-designate the Future Land Use Map category for the property.

Some other minor changes have been made to the FLUM and PZM, mainly map corrections, as well as taking all known houses of worship out of the Civic land use and zoning categories, as to avoid any conflicts with laws preventing zoning for "religious land uses" that is stricter than land uses for comparable functions that are non-religious in nature.



Land Division

The word 'granular' is used to describe something that is made up of multiple elements. If the elements are small, we call it "fine-grained," and if the elements are large, we call it "coarse-grained." These are terms typically used in economics, computer science and geology. We can also use these terms when talking about cities. Granularity may be used as a descriptor of the ownership of a city and how land is divided, particularly in terms of the size of the lots that city blocks are divided into. On the right, you can see this illustrated. Small lots on the left side and a big lot to the right.

Following are reasons why this is important, and why the City of Marquette should consider dividing land it owns and is selling into smaller parcels, and the closer the land is to the urban core the more this should be a priority to determine. But, even parcels outside of the urban core may be more valuable to sell as smaller parcels.

Fine-grained urbanism is preferable because it implies

1. **Diverse ownership.** Each individual lot typically has a different owner. Different owners provide a diverse portfolio of ownership that will add interesting property use diversity and provide a hedge against the potential problems that come with one owner controlling a large property in a city. Diverse ownership and lower cost of entry go hand in hand. It takes a lot of money, tens of millions, to build a huge building with many residential units, whereas in contrast one or two townhomes could be built for a single percent of the huge building cost. Lower entry cost creates more opportunities for more people to thrive and add to the urban fabric of the city.
2. **Lower cost of entry.** If we ignore the underlying price of land (small lots in general should be cheaper because you are buying less land), it takes less money to build a shop or a home on a small narrow lot, than building an entire apartment complex. Urban development should not be expensive by itself. I worry that the high cost of entry brought on by coarse-grained urbanism is leading to economic polarization where only those who already have money can invest and create more wealth, and everyone else is a mere consumer.
3. **More destinations within walking distance.** An important part of good urbanism is fitting as much as possible within walking distance, so naturally, fitting more in gives you more choices to walk to. If we consider each building a destination, fine-grained urban areas are naturally more walkable because we have more destinations within walking distance than coarse-grained urban areas in general. When your lots are only 20 feet wide, you are naturally going to have a destination (a building, an office, a shop, etc.) entrance every 20 feet along the street:
4. **Greater resistance to bad buildings.** Bad buildings can make less of an impact when they are limited in size. A property owner that builds a dull or ugly building, allows their building to become run down, or abandons it, negatively affects the streetscape. However, we can minimize the overall impact to the streetscape if the ugly or derelict building is just one of many along the block.

Land Development Code Project

Since kicking the project off in June of 2017 the City of Marquette has been fully engaged in the monumental task of overhauling all of its codes that specifically address the use and development of private property in the city - namely the Zoning Ordinance and Waterfront Form-based Codes, the Sign Ordinance, the Fence Ordinance, and the Subdivision Ordinance - with the goal of consolidating these ordinances into a modern, user-friendly Land Development Code (LDC) document. The LDC project is the fulfillment of a long-established need to update the entire Zoning Ordinance, which was adopted in 1978 and amended dozens of times in the intervening years. The Sign Ordinance, the Fence Ordinance, and the Subdivision Ordinance also have had a long run and have outdated materials that are being addressed while these separate

ordinances are being brought together in one code with zoning and two form-based codes.

The intended impacts of this project are to update zoning districts and standards for various land uses and development, to reduce the complexity of the current land-use ordinances and reduce the number of variance cases caused by outdated standards, to incorporate new standards for increased environmental protection and the mitigation of the negative impacts of urbanization and growth. The LDC project will result in the rezoning of many properties, via the adoption of a Zoning Map that identifies the specific location of the zoning districts, by individual parcels, as described in the LDC document and general conformance with the Proposed Zoning Map adopted in this update to the Community Master Plan.

The Downtown Marquette Waterfront form-based Code will be kept, with minor updates, and the Third Street Corridor (TSC) form-based Code that was adopted into the CMP in 2015 is being implemented for the first time through this project. Some amendments to the proposed TSC code have been drafted. The South Marquette Waterfront (SMW) form-based Code was recommended for decommissioning through this project, due to a record of ineffectiveness and a contemporary view that it was well-intended but not a good fit for an area that could be better served by zoning districts, including modern mixed-use districts that are not nearly as specifically allocated as are the subdistricts of the SMW code.

The City of Marquette was awarded a cash grant of $35,040 towards the completion of the LDC project by the Michigan Coastal Zone Management Program, Office of the Great Lakes, Department of Environmental Quality and the National Oceanic and Atmospheric Administration.

The draft LDC document consists of fifteen (15) Articles covering all of the necessary ordinance elements, and the Planning Commission (PC) is responsible for the content that will be presented for adoption by the City Commission in the fall of 2018. An ad-hoc committee - the Land Development Code Advisory Committee (LDCAC) - was established by the City Commission in August of 2017 to provide oversight and input to the process of developing the LDC document.

McKenna Associates of Michigan has provided expert consulting services, and has drafted and re-drafted code language and graphics for the document, provided meeting facilitation along with staff, and reported to staff and the two committees above with a monthly presentation.

Staff has worked closely with the consultants and committees to ensure the LDC will be the right code for Marquette, that it incorporates recommendations of the Community Master Plan (2015), and that it reflects amendments that the committees and staff have requested. Since review of the draft LDC documents began, each Planning Commission meeting (two/month typically) has included a work session on this project, while the LDCAC has held one meeting each month, with one exception, since September of 2017.

At the time of this writing (mid-August of 2018), the vast majority of the LDC document has been through two drafts, and all items presented have been thoroughly evaluated, discussed, debated and settled through the committee's review processes. The second

draft will be completed in September and the Planning Commission will begin a public hearing process for adoption of the LDC during the same month, if things go according to plan. Adoption of the LDC should be completed by the end of 2018.

Environment

Materials Recycling

Many city residents were dismayed upon learning that the recycling of glass in the city was being ended. As it turned out, glass had not been recycled through collection efforts since 2012, due to a decision by the management at the Marquette County Solid Waste Management Authority, although efforts were made to find ways to recycle "waste glass". The recycling of glass locally became cost-inefficient as regional markets for recycled glass have become less available.

On January 1, 2018 the landfill in Sands Township stopped accepting glass recyclables, and since then the Marquette City Commission has started looking into how to restart recycling glass again. There is potentially some state-level legislation that could bring money to local units of government that could be used to help pay for recycling programs. Recent data shows that only 20-percent of Marquette households recycle, while the national recycling average is about 35-percent.

New garbage and recycling carts introduced by the City in early 2018 may be one way that the recycling rate can be improved, but so far the carts have not been as sought-after as forecasted. Perhaps the low cost and convenience of the carts has not been emphasized enough. Carts aside, the statistics suggest that more effort is needed to increase the recycling rate in the city, as the landfilling of 80-percent of city waste is a tangible impact that can be reduced significantly.

Energy Production and Distribution

Marquette Energy Center

During the summer of 2017 a new, natural gas-fired power plant opened at the site of the BLP headquarters on Wright Street, powered by three 16.7 megawatt engines that were built in Italy, with a life expectancy of 50 years for the engines.
This $65 million-dollar investment serves the BLP's 225 square-mile territory that is fixed by law. There are roughly 16,500 BLP customers presently and 450 miles of power lines.



According to BLP Chairman Tom Tourville in 2017, homes use 550 to 1000 kilowatts (kW) of electricity per month typically, with the smaller number used locally as an average. The "Community Solar Garden" project is another facet of the new Energy Center, and it consists of 480 solar panels with a 25-year life span. Consumers may purchase panels, and those who do are credited with a set amount of energy production per kilowatt-hour from solar that is deducted from monthly bills.

The BLP previously had two main generating units - the coal-fired Shiras Steam Plant in the Lower Harbor, and a diesel combustion turbine backup system in north Marquette. During the summer of 2018 the Shiras Plant was taken off-line after using all coal on hand was burned, as it proved to be much costlier to operate as back-up power than to shutter, and the future use of the plant and property is now being considered by the BLP.

The "Grid" system is changing

Upper Michigan is included in the Mid-Continent electrical grid (referred to as MISO), one of several regional energy transmission organizations across the country. The grid was designed by Thomas Edison, but the distribution model of power plants is now considered inefficient, and that many U.S. companies are moving towards being powered completely by renewable energy sources, and it is now technologically possible to power all of the nation using renewable sources and no fossil fuels or nuclear energy. Atmospheric emissions from the U.S. power sector have declined approximately 18-percent since 2005, and energy conservation programs and codes have been effective in lowering demand for power. In recent times Calumet had the highest electricity prices in the lower-48, and regionally Marquette and Escanaba have had the lowest residential electricity rates.

There are twelve municipal utilities, four investor-owned utilities, and three rural electric co-ops in Upper Michigan. Recently, a freighter load of coal brought to Marquette cost $1.1 million, and annual aggregated energy bills in the U.P. exceed $300 million. Cliffs Natural Resources operations were in recent years using about 60-percent of the electrical load across the Upper Peninsula. Increasing energy costs have resulted in lower usage rates in the highest-cost areas, and those areas tend to have the most economically-vulnerable populations.

The creation of an energy plan for Upper Michigan was being studied by all fifteen county commissions in the U.P. in 2017, they were considering what could be done about the high energy costs, which don't just hurt our poorest residents, but which also are a deterrent to economic development.

In terms of further expansion of clean energy locally, Michigan Energy Options has identified the former city dump site and the former Cliffs-Dow site in Marquette as two "brownfield" sites that have good solar energy production potential, in a study that they completed in 2017. Brownfield sites that were identified have contaminated soils, are not suitable for many types of development, and probably have electrical lines nearby, so some of these are good candidates to be used for solar generation.

Cooperation between City and BLP

News about the Energy Center, including plans made to ship engines, came out shortly after this Master Plan was adopted in 2015, it had been kept secret for some time while studies were being conducted. Problematic for City staff, the BLP did not so much as coordinate the development of the new plant with City staff as to tell staff what was going to happen. In the future there should be much better co-operation between the two entities. In fact, the Planning Commission recommends that the City and BLP jointly explore the creation of a "community energy plan" to serve Marquette ratepayers.

Why have a Community Energy Plan?

The City and the BLP should be looking to the new technology that will come into place, which will impact where the BLP will be in 15-20 years, as well as impacting land use in the city. For example, as solar collection becomes more and more efficient housing being developed may need to include more open/green areas designated for solar panels, as well as neighborhood solar installations and other new technologies. Commercial buildings may need such considerations as well, and solar panels on roofs are not likely to be the end of the line for solar collection. Some property owners are interested in small-scale wind power, which is not as practical as solar, but needs some consideration – which has taken place with the Land Development Code project.

This may bring up questions for the BLP on how to assign rates, how to deal with both large entities and smaller system users who choose not to buy their power from the grid? If the BLP decides it wants to develop more solar garden sites the City will most likely need to be involved due to the land-use aspects, especially for municipal brownfield sites, so there is a need to establish dialogue between the Planning Commission, City Commission, and the planners and engineers at the BLP.

The community should be encouraged by the development of the Solar Garden project, not that it is scaled to be a major producer for the BLP, but that it is a pilot project that will provide learning in the process of operating it and then that will probably lead to developing other sites and projects such as a possible brownfield solar site.

In the absence of a community energy plan, to get things done efficiently the BLP should present ideas to the Planning Commission before they get started on a plan, so the proposals can be evaluated for land uses and zoning aspects, and incorporated into the Master Plan possibly, and especially to avoid something being built that can't be supported by municipal codes.

Presque Isle Power Plant

Located near the mouth of the Dead River adjacent to the Upper Harbor Ore Dock, and just to the south of Presque Isle Park, this coal-fired generating plant was built by the Cleveland-Cliffs Iron Company in 1955 and in recent years generated up to ninety-percent of the Upper Peninsula's electricity. The plant now is owned by Upper Michigan Energy Resources Corporation (UMERC) — a subsidiary of We Energies (Wisconsin Energy Corp./WEC). Half of the plants' generating capacity went to the nearby Tilden and Empire (now shuttered) iron ore mines just a few years ago, and a portion of the energy goes through the grid to Wisconsin.

The Presque Isle power plant is expected to be retired in May of 2019, after two gas-fired plants that are now under construction - one in Negaunee Township and one in

Baraga County - are brought online. This plant has been the largest taxable property for the City of Marquette, and the loss of the tax revenue from this plant is going to present significant challenges to City administrators and elected officials. On the positive side, this industrial site with two smokestacks of 400+ feet will be dismantled, removing an industrial landmark from the landscape.

Community Food Systems

The Marquette County Planning Commission has prepared a *Local Food Supply Plan*, a chapter of the *Marquette County Comprehensive Plan*, in recognition of a growing community interest in the topic. The *Local Food Supply Plan* is intended to be an educational tool and a mechanism to increase awareness as to how a strong local food system benefits our community. A strong local food system offers multiple benefits to the Marquette County community including, but not limited to, an improved local economy, health, access to fresh food, and food security. The Marquette County Local Food Supply Plan has the following vision and goals:

VISION: A vibrant local food system in which agriculture is a valued and viable occupation that enhances the local economy, improves the health of residents, and increases food security.

GOALS:

- The economy in Marquette County improves through the increase in local production, processing, and consumption of food
- The health of Marquette County residents improves through the increased access to, affordability and consumption of local foods
- The County has reduced its dependency on imported foods which are vulnerable to transportation costs
- Marquette County is an example to its citizens, and to other units of government, of how to use land to increase food supply

As well, the following is a report created by the UP Food Exchange policy committee, which the Planning Commission supports. The draft Land Development Code incorporates limited small animal husbandry in residential areas and limited urban agriculture in accordance with state laws, and provides new exceptions for temporary residential structures used for food production (e.g. hoop houses), in addition to other items that support this guidance.

Strengthening the Community Food System

This document defines the components of a community-based food system, lists types of policies and regulations that the City of Marquette can consider, and includes an implementation section to be used to guide policy, programming, and regulation development as they relate to food systems. The following offers a brief background of agriculture in the region.

The Central UP has a rich history of food production and consumption. Before early Europeans settled in the area, Native Americans harvested indigenous foods such as strawberries, blueberries, wild game, and fish. In the late 1800s, recruiting campaigns by railroad companies aimed to have farmers settle in the Upper Peninsula. Food

production as a way of life transitioned to industrialized farming. Potatoes were the most prominent crop produced in Marquette County's agricultural past. Today, there is a renaissance of smaller, diversified farms in the region and prevalent throughout the area is the interest in growing one's own food. It is common for food retailers, including some big box stores, to sell local produce.

In many aspects, Marquette is ahead of other municipalities in building resilience through the support of our local food growers. We are home to a food co-op that is passionate and determined to bring food growers and consumers together and to increase production. We have agencies and community groups working hard to educate our public about the importance of healthy food and how to grow your own food. Agencies and community groups are successfully increasing the opportunity to grow more food through establishing community gardens and hoop houses.

A Community-Based Food System Defined

According to the Michigan Good Food Charter,[1] a food system is all the people, processes and places involved with moving food from the seed the farmer plants to your dinner table, your local restaurant or the cafeteria lunch line.



In order for a community food system to be sustainable and add the most vitality possible for a community, it needs to integrate the seven components of Producing, Processing, Preparing, Distributing, Eating, Retailing, and Waste Management. The graphic at right depicts these seven components of a community food system on the inside of the circle and some of the community benefits of flourishing food system components on the outer ring.

Producing

The Marquette area and surrounding region are home to several food producers. For the purposes of this Plan, it is essential to realize that a large tract of land is not necessary to produce food. In fact, food can be produced on varying sizes of land, including a small urban lot. Food may be produced for family sustenance or for commercial purposes, and the operation may focus on a single crop or be highly diversified.

Processing and Preparing

For the most part, processing of food is required to take place at a licensed facility. The State of Michigan regulates such facilities in order to assure health and safety of the public. The Food Law, Public Act 92 of 2000, is an act to codify the licensure and regulation of certain persons engaged in processing, manufacturing, production, packing, preparing, repacking, canning, preserving, freezing, fabricating, storing, selling, serving, or offering for sale food or drink for human consumption.

Not all food processing is regulated by Michigan's Food Law. Individuals can process food for their personal consumption. The Michigan Cottage Food Law, Public Act 113 of

[1] http://www.michiganfood.org/

2010, also exempts non-potentially hazardous foods that do not require time and/or temperature control for safety to be produced in a home kitchen of the person's primary domestic residence. Direct sale to customers at farmers markets, farm markets, roadside stands, or other direct markets is permitted.

Distributing

Food distribution is the "middle man" between the processor and the consumer. Transportation, storage, restaurants, retail, and institutional facilities should all be considered as components of the distribution of food. Transportation costs are significantly lower when purchasing local food because local food does not have to travel many miles either through air or trucking to arrive to the point of purchase. The relative isolation of Marquette from conventional food producing areas in the state and country makes the benefits of strong community food system even greater. Local citizens and businesses stand to gain broader access to fresher foods and possibly at reduced cost if the local food system flourishes with less reliance on distribution of food from a distance.

Food Retailing

Food retailing includes the points of sale where food is made available for purchase by consumers. It includes grocery stores, restaurants, farmers markets, roadside stands, and even convenience stores. A robust community food system has food retailing that ensures access to food by all individuals in the community. Evidence shows that healthy food access continues to be a critical factor for improving both the physical and economic health and well-being of communities.

Food access is considered to be the foundation for the positive benefits associated with healthy foods, and without access to healthy foods, a nutritious diet and good health are out of reach. Research[2] shows:

- Accessing healthy food is still a challenge for many families, particularly those living in low-income neighborhoods, communities of color and rural areas.
- Living closer to healthy food retail is among the factors associated with better eating habits and decreased risk for obesity and diet-related diseases, such as diabetes and hypertension.
- Healthy food retail stimulates economic activity.

Eating

There are several platforms in which food is consumed. Locally-produced foods can be incorporated in all platforms of food consumption, although there is a varying degree of complexity to do so.

Household level

The household level is the easiest platform to incorporate locally grown foods. Either from a household garden or a nearby farm, it is not difficult to plan meals for the household size.

Restaurants and Food Trucks

Using locally-produced foods is a bit more challenging for restaurants and food trucks than it is for households, although there are several doing so in Marquette. Challenges

[2] "Access to Healthy Food and Why It Matters: A Review of the Research." *PolicyLink*. 2013. http://thefoodtrust.org/uploads/media_items/access-to-healthy-food.original.pdf

include the need to purchase large quantities of uniform and consistent product and the need to modify menu options in order to be in harmony with local food harvest schedules. Relying on product packaging and labeling to meet safety regulations is also a challenge.

Institutions

In the context of this Plan, institutions are locations preparing and serving food to many people on a routine basis. Examples of institutions include, but are not limited to, schools, hospitals, incarceration facilities, and senior care facilities. Institutions have the same challenges as restaurants only they are magnified. Generally, institutions serve a greater mass of people and therefore, require more product and have more regulation.

Public Events

Marquette is home to several annual festivals in which food and drink is served to thousands of people. These events provide an opportunity for vendors to use local products. The annual U.P. Beer fest is an excellent example of highlighting locally produced drink. In this case all breweries at the festival are from Michigan. Other events, such as the international food festival and the seafood festival, may have potential to incorporate locally grown ingredients.

Waste Management

Food consumption is not the last step in the food chain as many might think. It is estimated that approximately 60% of the trash brought to the Marquette County landfill is organic material which includes, paper, biodegradable materials and food waste.[3] By composting organic materials, the volume of area needed to store garbage can be substantially reduced prolonging the life of the landfill. In addition, composted organic matter can be added to soil improving the nutritional value in preparation for growing food.

Practices such as food rescue and gleaning, the act of recovering leftover produce, set to recover and redistribute food before it goes to waste. Restaurants and retail often have an excess amount of food. The food is simply thrown away if not gleaned. Although the food may not necessarily be produced locally, food recovery is part of the food system. Food banks and meal assistance programs are typically involved improving vulnerable population's access to healthy foods

Supporting Policies and Enabling Regulations

Policies

Local governments can incorporate policies that support the food system and increase food security in their guiding documents, such as internal policy documents and plans. Examples of internal government policy:

Agricultural practices as an Interim use of public land.

Governments often own vacant pieces of land that do not have immediate redevelopment potential. In this circumstance, the parcel may be a good candidate for

[3] Marquette County landfill paving the way for future of solid waste with one-of-a-kind wet process. Upper Peninsula's Second Wave. 11/25/12. http://up.secondwavemedia.com/features/landfill102010.aspx

an interim use. Governments can initiate a policy to allow for agricultural practices as an interim use of the land.

Edible landscaping.

Governments can consider implementing a policy requiring fruit, nut, or berry producing vegetation where appropriate.

Conversion of publicly owned manicured lawn into garden plots.

Fuel powered maintenance equipment is not needed to maintain a garden reducing the municipality's carbon footprint. The output is a quantity of healthy food compared to grass clippings.

Composting program.

Garden and grounds waste is compostable as is produce scraps from government employees. Rich organic matter is the result of the composting process which can then be used in garden areas. Fiscally, the government saves money by reducing the amount of garbage and the need to purchase fertilizer.

Regulations

In addition to policies that support community food systems, local government can amend regulations to enable components within the community food system to flourish.

Food Processing and Distribution Regulations.

Through regulation, governments affect the ability to process and distribute food. Zoning ordinances need to provide mechanisms for these processes. One method is to permit food processing uses in more districts. Community food processing centers and kitchen incubators are not commonly addressed in local zoning ordinances. Such facilities allow for the shared use of expensive food producing equipment. They are similar to business incubators, but have a focus on food production.

Another approach is to create a food innovation district. A food innovation district is a "geographic concentration of food-oriented businesses, services, and community activities that local governments support through planning and economic development initiatives in order to promote a positive business environment, spur regional food system development, and increase access to local food" (*Food Innovation Districts: An Economic Gardening Tool*, Cantrell et al., 2013, p. 2).[4] The goal of a food innovation district is to encourage interconnections within a cluster of food and food-related businesses to create jobs, increase the accessibility of healthy food options, and encourage a 'sense of place' within the region.

The district may include a food hub, defined by the USDA Regional Food Hub Resource Guide as a "business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand." FIDs and food hubs come in many shapes and sizes and could include invisible infrastructure and aggregations, such as improved communication, marketing,

[4] http://foodsystems.msu.edu/uploads/files/fid-guide.pdf

or access to expertise and resources. In Marquette, the Marquette Food Co-op is the food hub for the central UP as part of the Upper Peninsula Food Exchange (UPFE).[5]

Food Retail Regulations.

Zoning authorities can allow for the on-site sale of produce grown in home gardens and community gardens and the sale of local food in other districts, such as downtown business areas. Model communities are allowing this use by right or special use permit. Permitting food trucks or food mobile vending in all zoning districts is another way to promote local and healthy food consumption.

Food Producing Regulations

Regulations relating to food production must be in compliance with the Michigan Right to Farm Act (RTFA), PA 93 of 1981, as amended. The RTFA limits a local government's ability to adopt zoning regulations that apply to commercial agriculture activities, so long as those activities conform to Generally Accepted Agricultural and Management Practices (GAAMPs). In April 2014, the Site Selection GAAMP was amended to return zoning authority to local governments to regulate livestock facilities in 'primarily residential' areas. In effect, livestock facilities, regardless of size, must comply with local zoning in urban and higher-density suburban settings. Still, local governments have the ability to allow urban livestock and local plans and regulations should enable urban livestock to some degree as part of a flourishing community food system.

Examples of Regulation

Here is a glance at how some major urban areas in the nation have incorporated agricultural into urban environments.

Agriculture as a principal use on all vacant residentially zoned lots. Sale of produce from farm stands in residential districts as a conditional use. Permit the keeping of farm animals and bees through regulation in residential and non-residential areas. –Cleveland, OH

Farms on 1-5 acres (most districts) and allows agricultural products raised on these farms to be sold from site, subject to additional regulations. -Austin, TX

Large-scale farming as a permitted use in all residential and commercial districts on a 5-acre minimum lot by right - New Orleans, LA

Season Extension Structures. Hoop houses, row tunnels, and similar tools provide opportunities to extend the growing season. Also known as protective cultivation, there are several strategies to follow with this practice. Generally, cold tolerant plants can be grown in the fall and sometimes throughout the winter season. The frost-free date, or day that is recommended to sow seeds, is not as important when using season extension tools because the climate is somewhat moderated. Seeds can be sown earlier in the year.

Local government can exclude season extension structures from the definition of 'structure' in the zoning ordinance to allow such facilities 'by right' in all districts under a certain size. The idea is that these structures are more temporary in nature and do not need the level or review and permitting as other more permanent structures

Controlled Environment Agriculture

Controlled environment agriculture (CEA) takes season extension to a higher level and is a method of production that does not depend on existing climate conditions. CEA is a

[5] https://upfoodexchange.com/

combination of horticultural and engineering techniques that optimize crop production, crop quality, and production efficiency (Albright, 1990).[6] Controlled variables include temperature, light, humidity, pH, and nutrient analysis. Greenhouses, hydroponics, aquaculture and aquaponics are considered types of CEA. Although this type of production can be expensive, studies have suggested that the non-solar energy required to grow and transport fresh produce at least 1,000 miles is equivalent to the energy required for local production within CEA facilities in cold and cloudy climates such as the upper Midwest.[7] Additional benefits include high quality chemical free produce, do not require agricultural land, and opportunity for farms to diversify. Controlled Environment Agriculture structures could be allowed 'by right' in some districts, such as agriculture, industrial, and manufacturing districts and by special use permit in commercial and certain residential districts.

Types of Hoop Houses-
High Tunnel- unheated, plastic-covered structures that provide an intermediate level of environmental protection and control compared to open field conditions and heated greenhouses. High tunnels are tall enough to walk in and grow trellised crops. Dimensions typically range from 14-30 feet wide by 30-96 feet long.
Low Tunnels- like high tunnels only they are not tall enough to stand in and cannot be used to produce some crops.
Controlled Environment Agriculture-
Greenhouse- Structural building with glass or plastic walls and roof that is heated by solar radiation and sometimes additional heating sources.
Hydroponics- A method of growing plants using mineral nutrient solutions in water without soil. Terrestrial plants may be grown with their roots in the mineral nutrient solution only or in an inert medium.
Aquaculture- The farming of aquatic organisms such as fish, crustaceans, mollusks, and aquatic plants under controlled conditions.
Aquaponics- Food production that combines aquaculture with hydroponics in a symbiotic environment. By-products from aquaculture are filtered out by plants as vital nutrients and cleansed water is circulated back into the aquaculture system.

Chickens

There is a misconception that the keeping of chickens will create a nuisance. Common concerns include smell, noise, attraction of predators, cleanliness and sanitation. In actuality, domestic pets that are permitted in neighborhoods have the ability to create more nuisance than fowls. Unlike domestic pets, chickens increase food security by producing food. They have an important role in the life cycle of food as they eat food scraps, produce food, and their waste can be used to fertilize soil.

Small and Medium Sized Livestock

Beyond poultry, livestock species such as rabbits, sheep, goats and pigs are considered small to medium farm animals that can coexist in an urban or suburban setting with appropriate regulations. Cities, such as Seattle, WA and Cleveland, OH permit the raising of livestock within city limits.

Bees

[6] Cornell University Biological and Environmental Engineering. www.cornellcea.com/about_CEA.htm
[7] Cornell University Biological and Environmental Engineering. www.cornellcea.com/about_CEA.htm

There is a growing interest in beekeeping as an important component of food production. While food products from bees are part of a community food system, perhaps more important is the role that bees play in pollinating many different types of crops. In fact, a strong local food system depends heavily on the presence of bees to pollinate fruit and vegetable gardens and agriculture. Local government regulations should permit the establishment of bee colonies in many zoning districts with appropriate regulations such as colony size, colony density per property, setbacks, and flyway barriers.

Implementation

Strengthening the community food system in the greater Marquette area will require vision and commitment to implement a variety of policies and regulatory tools.

Vision

Marquette will have a vibrant community food system where all food system components flourish in ways that enhance the local economy, improves the health of residents, and increases the food security of the community.

Goals

- The local economy improves through the increase in local production, processing, and consumption of food.
- The health of residents improves through the increased access to, affordability and consumption of local foods.
- Reduced dependency on imported foods.
- Marquette is an example of how to use land and policy to increase food supply.
- Conserve, protect, enhance, and restore our local agriculture and aquaculture resources.
- The city is made up of desirable and safe neighborhoods that are near quality schools, attractive open spaces, and have access to fresh food.
- Imagine the city as a regional hub for fresh and locally grown produce, where a thriving movement of entrepreneurial growers in the region provide healthy foods to schools, farmers markets, restaurants, and stores throughout the city and community gardens and backyard gardens help sustain our residents.

Objectives

Producing

- Allow season extension structures in residential neighborhoods with minor plan review to support the growing of produce by city residents.
- Allow backyard poultry for personal use in residential neighborhoods subject to reasonable standards and minor plan review.
- Encourage zoning regulations to permit small scale agricultural activities in residential areas including food retail.
- Conduct a land inventory of property within the city suitable for medium and large scale agriculture.
- Support the establishment of community gardens that are accessible to all.
- Identify public-owned lands with potential for garden plots.
- Explore ways to incentivize or require designated garden space in affordable housing developments.

Processing and Preparing

- Review the intent and lists of permitted and special land uses in commercial zoning districts for opportunities to add small food processors as allowable uses where appropriate.
- Identify licensed commercial kitchens that could be rented to food entrepreneurs.

Distributing

- Connect producers and consumers through expanded market opportunities.
- Encourage partnerships between local food producers and institutions, such as schools, hospitals, prisons, and elder care.

Retailing

- Tailor food truck regulations to improve food access by allowing operation at various times and locations throughout the city.

Eating

- Support educational opportunities that teach the importance of the local food system.
- Develop a plant purchasing policy that encourages the purchase and installation of food producing plants on city property where feasible.

Waste Management

- Support activities relating to food waste recovery such as composting programs and gleaning.

RECOMMENDATIONS

As stated on p.J-1, there are several major topics that were examined by the Planning Commission and staff in order to provide a comprehensive but concise update of activities in the City of Marquette since the Community Master Plan was significantly reconstituted during 2012-2015, and then adopted in August of 2015. Several recommendations follow from the analysis of the issues that were considered.

Demographics

- The City should continue to plan for a large and growing number of residents of retirement age, which will have effects on the local economy (workforce and spending), existing and desired services (e.g. EMT calls and transit expansion), and housing.

Transportation

- Develop a system of marked bicycle routes across the City, and integrate those routes with the extensive paved path network.

- A study for land and transportation development in the Lakeshore Boulevard corridor, between Elwood Mattson Park and Presque Isle, should be commissioned as soon as resources are available.

- Continue working with Marq-Tran to complete the Coordinated Human Services Transit Plan, and do whatever is possible to create regular and efficient public transportation with the City. See pp. J-8 to J-12 for more information.

Housing

- Maintain a cap of 250 approved applications for short-term rentals, and monitor housing availability ….
- A City Policy to address housing affordability should be developed by a special committee appointed to accomplish that necessary guidance.

Planning and Zoning

- Adopting this update to the CMP includes the adoption of the Future Land Use Map (FLUM, p.3-14) and Proposed Zoning Map (PZM, p.3-24), which are the two most important pages of the Community Master Plan. These maps were updated in 2015 with significant changes to the same maps from the previous CMP (see pp.3-7 to 3-24 for detailed information), including the creation of new zoning districts and the recommendation for zoning changes to many parcels in the city to better reflect the way those parcels are being used. The FLUM and PZM are the basis for rezoning decisions that the City must determine when applications are made and are the basis for zoning and form-based code districts that will be implemented with the adoption of the Land Development Code.
- The City of Marquette and other property owners should consider dividing large parcels of land prior to selling into smaller parcels, which should result in a greater diversity and resiliency in ownership, lower the cost of entry to develop the property and create a more varied cityscape of a walkable, human scale. The closer the land is to the urban core the more this should be a priority to do this, but even parcels outside of the urban core may be more valuable to subdivide and sell as smaller parcels. See p. J-12 for more information.
- Updates to the CMP should proactively consider the option identification of appropriate nodes for the development of "corner stores" or neighborhood groceries, via the designation of such a parcel as a Neighborhood Commercial on the FLUM and as a Mixed-Use (MU) zoning district on the Proposed Zoning Map.

Land Development Code Project

- The Land Development Code represents an opportunity for Marquette to adopt contemporary standards for zoning, sign regulation, subdivision and other land division, and should be adopted in calendar year 2018 if possible. The project is on track to be adopted during the late fall of 2018.

Energy Production and Distribution

- The City and the BLP should work together to develop a community-driven energy plan for the City of Marquette's ratepayers.

Environment

- Work to find a way to recycle "waste glass" and also improve the low rate of 20% of waste materials recycled and diverted from the county landfill.

Food Systems

- The Upper Peninsula is a region that is highly dependent upon other areas for food. To maximize the resilience of the region the goals and objectives of the U.P. Food Exchange Food Policy Committee recommendations and Marquette County's Local Food Plan should be followed.

Review of Previous Recommendations

Finally, the Planning Commission would like to provide an analysis of the table of recommendations provided in Chapter 2 for the period of this Community Master Plan, in terms of what has been accomplished, what has been started (in loose terms), and for what has not been started. Table J-1 that follows on the next several pages provides a "current status" column to update the community on these recommendations made in Table 2.2 of this document.

It should be understood that many of these recommendations are made for the benefit of the community at large and some may only be implemented by entities separate from City government or in partnership between various entities.

Table J-1: Update to Recommendations Table 2.2

Recommendation Topic	Summary Description	Action Category 1=Immediate (0-2 years) 2=Short-Term (3-5 years) 3=Long Term (5+ years)	Current Status Sept. 2018
Demographics and Housing			
Increase housing availability	Facilitate and "incentivize" the development of housing near downtown, as well as more working-class housing options.	2	In Progress via LDC
Increase transportation options and accessibility of network	Develop more transit services and facilities; expand non-motorized transportation options; and emphasize universal access.	1	In Progress
Economic development planning inclusive of senior citizens	Include senior citizens in economic development planning, as they will be a more significant portion of entrepreneurs going forward.	2	Not Started
Public safety focus on seniors	Enhance attention to senior citizens in public safety work. Public safety - promote community safety organizations.	2	Unknown
Continue/expand programming for seniors	Continue and possibly expand multi-generation community facilities and civically-sponsored programs.	2	In Progress
Rental inspection program amendment for parking areas	Revise rental inspection application/process to require that zoning standards for hard surface parking areas be a required element for approval.	3	Completed
Code enforcement for property maintenance	Continue code enforcement for property maintenance and improve on ordinances.	2	In Progress
Neighborhood associations	Provide technical support in the establishment of Neighborhood Associations.	2	Not Requested
Student housing	Increase on-campus student housing.	3	Completed
Green housing	Encourage the construction of sustainable, energy-efficient homes/buildings.	2	In Progress
Housing options	Encourage a diversity of new housing options.	1	In Progress
Infill development incentives	Create incentives for the development of affordable, sustainable, infill housing projects, as alternatives to "greenfield" development.	2	Not Started
Historic districts	Support the creation of historic overlay districts.	2	Not Started
Preservation easements	Assist with education regarding Preservation Easements.	2	Not Started
Placemaking	Engage in Placemaking activities that support neighborhoods.	1	In Progress
Economic Development			
Transportation			
Street Design Guidelines	Continue to use and refine design guidelines for all the major types of roadways within the city (including specifications for configuration of travel lanes, reduction in lane width and lanes wherever feasible, incorporation of on-street parking, and the enhancement of existing intersection signals and controls).	2	In Progress
Snow Management	Re-evaluate snow management procedures, to include hosting an annual Snow Summit, performing cost analysis for center-push vs side push plowing and snow removal activities, re-evaluating the ordinance requiring sidewalk snow removal, and consideration for the creative use of removed snow.	2	Not Started
Raise and move Lakeshore Blvd.	Raise Lakeshore Boulevard and move it inland, and armor the shore to protect the road, as outlined in the Lakeshore Boulevard and Lake Superior Restoration Project final recommendations that were completed in early 2014.	1	In Progress via grant seeking
Kaye-Fair connection	Extend Kaye Avenue to connect with Fair Avenue.	2	Not Started
Division St. extension	Extend Division St. – The extension of Division St. west into Marquette Township would provide a future east-west	3	Not Started
Truck routes	Specific truck routes should be designated to route traffic along the major collectors, such as Wright St. and McClellan Ave., rather than through residential areas.	1	Completed

Walkability improvements	Continue improving walkability Upgrade intersection facilities (crosswalks, curb ramps, walk signals), add sidewalks, and expand bicycle facilities.	1	In Progress
Urban transit service	Improve transit service in the City, by: 1) Staying involved with the planning process outlined for the creation of a MarqTran *Human Service Coordination Plan* ; 2) focusing on public transportation and mobility management in community planning, decision-making and marketing; 3) by facilitating partnerships between institutions that utilize transit services, to creatively employ underutilized transit resources throughout the community.	1	In Progress
Neighborhood-scale planning	Support neighborhood involvement and planning in transportation decisions.	2	In Progress
Regional transportation improvements	To improve regional transportation:	2	
	1) Support research into the redevelopment of railroad and intermodal/rail facilities in Marquette County and across the Upper Peninsula, such as that which has been undertaken recently by Dr. Pasi Lautala of Michigan Tech. University.; 2) Support the implementation of a Customs Office in Marquette, to allow the port facilities to be upgraded to handle larger Great Lakes cruise ships and more diverse cargo; 3) Support efforts to improve the economic sustainability of the Sawyer International Airport.		1 and 2-Not Started 3-In Progress
Community Services			
"Green" municipal facilities and operations	The City of Marquette should demonstrate "green" leadership in facilities operations, choosing options that are environmentally sound and otherwise sustainable, from materials recycling, to vehicle fleet management, to decisions regarding construction and re-construction.	2	In Progress
Sidewalks and Paths	Funds should continue to be set aside, and areas near schools should be prioritized, to facilitate sidewalk and bike path maintenance and extensions. Seek *Safe Routes to Schools* funding for further enhancements to the pedestrian and bicycle network.	1	In Progress
	A robust program of winter maintenance to keep pedestrian networks open is vital to a healthy, prosperous community.		In Progress
Winter Focus	Decisions that affect municipal facilities and amenities should only be made with full consideration of winter, in order to maximize the quality of life and economic impacts of those decisions. Events and activities that help residents get outside	2	In Progress
Heartwood Forestland	Much of the NTN's South Trails network is on land that was part of the Heartwood Forestland property acquisition, and the disposition of this municipally-owned property in S. Marquette should be formally established by the adoption of a "sub-area plan" for use and management of the property, in order to guide future investment in the trails network.	2	Not Started
Lower Harbor Ore Dock	If there are viable productive uses for the structure, the City should engage the public in visioning for of a broad spectrum of possible future uses, including as a public dock for large and small watercraft , and the "Botanical-Ecological Center" idea	1	In Progress

Natural Environment			
Riparian Buffer Ordinance	The development of an ordinance to control stormwater runoff and sedimentation into streams by the use of riparian buffer zones is needed, as there are several streams in the City that collect stormwater runoff and drain into Lake Superior.	2	In Progress via LDC
Watershed Residential Zoning	In order to help balance the need for new development with the need for resource protection, the Master Plan promotes the use of a new residential zoning designation called "Watershed Residential". This type of residential land use is particularly relevant in the southern portion of the City where new development pressures threaten to degrade the existing natural resources. The regulation of development in these	2	In Progress via LDC
Heartwood Forestland	The City should, with maximum expediency, undertake and complete a formal determination process for land uses and conservation priorities for the former Heartwood Forestland property.	2	Not Started
Alternative Energy Production Systems	The City should create land development ordinance provisions to permit the use of alternative energy production systems within the city limits, for both small residential and commercial applications, as well as larger systems for industrial	2	In Progress via LDC
Sustainability and Systems Analysis	Environmental sustainability regards the preservation or protection of natural resources and or ecosystems, and considers who or what the circumstances are sustainable for. Thinking and acting with economic, social, and environmental concerns all taken into consideration is a responsible foundation for decision making relevant to sustainability that should be further developed into a practice for outcomes that result in the actual sustainability of our environmental assets.	2	Not Started
Waterfront Activity			
Utilize *Smart Growth Coastal and Waterfront Elements*	Smart Growth fosters sustainable land use and development, and provides guidance for communities to grow in ways that are compatible with their natural assets, creating high-quality places for residents, visitors, and businesses.	2	In Progress
Establish Innovative Zoning Districts	Where conventional, use-based zoning is not conducive to meeting the community vision for a walkable, well-connected waterfront and downtown, it may be necessary to amend a zoning ordinance. Establishing/expanding form-based code districts that regulate structure, design, and form over land use provides greater flexibility with regard to creating a pedestrian-oriented, mixed use waterfront district that protect view-sheds, waterfront uses, public access, and water resources.	1	In Progress
Regulate Land Use along Waterfront Roads	Permitting private development on the inland side and public use on the water side of a road, to maintain viewsheds and retain access to the waterfront.	1	In Progress
Engage Community in Planning and Visioning	Engaging the community and getting citizens and professionals together can lead to an effective waterfront visioning and strategic planning process.	2	Not Started
Utilize *Placemaking*	Capitalize on the economic value of "placemaking" - planning, designing and managing public spaces to meet the needs and desires of residents and visitors and establish a common vision - to increase both private development and public access to the waterfront, as well as to create a more walkable downtown that	2	In Progress
Acquire Coast Guard Light House Reserve	The City should continue to pursue transfer of this property from the federal government to municipal control, provided ongoing environmental assessments of the property reveal no significant	2	Completed

Public Health			
Built Environment	Apply smart growth principles to decisions related to land development and planning, in order to increase physical activity via active transportation (walking and biking between destinations). The following tenets of smart growth indirectly address health via supporting a robust built environment:	1	In Progress
Smart Growth	Mix land uses; take advatage of compact building design; strengthen and direct development towards existing communities; and foster distinctive, attractive communities with a strong sense of place.		
Encourage development in urbanized areas	Create/maintain incentives for new development/re-development in developed areas, including tax- increment financing and assistance with tax abatement program applications.	2	In Progress
Follow Complete Streets Guidance	City staff should develop all street rehabilitation and reconstruction plans following the Complete Streets Policy and Guiding Principles that were adopted as a resolution by the City in 2011.	2	In Progress
Routes and Wayfinding	Develop a comprehensive network of on-street bicycle and pedestrian facilities connected to the multiuse path system, including easily-identified wayfinding guidance (signs and markers), to connect our neighborhoods to schools, parks,	2	In Progress
Safe Routes to School	Coordinate with schools for SR2S grant funds, and otherwise prioritize walking and biking to and from schools.	1	Not Started
Open/Green Spaces	Promote existing community parks, beaches, paths, forests, etc., by:	2	In Progress
	Raising awareness about ways to enjoy the outdoors all year round, as the Arts and Culture Center raises awareness about art in the community.		
	Supporting efforts to provide exercise facilities within many public parks.		
	Ensuring public property has plentiful tree canopy to create attractive, shaded space that is inviting to the public and ecologically valuable.		
Planning and Policy	Integrate land-use, transportation, community design and economic development planning with public health planning to increase active transportation and other physical activity.	2	Not Started
Community Food Systems	Craft and/or amending guiding and regulatory documents so the community can support the strengthening of the local food system, after evaluating existing policies and regulations for obstacles to that support:	2	
Amend Guidance and/or Regulation	Support urban food production through home gardens, community gardens, and land uses allowing for urban		In Progress
	Develop policies/ordinances that could allow the interim use of public land for gardens, agricultural practices, or to be landscaped with edible vegetation.		Not Started
	Create more opportunities for access to healthy foods, by allowing temporary sales of garden produce in residential areas; through expanded land uses for small food retail stores; and by improved transit.		In Progress
	Provide adequate open space for neighborhood vegetable gardens.		Not Started
	Support routine consideration of health in public decision-making by embracing a "Health in All Policies" approach to “embedding” or “institutionalizing” health policy within existing and new structures and processes of government.		Not Started
Resource Preservation and Protection	Take advantage of opportunities to collaborate with public, private, and nonprofit entities to preserve agricultural and environmental resources and protect ecologically critical and fragile areas.	1	In Progress

Arts and Culture			
Economic Development Planning	Consult the Arts and Culture Master Plan regarding questions or concerns about relevant issues. Reference to A&C Master Plan	2	In Progress
Heritage			
Interpretation	Interpretation of our heritage assets should be a high priority for the City and DDA.	2	In Progress
Historic Preservation	See Ch.12 for historic preservation recommendations (p.12-17).	2	