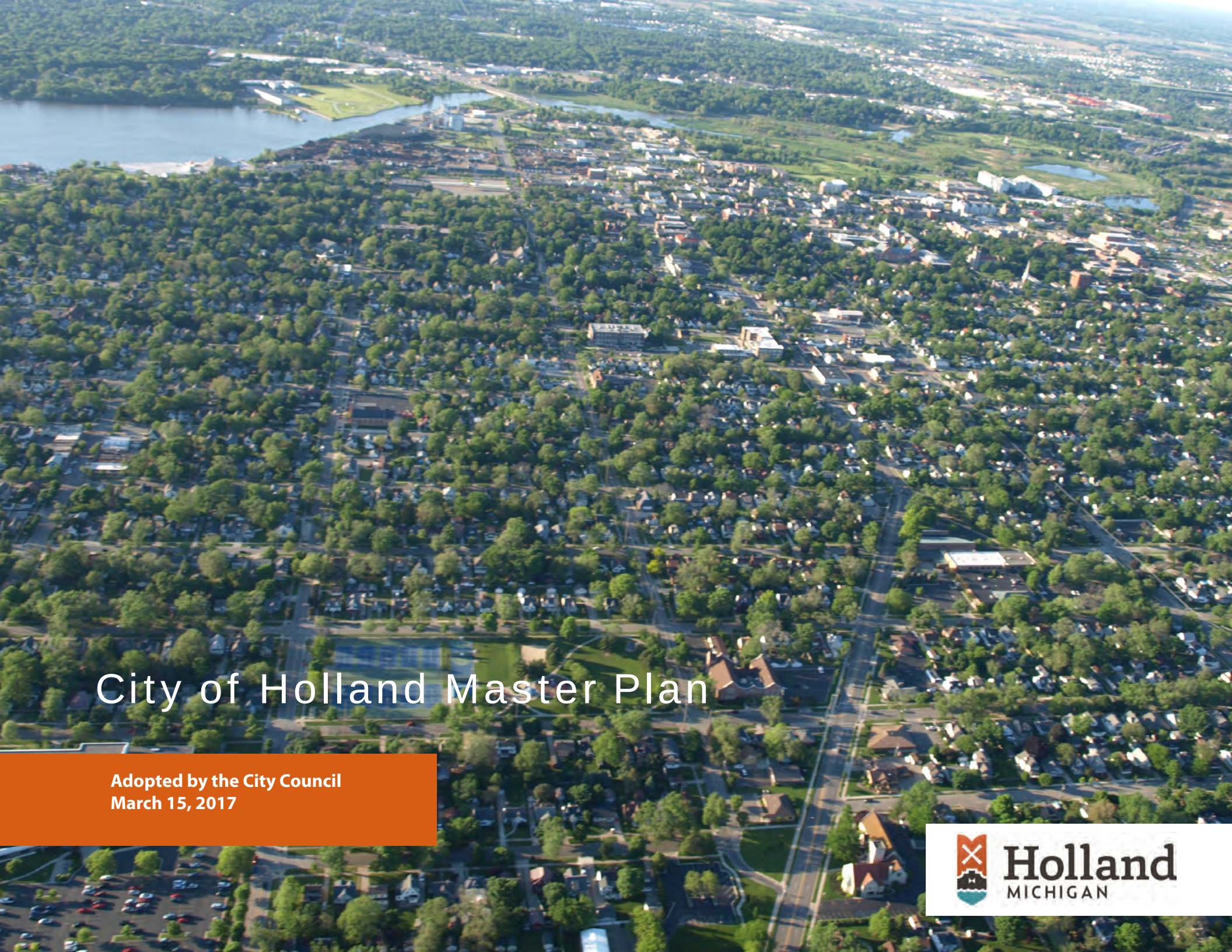

City of Holland Master Plan

Adopted by the City Council
March 15, 2017

Holland
MICHIGAN

ACKNOWLEDGMENTS

This Plan was prepared by the Land Information Access Association (LIAA) as part of the Resilient Holland project. Support for the project came from the Michigan Municipal League (MML), Michigan Association of Planning (MAP), and the University of Michigan's Taubman College of Architecture and Urban Planning. A special thank you is owed to the many organizations and individuals that contributed to the planning process.

The Resilient Holland project was funded in part by the City of Holland, the Michigan Coastal Zone Management Program, Department of Environmental Quality, Office of the Great Lakes; and the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Holland MICHIGAN

LIAA
Innovative ideas for sustainable communities since 1993

DEQ

OGL
MICHIGAN OFFICE OF THE GREAT LAKES

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Nancy Gillis, Office of Community and Neighborhood Services

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How to Read this Plan

This document was intentionally created in such a manner that it offers broad guidance on how the City of Holland should approach development and growth. While other city plans are more specific about certain types of development on certain streets, or certain improvements to certain parks, this Plan shall serve as a foundational policy document guiding the development of other city plans and initiatives.

MAPS

FOREWORD

Over the past eighteen months, the City of Holland Planning Commission, with the assistance of the Land Information Access Association of Traverse City, MI, engaged over 1,000 people in 40 meetings and on-the-street interviews to create the following 2017 City of Holland Master Plan. This Plan is the official policy guide for Holland's future development and growth. This Plan summarizes the community's vision, goals and objectives to create a framework and basis for sound community development and land use decision-making to ensure that Holland is a resilient city.

The **guiding principle** of this Master Plan is **"Inviting all to enjoy a thriving and resilient Holland."** Inviting all to enjoy reinforces our community's approach to have all neighbors involved in the community planning process, as well as recognizing and appreciating the rich diversity that makes up the City of Holland. Ensuring a thriving Holland emphasizes our heritage of unique, interesting places and cultural pride, and directs the city to continue to be intentional in creating places that are of high quality, connected, and vibrant. A resilient Holland recognizes our place in this region and world, and our ongoing commitment to produce public policies that strengthen our economy, protect our environment, and serve as a foundation for the city to quickly respond and react to continuous change.

Plan Presentation

This Plan includes five chapters spread out over approximately 170 pages. This document was intentionally created in such a manner that it offers broad guidance on how the City of Holland should approach development and growth. While other city plans are more specific about certain types of development on certain streets, or certain improvements to certain parks, this Plan shall serve as a foundational policy document guiding the development of other city plans and initiatives.

Key Highlights

Chapter 3 serves as a snapshot of our community's **Existing Land Use, Natural Features, Regional Climate Trends,** and **Socio-Economic Characteristics**. It is important for the reader to know that the data presented in this plan is just that, data. This plan does not attempt to analyze or jump to conclusions about what this data represents. This data is presented to give a snapshot of Holland's composition and serve as a resource for further study and analysis.

Chapter 4 identifies an **overarching goal** for nine different action areas that are important to Holland's future development. These include:

- Environment: The City of Holland's Natural Environment will be clean and accessible.
- Transportation: The City of Holland will have a safe, connected transportation system that serves multiple modes.
- Public Services: The City of Holland's public services will be high quality, efficient, and cost effective.
- Parks and Recreation: The City of Holland will have visually appealing, year-round, and diverse activities and spaces that are accessible and connected for all people.
- Housing: The City of Holland's housing stock will be energy efficient, well-maintained, and include various designs.
- Urban Design: The City of Holland's neighborhoods will be aesthetically pleasing, tree-lined, walkable, and mixed-use with recognizable development patterns.
- Food and Agriculture: The City of Holland will have locally-sourced, fresh foods accessible to all residents and businesses.
- Economy: The City of Holland's economy will consist of diverse industries based on technology and design that attract and retain talent and are fueled by a strong entrepreneurial spirit.
- Social Services and Community Health: The City of Holland will foster a safe and healthy community for all residents.

Chapter 5 identifies specific future development patterns for the City through three major plans to help policy makers review and guide future development in the city: the Strategic Land Development Area Plan Map, the Future Land Use Plan Map and the Zoning Plan.

The **Strategic Land Development Area Plan Map** is a broad-stroked plan developed to enhance the specificity of the Future Land Use Plan Map. The Strategic Land Development Area Plan Map sets forth parts of the city where development patterns are to be preserved or altered. The Strategic Land Development Area Plan Map also makes general recommendations for how building form and site design can be addressed in the Zoning Ordinance.

The **Future Land Use Plan Map** describes a generalized preferred organization of future land uses in the City of Holland. The development of the Future Land Use Plan Map considered existing land use patterns, public input, desired community character and potential impacts on natural features. The Future Land Use Plan Map is comprised of twenty-one (21) Planning Districts in five broad categories. The Planning Districts include:

1. Airport Business District
2. Business Development Area
3. Research and Development
4. Industrial
5. Neighborhood Commercial
6. Arterial Commercial
7. Highway Commercial
8. Marketplace Commercial
9. Mixed-Use Village
10. Central Downtown
11. Northern Downtown
12. Waterfront Downtown
13. Urban Residential
14. Suburban Residential
15. Neo-Traditional Residential
16. Apartment Residential
17. Mobile Home Residential
18. Essential Services Area
19. Regional Park
20. Environmental Services Area
21. College Campus District

In each of the categories described above, associated text can be found in the Plan that more clearly explains preferred uses within each category. Through these districts, the reader will see opportunities for greater flexibility in allowing more mixed-use development and a more urban-type density of infill along major thoroughfares in the City.

The **Zoning Plan**, a requirement of Michigan Planning Enabling Act, inventories existing zoning districts in the City of Holland. It is in this section that the Plan recommends changes to our existing zoning ordinance and introduces the idea of the City of Holland looking at the creation of a Form-Based Code.

Eighteen months ago, the City of Holland, through its Planning Commission and City, set out to create a holistic Master Plan. This 2017 Master Plan replaces the 1992 Master Plan for the General Development of the City of Holland.

This 2017 City of Holland Master Plan is a general plan intended to provide a foundation to policy makers as they review and approve future development throughout the City of Holland. Existing plans listed on pages 15 through 17 still include important implications and in part are still relevant to the future development of the city. However, it is this 2017 City of Holland Master Plan that is the primary policy document when it comes to the future development of the City of Holland.

Thank you for your interest in the future growth and development of the City of Holland and happy reading!

Brooke Anderson
Chair
City of Holland Planning Commission

CHAPTER 1. INTRODUCTION

The City of Holland Master Plan is the official policy guide for Holland's future development and growth. The Master Plan summarizes the community's vision for the City, highlights goals and objectives based on an analysis of strengths and weakness, and provides the framework and basis for sound community development and land use decision making. Overall, the City of Holland Master Plan establishes clear direction and expectations for the City and meets the requirements established by the Michigan Planning Enabling Act of 2008.

Purposes and Uses of the Master Plan

- Identifies existing conditions and characteristics, community values, issues, and opportunities.
- Guides property owners, developers, neighboring jurisdictions, and county and state entities with expectations and standards for public investment and future development.
- Supports the allocation and spending of funds.
- Establishes the basis for the zoning ordinance, capital improvements, land use policies, and other implementation tools and programs.
- Provides the framework for planning and land use policy decisions made by City Council, the Planning Commission, and City staff.
- Offers a foundation for creative problem solving and adapting to change – in other words, building a resilient community.
- Builds partnerships between residents, community stakeholder groups, non-profit organizations, neighboring communities, and county and regional entities to participate in implementing the plan.

The Master Plan is a flexible document that guides development within the City, but provides capacity to adapt to changing conditions and innovation. The Master Plan describes where new development should be directed and also identifies existing conditions, goals, and best management practices for a number of focus areas including the local economy, natural and cultural resources, transportation networks, recreational amenities, health and social services, neighborhoods, urban design standards, and local food.

The City of Holland Master Plan was developed with engaging and comprehensive public input. This engagement process, along with conversations with City staff and Planning Commission members, resulted in several guiding principles for the future of Holland.

The guiding principles underlying each chapter of the Master Plan are summarized in a single sentence: *Inviting all to enjoy a thriving and resilient Holland.* By looking at the future with the goal of resiliency, the whole community is working together to foster unique Holland experiences in dynamic, vibrant places.

Children playing in Kollen Park, 2011.

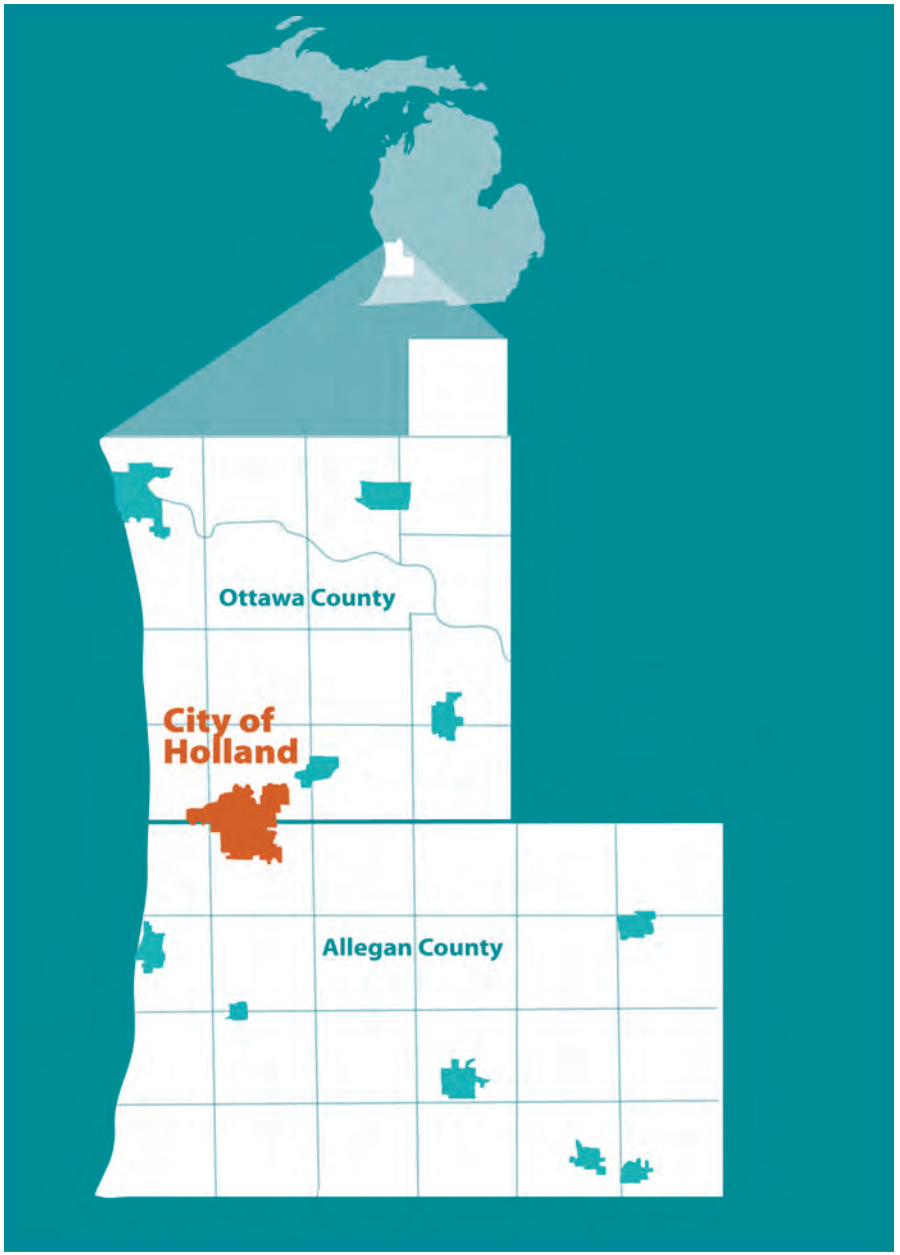
HOLLAND'S LOCATION

The City of Holland straddles Ottawa and Allegan counties on the western edge of Michigan's Lower Peninsula. The City is adjacent to Lake Macatawa, just east of the Lake Michigan shore. Holland currently supports a variety of industries and businesses, is well connected to the rest of the state and region, and is home to Hope College. The City's vibrant, historic downtown is a shopping and entertainment destination for residents and visitors alike.

The Resilient Holland Planning Process

In the spring of 2015, the City of Holland began a community-wide planning process called Resilient Holland. Through this planning effort, the citizens and leaders of the Holland community worked together to address shared issues and identify ways to manage changes and challenges of all kinds. This Master Plan is based on the input received during the Resilient Holland project and relevant recommendations from past planning efforts within the City. The City of Holland Planning Commission and City staff oversaw the planning process, considered recommendations created during the project, and guided the creation of the Master Plan.

Over the course of the Resilient Holland project, the Land Information Access Association (LIAA), conducted a wide variety of civic engagement activities including public input sessions, educational gatherings, and community workshops. These events are summarized on the timeline in this chapter. The events provided citizens, stakeholders, and public officials opportunities to identify important community issues and generate a shared vision for Holland's future. The following pages describe the civic engagement process that occurred during the Resilient Holland project.



Guiding Principles

The planning process fostered many ideas and conversations about the vision for Holland's future and the issues facing Holland today. During the planning process, these ideas coalesced into three guiding principles that shaped the Master Plan and help describe the future of Holland.

These guiding principles emerged from an iterative planning process that involved the public, Holland City staff and Planning Commission members, and the consultant team from LIAA. The guiding principles, shown on this page, each have an icon that will reappear throughout the Plan with case studies and other information.

Inviting all to enjoy a thriving and resilient Holland.

Inviting all to enjoy...

This guiding principle speaks to Holland's community approach, where every neighbor is welcomed and accepted into government processes. From a thriving Hispanic culture to a college-town experience for students, Holland has something to offer for everyone. This invitation extends beyond Holland's boundaries, incorporating regional efforts to move the West Michigan region forward.

a thriving...

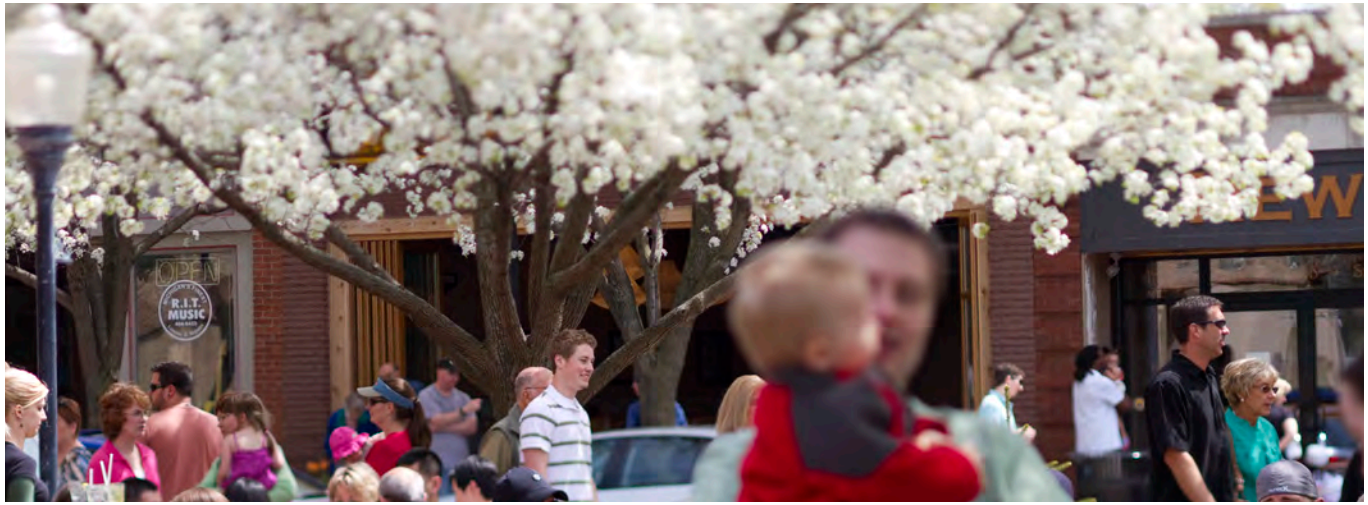
This guiding principle emphasizes Holland's heritage of unique, interesting places and cultural pride. A thriving Holland has carefully chosen, high-quality standards for future development, a connected and vibrant downtown, and vital neighborhoods. This guiding principle encompasses themes of walkability, placemaking, and building typologies that will be discussed throughout the plan.

and resilient Holland.

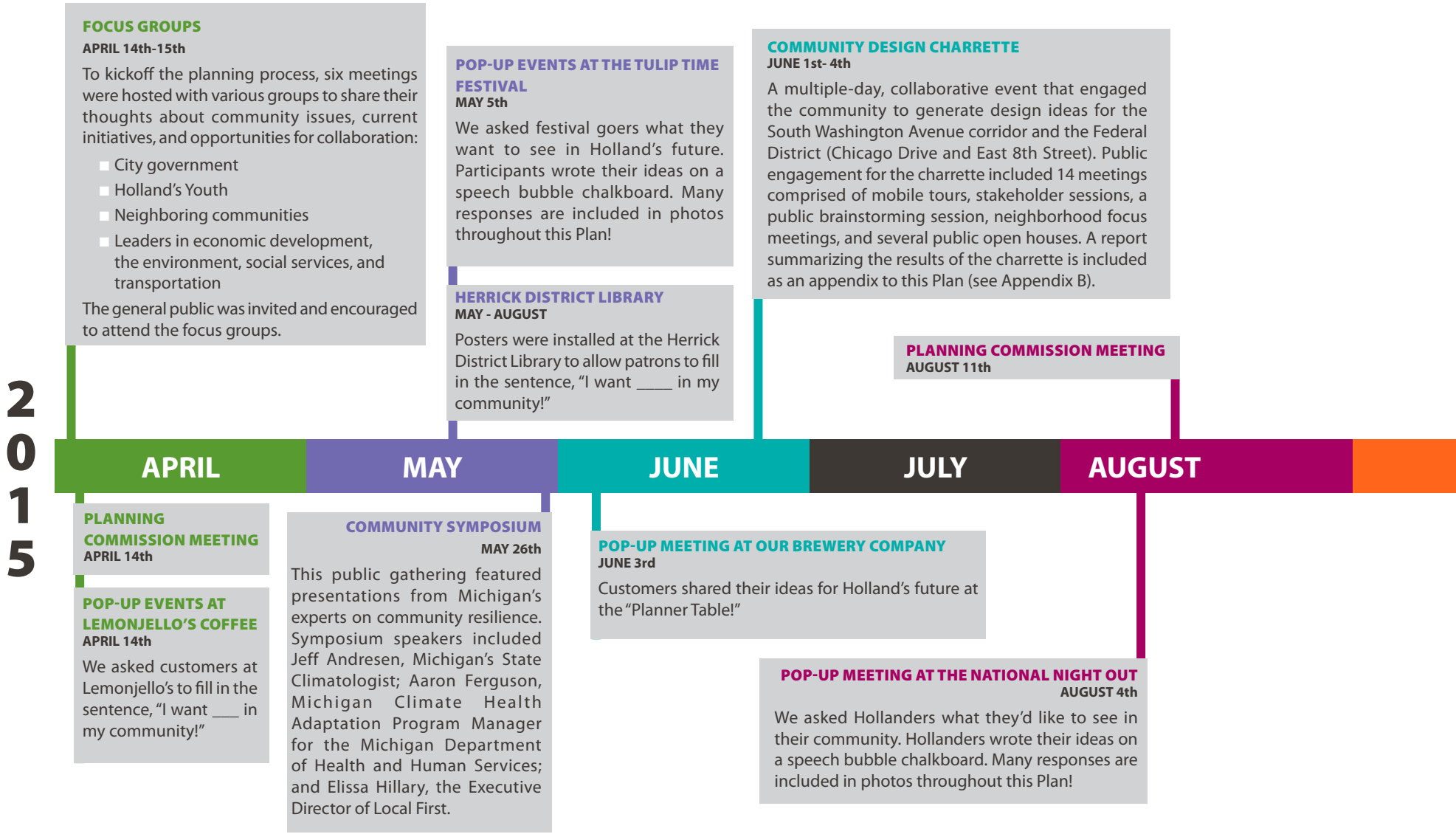
This guiding principle ties resiliency to many aspects of Holland. Lake Macatawa and Holland's proximity to the "big lake," Lake Michigan, are invaluable resources that provide an abundance of amenities. This also has implications for Holland, a coastal community, as the climate continues to change and development pressure increases.

Additionally, as Michigan as a whole evolves from a manufacturing-based economy into something new, Holland must prepare by becoming a resilient, shock-proof economy and welcoming businesses of all kinds.

By ensuring its economic portfolio and environmental strategies are diverse, a forward-facing Holland can react and adapt to changes in the global or national economy and prepare for changes in climate over the long term.



Timeline of Public Participation Events



40 MEETINGS & 1,000 PEOPLE

were involved in the creation of this Master Plan! The map on the next page shows the locations of each civic engagement event. Photos and key takeaways from the events on this timeline are included throughout the plan.

VISIONING MEETING
NOVEMBER 5th

This public meeting was held at St. Francis de Sales Parish, gathering residents and community leaders together to share their thoughts on topics like local food, the economy, and transportation in small groups. The meeting was conducted in both English and Spanish with activities for all ages.

VIDEO INTERVIEWS
NOVEMBER 5th

We asked residents throughout the City to tell us what they think of Holland. The video is on the project website.

PLANNING COMMISSION MEETING
SEPTEMBER 22nd

PLANNING COMMISSION MEETING
SEPTEMBER 8th

PLANNING COMMISSION MEETING
NOVEMBER 10th

PLANNING COMMISSION MEETING
DECEMBER 8th

SEPTEMBER | OCTOBER | NOVEMBER | DECEMBER

2016

MASTER PLAN PUBLIC OPEN HOUSE
JUNE 2nd

Around 45 residents attended the open house to provide feedback on the Draft Master Plan's goals and Future Land Use.

PUBLIC HEARING
OCTOBER 11th

CITY COUNCIL MEETING
ADOPTED MARCH 15th

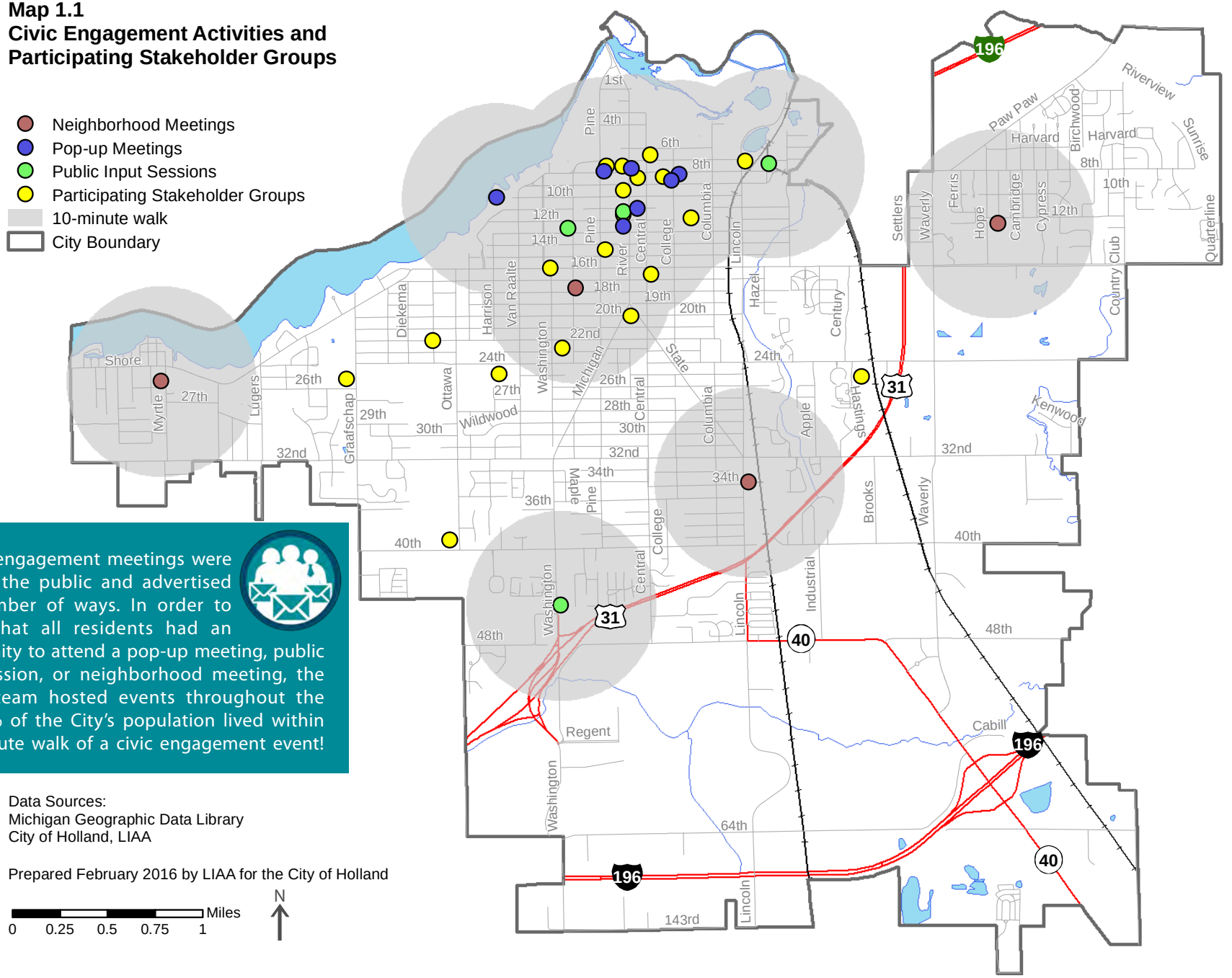
JAN - APR | MAY - AUG | SEP - DEC | JAN - MAR

PLANNING COMMISSION MEETING
FEBRUARY 9th

PUBLIC COMMENT PERIOD BEGINS
JULY 10th

2017

Map 1.1
Civic Engagement Activities and Participating Stakeholder Groups



All civic engagement meetings were open to the public and advertised in a number of ways. In order to ensure that all residents had an opportunity to attend a pop-up meeting, public input session, or neighborhood meeting, the project team hosted events throughout the City. 58% of the City's population lived within a 10-minute walk of a civic engagement event!

Data Sources:
Michigan Geographic Data Library
City of Holland, LIAA

Prepared February 2016 by LIAA for the City of Holland

0 0.25 0.5 0.75 1 Miles

N

What is a Pop-Up Meeting?

Throughout the spring and summer of 2015, LIAA conducted "pop-up" community input meetings where the planning team solicited visions for the future of Holland in busy public spaces and during community events. Map 1.1 shows the locations for the pop-up meetings held to inform this plan, and photos of participants are scattered throughout the document. Below are the two pop-up strategies we used most frequently: asking participants to fill in the blank on the "I want ____ in my community" posters, and answering the question, "In the future, what should Holland have?".

Interactive Activities

Pop-up meetings for this Plan involved a number of interactive activities. One example is below, where participants filled in a speech bubble for what they want to see in their community. Pop-up meetings were held at Tulip Time, National Night Out, Lemonjello's Coffee, and Our Brewery Company. Blank posters were also installed at the Herrick District Library.

Pop-up Meetings at the National Night Out

Holland participated in the 2015 National Night Out, a community event with music, food, entertainment, and activities designed to build strong relationships between neighbors and raise awareness for crime and drug prevention. This event attracts many families and children from the City each year! The project team was at the event on August 4th, 2015 in Kollen Park in order to ask attendees, "What should Holland look like in the future?" Participants responded on chalkboards with their ideas and their photos are included throughout the Plan!

What should Holland look like in the future?

Local and Regional Planning Efforts

The last comprehensive master plan completed for the City of Holland was adopted in 1992 and amended in 2004. Since that time, many neighborhood and sub-area specific plans have been adopted to address specific locations within the City and serve as updates to the City's master plan. In addition to these plans, a variety of City-wide, county, and regional plans have been completed, addressing topics including recreation, housing, transportation, and watershed management. All of these plans contain information and recommendations relevant to the Resilient Holland planning process and this Master Plan. While all of these plans are still valid and worked to inform the planning process of this Master Plan, this Master Plan can be considered the main Master Plan for the City of Holland. This Master Plan seeks to build upon these past and ongoing planning efforts by incorporating elements that support the current vision for Holland's future. A summary of some relevant City, county, and regional planning efforts is included on the following pages.

Holland youth contributing to the Master Plan.

Preparing for the Future

As time passes and conditions change within a community, it is important that plans for the future are reevaluated and updated to increase resiliency to emerging challenges, and to take advantage of new opportunities and shifting trends. The City of Holland and other local and regional entities have consistently prepared for the future by maintaining communication with citizens of all ages, monitoring and assessing changing circumstances, and creating plans for the improvement of the community.

Past and Ongoing Local and Regional Plans

CITYWIDE PLANS

Click on the underlined plans to open hyperlinks!

Housing Target Market Analysis (2015)

Local Food Innovation and Opportunities (2014)

City of Holland Comprehensive Parks and Recreation Master Plan Update (2014)

A Blueprint for Action: Preparing for Aging in Holland (2009)

Neighborhood Vitality and Holland's Elementary Schools (2003)

Holland 2010 Strategic Plan (1988)

Michigan Municipal League PlacePlan for the City of Holland (2014)

Downtown Holland Retail Market Analysis (2014)

Neighborhood Improvement Strategy (2010)

Bicycle and Pedestrian Transportation Plan (2006)

City of Holland Master Plan (1992; amended 2004)

Each document in the box above was reviewed as part of this Master Plan process. Many of these plans and studies are mentioned throughout this Plan, and while each document has important implications for this Plan, just several are described in more detail below.

CITY OF HOLLAND TARGET MARKET ANALYSIS (2015)

The Target Market Analysis, created by LandUse USA, focuses on identifying the market potential for varied housing choices in the center of the City and for the rehabilitation of existing housing stock throughout the entire City.

CITY OF HOLLAND COMPREHENSIVE PARKS AND RECREATION MASTER PLAN UPDATE (2014)

The Comprehensive Parks and Recreation Master Plan identifies existing park and recreational facilities and programs in the City of Holland, assesses community recreational needs, and makes recommendations for future improvements for the City's public spaces and recreational needs.

CITY OF HOLLAND BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN (2006)

This Plan makes recommendations for the improvement of bicycle, pedestrian, and other non-motorized forms of transportation within the City of Holland. The ultimate goal of the plan is to create and maintain a viable bicycle, sidewalk, and non-motorized transportation network that safely and efficiently connects all parts of the City.

CITY OF HOLLAND MASTER PLAN (ADOPTED 1992, AMENDED 2004)

The City of Holland Master Plan described the current conditions of the community, identified key community issues, and provided goals, objectives, and recommendations for future development and land use in the City of Holland.

NEIGHBORHOOD AND SUB-AREA PLANS

Click on the underlined plans to open hyperlinks!

Extending the Vision – An Update of the Strategic Plan for Downtown Holland (2015)

City of Holland Snowmelt Plan (2015)

Keppel's Village Study Committee Final Report (2010)

Central Park Station District Enhancement Study (2007)

Holland Heights Neighborhood Plan (2007)

Maplewood Corners District Enhancement Study (2007)

Columbia Art District Enhancement Study (2006)

Holland Heights District Enhancement Study (2006)

Holland Hospital Neighborhood Plan (2005)

South End Area Master Plan (2000; amended 2005)

South Shore Village District Enhancement Study (2005)

Van Raalte Farm Historic Study Committee Report (2005)

Downtown and Central Neighborhoods Street Improvement Program (2004)

West 17th Street Visioning Workshop Summary Report (2004)

The Center of Centers – Property Redevelopment in the Heart of Holland's Central Neighborhood (2003)

Pine Avenue Study (2003)

Central Neighborhood Plan (2002)

Washington Boulevard Study Committee Final Report (2001)

Waterfront Redevelopment Plan (1999)

Each document in the box above was reviewed as part of this Master Plan process. Many of these plans and studies are mentioned throughout this Plan, and while each document has important implications for this plan, just several are described in more detail below.

EXTENDING THE VISION - AN UPDATE OF THE STRATEGIC PLAN FOR DOWNTOWN HOLLAND (2015)

Extending the Vision is an update to the 2007 strategic plan for Downtown Holland, "Sharpening the Vision." This plan outlines a strategy to make Downtown Holland "the best small downtown in America." Goals of the plan include the provision of quality retail and entertainment options, varied residential opportunities, and high quality buildings and public spaces.

HOLLAND HEIGHTS NEIGHBORHOOD PLAN (2007)

The Holland Heights Neighborhood Plan provided a framework to guide private and public land development and improvements within the Holland Heights Neighborhood, which comprises approximately 18% of the land area within the City.

HOLLAND HOSPITAL NEIGHBORHOOD PLAN (2005)

The Holland Hospital Neighborhood Plan provided recommendations for future development, land use decisions, and physical improvements for the neighborhood with specific attention given to how the proposed expansion of hospital facilities would impact the existing character and form of the surrounding area.

SOUTH END AREA MASTER PLAN UPDATE (2005)

This plan served as an update to the City Master Plan and provided a planning basis for growth and development in the City's South End area where proximity to major highways and dedicated industrial lands had caused increased development pressure.

CENTRAL NEIGHBORHOOD PLAN (2002)

The Central Neighborhood Plan served as an update to the City Master Plan and provided a framework for future development, planning decisions, and physical improvements within Holland's Central Neighborhood.

COUNTY AND REGIONAL PLANS

Click on the underlined plans to open hyperlinks!

Ottawa Housing Next (2015)

Macatawa Watershed Management Plan (2012)

Hazard Mitigation Plan for Kent and Ottawa Counties (2012)

MACC 2040 Long Range Transportation Plan (2015)

Project Clarity: Restoring the Macatawa Watershed – Comprehensive Restoration Plan (2012)

Each document in the box above was reviewed as part of this Master Plan process. Each document has important implications for this Plan as described in more detail below.

OTTAWA HOUSING NEXT (2015)

This report, created by Greater Ottawa County United Way and Lakeshore Housing Alliance, addresses the issue of housing affordability within Ottawa County and outlines the causes and impacts of the lack of affordable housing in the community.

MACC 2040 LONG RANGE TRANSPORTATION PLAN (2015)

The Macatawa Area Coordinating Council created the 2040 Long Range Transportation Plan with a vision of creating and maintaining a transportation system that supports the regional economy, promotes environmental sustainability, and offers safe and efficient transportation options to those who live and work within the region.

MACATAWA WATERSHED MANAGEMENT PLAN (2012)

This plan, created by the local Metropolitan Planning Organization (MPO), the Macatawa Area Coordinating Council (MACC), is intended to provide a framework for water quality improvement activities within the Macatawa Watershed and efficiently guide watershed-related outreach, research, and implementation projects.

PROJECT CLARITY: RESTORING THE MACATAWA WATERSHED– COMPREHENSIVE RESTORATION PLAN (2012)

The Project Clarity Comprehensive Restoration Plan, created by the MACC, serves as the guide for Project Clarity, a regional effort to improve water quality in Lake Macatawa and the Macatawa Watershed. The plan includes implementation solutions that address water quality problems in the lake and provides for a long-term management and maintenance plan for the watershed.

HAZARD MITIGATION PLAN FOR KENT AND OTTAWA COUNTIES (2012)

The Hazard Mitigation Plan for Kent and Ottawa Counties, created by planning staff from the Michigan State Police Emergency Management and Homeland Security Division and other local officials, representatives, and experts, identifies potential hazards to Kent and Ottawa counties and makes recommendations for the mitigation of the impacts from these hazards and response efforts following disaster events.

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CHAPTER 2. WHO WE WERE

European settlement began in Holland in the mid-1800s when large numbers of Dutch immigrants, looking for opportunity and prosperity in America, moved to Western Michigan. Holland was founded in 1847 and was a haven for Dutch culture and faith. As Holland grew, it became known not only for its Dutch culture, but for its booming manufacturing companies and fertile agricultural lands. Beginning in the 1940s, Hispanic families began to settle in Holland, creating the strong Hispanic community that Holland enjoys today. Now, Holland is a thriving, diverse community, with a vibrant downtown and a strong local economy. This chapter contains many historic and modern-day photos of Holland and an overview of the City's growth and development milestones, to serve as a reminder of Holland's past as it continues to thrive.

Postcard drawing of Downtown Holland, courtesy of the Joint Archives of Holland.

Downtown Holland, Spring 2015.

Holland's History in Photographs: Then and Now

(Left) Centennial Park from a historic postcard. Courtesy of the Joint Archives of Holland. (Right) Centennial Park in 2015.

(Left) Parade in Downtown Holland from a historic postcard. Courtesy of the Joint Archives of Holland. (Right) 2011 Holiday Parade.

(Left) Children in the Tulip Time Parade circa 1945. Courtesy of the Joint Archives of Holland. (Right) Tulip Time Parade 2015.

Growth and Development Milestones in Holland

Settlement and Early Days

Holland was founded in 1847. The City was built with a traditional grid street system (as seen in the image on the far right), which still exists today. In 1851, the Holland Pioneer School was established to provide an opportunity for advanced study. Eventually, the Pioneer School evolved into Hope College, which gained its official charter from the State of Michigan in 1866. A harbor and channel to Lake Michigan were excavated to provide a shipping lane to Chicago for the lumber industry and other commercial uses in 1860. Railroad service to Holland began in 1870 and provided capacity for additional economic growth and easy access to the area for tourists. A fire in 1871 destroyed much of the City, and rebuilding efforts included many of the Victorian era structures that still stand in downtown Holland. Holland's first public water and electricity utility systems were established in the 1880s and 1890s, paving the way for future growth.[1,2]

1876 sketch and map of Holland. Courtesy of the Loutit District Library.

Industrialization

During the end of the 19th and beginning of the 20th centuries, industry thrived in Holland. Access to transportation systems allowed for economic growth in a variety of sectors, including furniture production, manufacturing, lumber-related industries, and agriculture. Tourism also thrived during this period, with visitors flocking to area resorts. The population of Holland grew steadily during this period, growing from roughly 4,000 in 1890 to over 14,000 in 1930.[3] The Tulip Time Festival grew out of a community beautification project in the late 1920s and began attracting thousands of visitors, even during its early years. As the community grew, the construction of single-family homes on small lots near the center of the City continued.[4]

Busy scene on 8th Street. Courtesy of the Joint Archives of Holland.

1 Holland History - Holland Area Convention & Visitors Bureau. www.holland.org/about/holland-history/. (Accessed October, 2015)
2 Holland Parks and Cemeteries Department. (2014). City of Holland, Michigan 2014 Comprehensive Parks and Recreation Master Plan Update.
3 City of Holland. (1992). City of Holland Master Plan.
4 Holland History - Holland Area Convention & Visitors Bureau. www.holland.org/about/holland-history/. (Accessed October, 2015)

Growth and Development Milestones in Holland

Mid-Century Growth

The middle of the 20th century brought more growth to the Holland area as the proliferation of the automobile spurred the construction of suburban and highway commercial development outside of the center of the City. In the late 1950s, large annexations of township lands increased the size of the City from around four square miles to around 12 square miles. The population of Holland grew by roughly 10,000 as City boundaries extended east, south, and west.[5] This growth included the first addition to the City of lands south of 32nd Street (Fillmore Township, Allegan County), east of Lincoln Avenue (Holland Heights), and west of Ottawa Avenue (Montello and Central Park neighborhoods, the West End). Much of the lands annexed in the late 1950s looked different from those existing in the City. Larger lots, more contemporary architectural styles, and more suburban development patterns typified these areas that were originally built out in townships and then incorporated into the City. In 1961, the De Zwaan Windmill, imported from the Netherlands, was relocated to what is now known as Windmill Island.[6]

Historic photo of Holland City Hall, from the City of Holland.

Recent History

Recent decades have brought revitalization and new development to the center of the City as industrial operations continue to move away from the waterfront and closer to highways. Improvements to public spaces and private development have helped downtown Holland remain a truly special place where commercial, residential, entertainment, and public uses coexist. Under approval by the Michigan State Boundary Commission, 1,100 acres of land were transferred from Fillmore Township to the City in 1999 in order to extend access to the City's public water system and accommodate development demands.[7] Recent residential development within the City includes a higher percentage of multiple-family structures, including apartments, condominiums, and townhomes.

A Thriving Downtown

8th Street has served as the heartbeat of Holland throughout the City's history. Today, Downtown Holland continues to thrive as the City has improved public spaces and streetscaping, installed snow melting sidewalks, and attracted many successful retail and entertainment options. Residents listed Downtown Holland as an asset again and again during the engagement meetings for this Master Plan.

5 City of Holland. (1992). City of Holland Master Plan.
6 Holland History - Holland Area Convention & Visitors Bureau. www.holland.org/about/holland-history/. (Accessed October, 2015)
7 Holland Parks and Cemeteries Department. (2014). City of Holland, Michigan 2014 Comprehensive Parks and Recreation Master Plan Update.

CHAPTER 3. WHO WE ARE

This chapter summarizes current conditions in Holland including natural features, existing land uses, and regional climate trends. This chapter also provides background data on socioeconomic characteristics of the City such as population change, age, race, poverty, and income. Lastly, this chapter presents the results of a heat vulnerability assessment for the City.

Existing Land Use

The characteristics of the land in Holland and the ways that people use the land change over time. Vacant lands become developed and uses on specific properties shift as economic, social, environmental, and cultural trends change. Changes in City zoning regulation, infrastructure, and transportation routes also create changes in land use patterns over time. In order to plan for the future, it is important to have an understanding of these existing land uses and the relationships between them.

The City of Holland is almost completely developed to varying degrees of intensity. Downtown Holland serves as the center of the region and is adjacent to older traditional neighborhoods, the Hope College campus, some industrial uses, and large park and wetland areas. As the City grew over time, development became more suburban in character and spread further from the Downtown. Newer commercial and industrial areas, typically seen in the southern and eastern parts of the City, are found along busier arterial streets and highway corridors. The following is a general description of the existing land uses found within the City.

SINGLE FAMILY RESIDENTIAL

This category includes detached single-family and two-family (duplex) residential uses. Single-family residential uses are the most predominant land use type in these areas, with two-family residences scattered throughout many neighborhoods. A relatively small number of vacant lots within existing residential neighborhoods present an opportunity for future infill development.

The oldest homes in the City were built on relatively small lots, with shallow setbacks placed on a grid street pattern adjacent to Lake Macatawa and Downtown Holland. More recent development took place further from Downtown. Much of this development occurred on lands under the jurisdiction of neighboring townships that have since been incorporated into the City. These newer developments possess a different character than the historic neighborhoods (e.g., attached garages, larger lots without alleys, curvilinear and

Historic single family homes can be found in many of Holland's neighborhoods.

Pictured: Downtown from above (left, aerial from 2015) and from the street (2011).

cul-de-sac streets rather than a grid system). These characteristics make newer neighborhoods in the City quite distinguishable from older neighborhoods.

MULTIPLE FAMILY RESIDENTIAL

This category includes buildings that contain more than two dwelling units, including apartment buildings, townhouses, mobile home parks, and senior housing facilities. There are a wide variety of multiple-family residential developments within Holland, primarily located on the east and south sides of the City in close proximity to busier streets and highways. These range from condominium developments to apartment complexes and senior living facilities. Most of the newer multiple-family residential complexes lack the integrated character of nearby single-family neighborhoods because they contain different street patterns, lot sizes, setbacks, and building characteristics.

DOWNTOWN

Holland's traditional downtown is located in the northern portion of the City near Lake Macatawa. The downtown, centered on the 8th Street corridor, acts as a primary retail, office, and entertainment center in the region. A wide range of land uses are found in Downtown Holland where multiple-story buildings and walkable streets help create a vibrant and people-friendly atmosphere.

COMMERCIAL AND OFFICE

Commercial and office development can be found scattered throughout the City of Holland. These uses include larger-scale shopping centers, various retail and service uses, small neighborhood commercial nodes, and auto-oriented facilities such as strip malls, gas stations, and drive-through restaurants. The primary office areas in Holland are located along more heavily traveled streets outside of the City's traditional center. These uses include financial institutions, professional offices, and medical clinics.

In contrast to the more compact downtown environment, the commercial areas along Chicago Drive, Waverly Road, US-31, and Washington Avenue contain a wide variety of automobile-related uses characterized by larger lots with front yard parking lots. These corridors provide access to many businesses for residents and those traveling through the area, but lack much in the way of distinguishing characteristics or unifying elements. The need for a more attractive, inviting, and consistent character along these corridors has been regularly discussed during the Resilient Holland planning process.

INDUSTRIAL

Industrial uses have played a vital role in the development and prosperity of Holland since its inception. The City's industries provide job opportunities and a significant tax base to support improvements to infrastructure, facilities, and municipal services. Industrial uses are located in a variety of locations within the City and some of the industrial sites in the City have existed for over 100 years.

Older industrial uses can be found adjacent to Lake Macatawa in close proximity to Downtown Holland and the City's older neighborhoods. In the past, proximity to the water was an important factor in siting industrial facilities and some waterfront land remains in industrial use today. The community will face future decisions regarding the highest and best use of waterfront property and whether industrial operations are desired along the City's waterways in the decades to come. Large areas of the City south of US-31 contain industrial uses. Close proximity to transportation corridors and the City's utility system created a demand for these lands to be annexed into the City in order to accommodate the public utility needs for additional industrial development in the region.

PUBLIC PARKS AND NATURAL AREAS

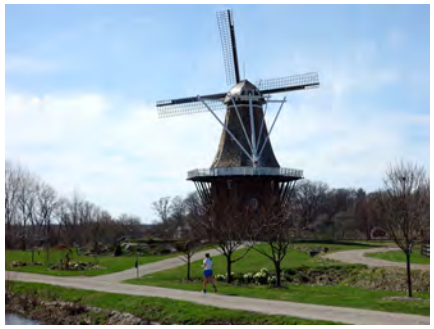
Parks, natural areas, and public open spaces, ranging in size and intensity of development, can be found throughout the City of Holland. The Public Parks and Natural Areas designation includes all publicly owned parkland in the City. Some public parks (e.g., Window on the Waterfront) provide passive recreation opportunities like walking paths and wildlife viewing, while others (e.g., Matt Urban Sports Complex) provide active recreation opportunities and amenities like ball fields, basketball courts, and playgrounds.

PUBLIC/QUASI-PUBLIC

This category includes publicly owned sites, public utility facilities, educational facilities, cemeteries, regional hospitals, the West Michigan Regional Airport, Herrick District Library, and the Holland Community Aquatics Center. It is important to maintain the presence of public lands and facilities within existing neighborhoods to meet the service and social needs of residents. As development competition increases with nearby communities, the ability to offer extensive, convenient public services and areas will reinforce the City as a desirable place to live or locate a business. City facilities and other public and quasi-public uses are scattered throughout the City. The extent of these properties and facilities is discussed in greater detail in Chapter 4.

AGRICULTURE

Portions of the City, primarily near the airport and south of US-31, remain active farmland. These areas often adjoin comparable agricultural lands in the surrounding townships, but face industrial and commercial development pressure due to their large parcel sizes and access to public utilities.



Commercial development along Washington Avenue (top), Windmill Island (middle), and Holland City Hall (bottom)

Commercial Centers

Within the City of Holland, commercial uses are generally concentrated in either the downtown or along busy streets and major highways. Some smaller commercial nodes within neighborhoods provide shopping and services to nearby residents, but the majority of the community's commercial activity occurs in major commercial centers. The character and development patterns of the commercial centers in Holland vary based on the era of development, the characteristics of the surrounding streets, and business type.

Downtown Holland offers a walkable, human-scale environment that City residents and visitors enjoy.

The US-31/Waverly Road/16th Street commercial center in Holland offers number of large commercial stores, strip malls, and drive-through restaurants.

Downtown

Downtown Holland has been the community's primary commercial center since the founding of the City in the 1800s. Downtown streets are arranged in a traditional grid pattern and are enhanced by streetscape elements that create a walkable, human-scale environment. This walkable environment is enhanced by the form of the Downtown buildings, which are directly adjacent to sidewalks, multiple stories in height, and have traditional facades with large windows at street level, awnings, and appropriately scaled signage. Downtown Holland serves as a gathering place for residents and is a hub of activity during local festivals and celebrations.

US-31/Waverly Road/16th Street

US-31 is a major highway that runs through Holland, providing vehicular connections to communities to the north and south as well as the state and national highway network. Waverly Road is a major City street that parallels a portion of US-31 in the northeast portion of the City. Along these two streets, between 8th and 32nd Streets, commercial uses have been developed that capitalize on the high traffic volumes. The character of this commercial development is generally suburban and includes big box stores, commercial strip malls, and drive-through restaurants. Buildings are set back significantly from streets, with large parking lots frequently placed between the buildings and streets. Development patterns in this location are designed to serve motorists, and pedestrian infrastructure is either intermittent or nonexistent.

Commercial development along Chicago Drive (left), typical Washington Avenue development (middle), and an example of a Neighborhood Commercial Node (right).

Chicago Drive

The commercial uses along Chicago Drive in the northeast corner of the City are typical of highway commercial development in communities across the country. Chicago Drive leads west into the Downtown area and passes through portions of the City and Holland Charter Township before merging with 8th Street as motorists enter Downtown Holland. Commercial uses along Chicago Drive, between Waverly Road and the Macatawa River, consist of automobile dealerships, drive-through restaurants, and commercial strip developments. Large parking lots and deep setbacks predominate. Pedestrian infrastructure is nonexistent along Chicago Drive, however sidewalks that provide access to businesses are present along Waverly Road both north and south of Chicago Drive.

South Washington Avenue

Washington Avenue, in the south-west portion of the City, is the location of a high concentration of suburban, highway commercial development. Between 32nd Street and US-31, commercial development along Washington Avenue is suburban in character with buildings set back from the street and large parking lots located in front of and alongside buildings. Sidewalks provide pedestrian access along both sides of Washington Avenue. Development in this area includes commercial strip malls, drive-through restaurants, and automotive service centers.

Neighborhood Commercial Nodes

Many small neighborhood commercial nodes exist within Holland's primarily residential neighborhoods. These areas provide easily accessed services and goods to meet the day-to-day needs of City residents. Most of these neighborhood commercial nodes have been in existence for decades and are well-integrated into the fabric of the community. Generally, their character and scale complement surrounding residential development, and the stores, restaurants, and other establishments located in these areas are comfortably reached by foot, bicycle, or car.

MAP 3.1
NEIGHBORHOODS OF HOLLAND

This map depicts the general locations of the distinct neighborhoods in the City of Holland.

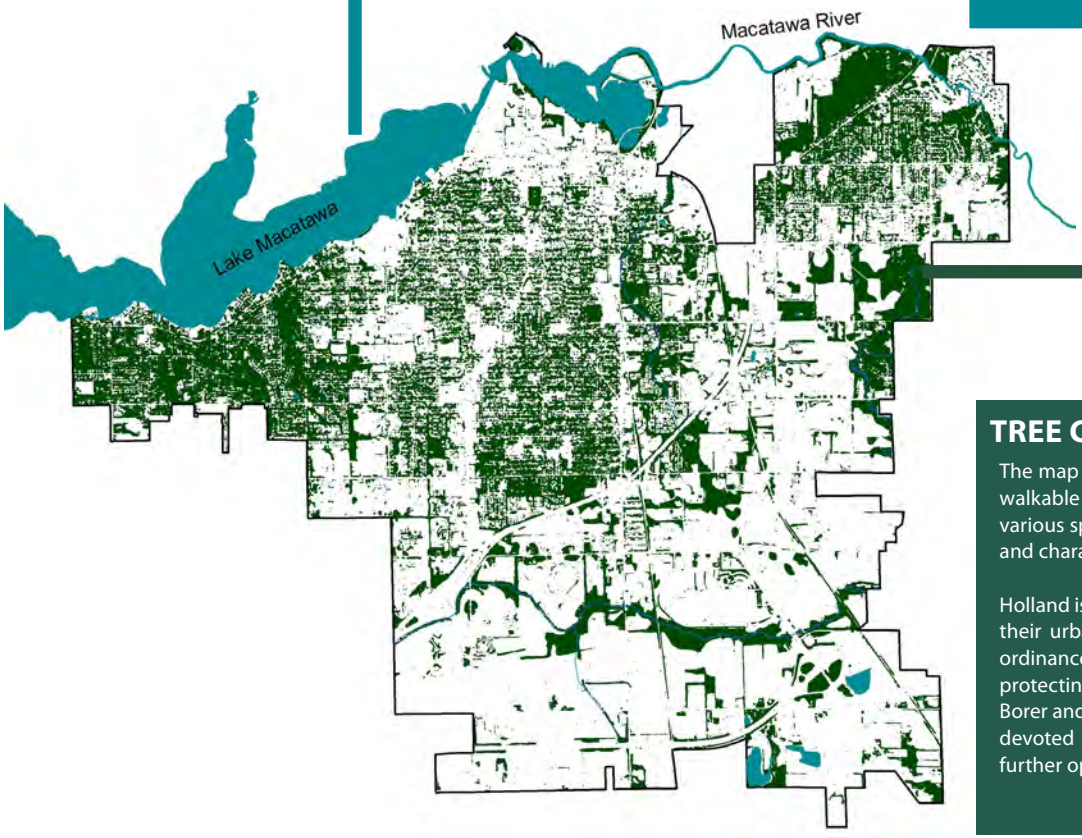
Neighborhoods

Holland is home to a number of distinct neighborhoods, each with their own unique character. Holland citizens value their neighborhoods and the social connections within them. Over the course of the past two decades, the City has developed neighborhood-specific plans that address distinct neighborhood issues. Planning efforts for Holland's neighborhoods strive to provide and preserve unique, vibrant, walkable, and active places that enhance the quality of life for City residents. The map on this page shows the general locations of the major residential neighborhoods in the City. Additional information and recommendations for the future of these neighborhoods can be found in Chapter 5.

Natural Features

The City of Holland has a number of natural features, including its water resources in Lake Macatawa and the Macatawa River, and its beautiful tree canopy. The City also has some native wetlands, trails, and other recreational amenities within its natural open space. These and many other features and amenities will be discussed further in Chapter 4.

Map 3.2
Natural Features



LAKE MACATAWA AND THE MACATAWA RIVER

Holland's northern boundary rests along the southern shores of Lake Macatawa, a drowned rivermouth. "Lake Mac," as some call it, is about six miles long, leading out into Lake Michigan just west of the City through a manmade channel now dredged by the United States Army Corps of Engineers. The lake's main tributary, the Macatawa River, extends east through the City. A number of industrial developments are located along the Lake and the Macatawa River within Holland's city limits, including the Holland Power Plant, Holland's Waste Water Treatment Plant, and a large Kraft Heinz pickle factory. A number of amenities including Windmill Island and several restaurants along the shoreline provide entertainment and recreation opportunities for residents and visitors.

The Greater Holland Community has taken a number of steps to address sedimentation and phosphorus loading in the Lake and restore strong water quality. A number of regional efforts, including Project Clarity, are discussed in Chapter 4.

TREE CANOPY

The map on this page illustrates the tree canopy coverage in Holland. The downtown and walkable neighborhoods to the West and South of downtown have numerous street trees of various species. Trees shade neighborhoods, slow rain water runoff, increase the aesthetics and character of the community, and provide many water and air quality benefits.

Holland is a "Tree City." Tree City USA is a national designation for communities that manage their urban tree canopy, maintain a tree board or department, have a community tree ordinance, and provide educational opportunities and resources toward expanding and protecting the tree canopy. However, like many Michigan communities, the Emerald Ash Borer and aging trees have depleted the overall tree canopy. Beginning in 2013, the City has devoted resources each year from its budget to replenish trees, and Chapter 4 discusses further opportunities for the City to protect and enhance its tree canopy.

Regional Climate Trends

From food availability and industry operating procedures to boating recreation, climate and weather impacts everyday life in the City of Holland. Well-documented changes in West Michigan's regional climate need to be understood in order to plan for a resilient future, one where Holland is able to respond to and recover quickly from rain and ice storms, high heat days, and many other impacts of climate variability. Research by the West Michigan Climate Resiliency Framework, the Great Lakes Integrated Sciences + Assessments Center (GLISA), and others is summarized below.

What Changes are Expected in West Michigan?

- Storms are expected to become more frequent and more severe
- Increases in winter and spring precipitation
- Less precipitation as snow and more as rain
- Less winter ice on the Great Lakes
- Extended growing season (earlier spring/ later fall)
- More flooding events with risks of erosion
- Increases in frequency and length of severe heat events
- Increased risk of summer drought

What about all of these cold winters?

It's important to remember that climate and weather are related, but not the same thing! Weather refers to the day-to-day conditions in a particular place, like sunny or rainy. Climate refers to the long-term patterns of weather over large areas. Climate change is the ongoing change in a region's general weather characteristics or averages. In the long term, a changing climate will have more substantial effects on Western Michigan than individual weather events.

Trends and Implications

From 1900 to 2012, the average air temperature in Western Michigan has increased by 2.0 degrees Fahrenheit. The Great Lakes Integrated Sciences + Assessments Center (GLISA) from the University of Michigan expects an additional 1.8 to 5.4 degree Fahrenheit increase in air temperature by the end of the century.

From 1958 to 2012, the amount of precipitation falling in the heaviest 1% of storms increased by 37% in the Midwest and 71% in the Northeast. This means that severe storms are increasing in severity. There is also strong evidence that the number of storms is increasing in the Midwest and Great Lakes regions.

The Ottawa County Hazard Mitigation Plan places the City of Holland at elevated risk for severe winter weather, damaging thunderstorms, and flooding from rivers and infrastructure overflow. The Plan also gives special priority to the City's master plan, as its top recommendation for the City states: "Give consideration to hazard mitigation needs and concepts in the next update of the community's master plan and associated zoning maps...the Holland Planning Commission should give consideration to hazard mitigation concepts and concerns, and adjust the master plan to accommodate viable hazard-related strategies."

What is Resiliency Planning?

Resiliency is a measure of a City's ability to respond to and withstand changes in climate, economy, or other disruptions. This page provides some compelling evidence for why the City of Holland, along with other Michigan communities, is planning for a future where the climate is generally warmer, with greater risks of both flooding and drought.

Small steps can help secure a resilient future for Holland, as discussed in Chapter 4.

Demographic Characteristics

Through a series of tables, the next several pages show overall demographic characteristics of the City's population. In general, each table in this chapter uses data collected on a rolling basis from 2010 through 2014 by the American Community Survey (a United States Census Bureau product) to represent current conditions in the City of Holland. Census data from the 2000 Census is used as a point of comparison, and a change in both number and percentage (using a percent change formula) is also given. The information selected is useful for understanding the current conditions of the population, as well as planning for housing and service needs. While just the City of Holland is shown on the tables in this chapter, Appendix A contains expanded versions of each table with information shown for the City of Zeeland, Holland Township, Zeeland Township, Park Township, Laketown Township, and Fillmore Township.

Table 3.1 Total Population, City of Holland

	2000	2014	% Change 2000 to 2014
City of Holland	35,048	33,342	-4.9

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table 3.2 Population Projections, City of Holland

	Population 2014	Projected Population 2020	2030	% Change 2014 to 2030
City of Holland	33,051	34,083	35,114	6.2

Source: American Community Survey (2010-14), West Michigan Regional Planning Commission (Projections)

Table 3.1 shows the change in Holland's total population from 2000 to 2014, while Table 3.2 shows the projected changes in population as published by the West Michigan Regional Planning Commission. Overall, while total population in the City of Holland has decreased by about 5 percent, the City is expected to grow by 6.2 percent between 2014 and 2030.

Understanding Census Data

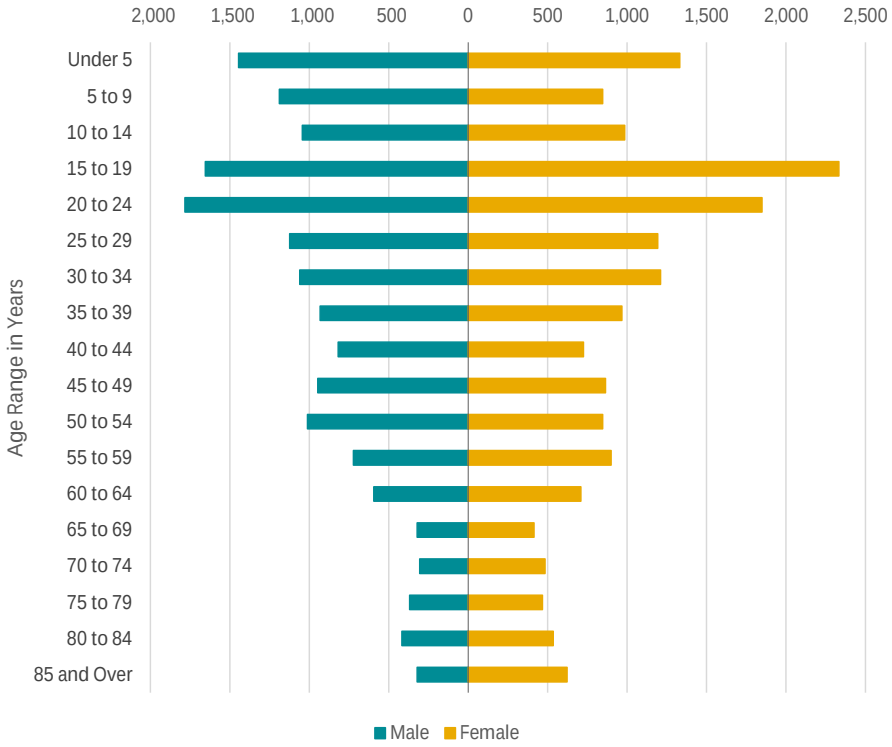
The following pages show a number of datasets related to Holland's population. All of this data comes from the United States Census Bureau. While the U.S. Census collects information every 10 years (2000 data is used here), the American Community Survey, also conducted by the U.S. Census Bureau, collects data on a rolling basis throughout each year. The American Community Survey summarizes data into 5-year ranges, producing confident estimates for 2010 to 2014. The tables on the next few pages display a number, a percent (where relevant), and a percentage change from the first year (2000 data) to the current conditions (2010-14 data). For example, Table 3.1 shows the number of residents in the City of Holland for each year, and the percentage change.

Table 3.3 Population by Age, City of Holland

Age Range, In Years	2000		2014		Change 2000 to 2014	
	#	% of total	#	% of total	#	% Change
5 and under	2,790	8.0	2,767	8.3	-23	-0.8
5 to 9	2,512	7.2	2,034	6.1	-478	-19.0
10 to 19	5,759	16.4	6,035	18.1	276	4.8
20 to 24	4,218	12.0	3,634	10.9	-584	-13.8
25 to 44	9,587	27.4	8,035	24.1	-1,552	-16.2
45 to 64	5,442	15.5	6,568	19.7	1,126	20.7
65 and over	4,740	13.5	4,268	12.8	-472	-10.0
Total Population	**35,048**	**100.0**	**33,342**	**100.0**	**-1,706**	**-4.9**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Figure 3.1 Age Distribution in the City of Holland, 2014



Source: American Community Survey (2010-2014)

Understanding the age distribution of Holland can help identify social, economic, and public service needs in the community. As shown in Table 3.3, the number of residents ages 10 to 19 and ages 45 to 64 increased by 4.8 and 20.7 percent respectively between 2000 and 2014. All other age ranges lost population, with the greatest decrease occurring between the ages of 5 to 9, though in the 14 years between 2000 and 2014, residents who did not move out of the City may be simply counted in a different age classification.

Figure 3.1 is a visual representation of Holland's age distribution in 2014. The blue bars represent the size of the male population, while yellow bars represent the female population. It is clear that Holland has a sizable youth and young adult population, as indicated by the bars representing ages 15 to 19 and 20 to 24 on the graphic.

Holland youth contributing to this Master Plan at a public meeting.

Household income is a key measure of the economic condition of the community. One useful way to measure income is through Median Household Income, or the amount of money the "middle" household makes in the community. The Median Household Income for the City of Holland (Table 3.4) was $44,619 annually in 2014, a decrease in spending power of about 26% since 2000. The 2000 Median Household Income in Table 3.4 was adjusted for inflation and is shown in 2014 inflation-adjusted dollars.

Table 3.4 Median Household Income in the City of Holland

	2000 (In 2014 inflation-adjusted dollars)	2014 dollars	% Change 2000 to 2014
City of Holland	60,095	44,619	-25.8

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014), adjusted for inflation using the Bureau of Labor Statistics Inflation Calculator

Table 3.5 Educational Attainment in the City of Holland

Year	% of Population Ages 25 and Over with a Bachelor's Degree or Higher
1990	22.5
2000	26.9
2014	30.3

Source: U.S. Census Bureau (1990, 2000), American Community Survey (2010-2014)

Educational attainment is another measure of the community's economic condition. Research shows that as people become more educated, their earning potential increases over the course of their life.[8] Having a college education is also associated with greater economic stability, positive health outcomes, and a number of other social and economic benefits.[9] In Holland, the percentage of the adult populations (defined as ages 25 and over) with at least a Bachelor's degree has steadily increased since 1990. As of 2014, just over 30% of adults had at least a Bachelor's degree.

County Health Trends

Holland is split between Ottawa and Allegan counties. Each county published a Community Health Assessment that summarized some key characteristics of resident health. Below are some key findings from each Community Health Assessment:

- Ottawa County ranked #1 in overall health in the State of Michigan, while Allegan County ranked #9.
- Allegan County's key areas for improvement include improving the number of healthcare providers, transportation access to healthcare, and cultural practices of residents.
- Ottawa County's key health issues identified in the Community Health Assessment are: high rates of obesity in adults, poor vegetable and fruit consumption in the population overall, and excessive alcohol use.

8 Day, Jennifer C. and Newburger, Eric C., The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings. Published by the U.S. Census Bureau in 2002.
9 Levin, Henry. et. al. The Costs and Benefits of an Excellent Education for All of America's Children. 2006. http://www3.nd.edu/~jwarlick/documents/Levin_Belfield_Muennig_Rouse.pdf.

Table 3.6 Race in the City of Holland

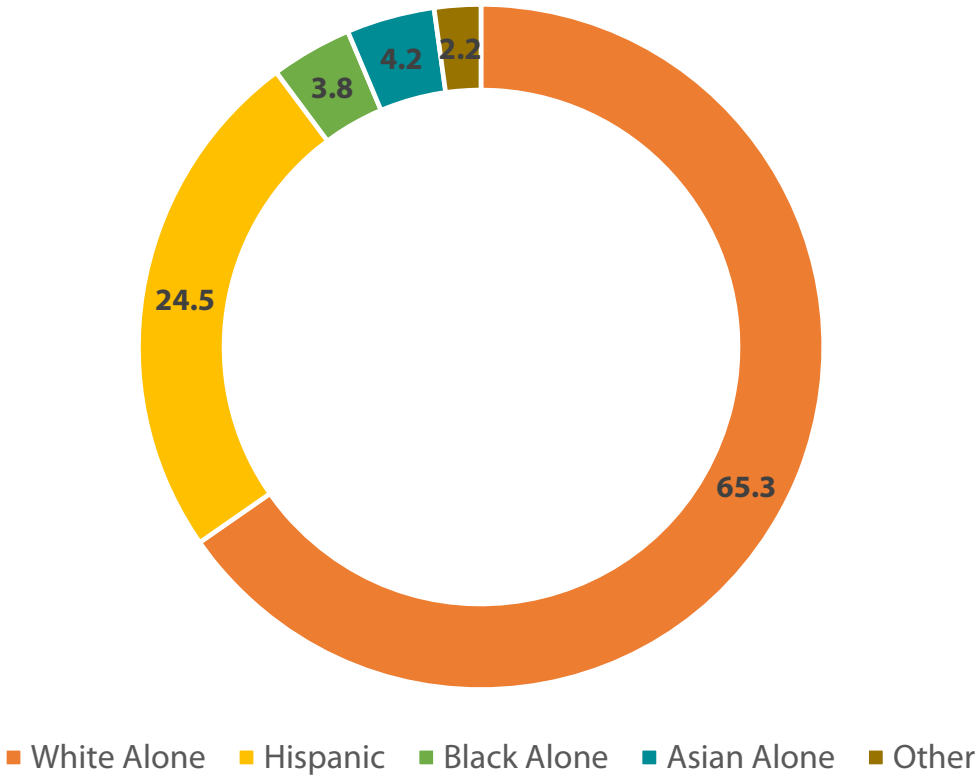
	2000		2014		% Change
	#	% of total	#	% of total	2000 to 2014
White Alone	24,543	70.0	21,785	65.3	-11.2
Hispanic	7,783	22.2	8,159	24.5	4.8
Black Alone	819	2.3	1,278	3.8	56.0
Asian Alone	1,236	3.5	1,388	4.2	12.3
Other	667	1.9	732	2.2	9.7
Total Population	**35,048**	**100.0**	**33,342**	**100.0**	**-4.9**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table 3.6 shows that Holland is becoming more racially and ethnically diverse. The percentage of the population that is Hispanic, Black, Asian, or another non-white race or combination of races notably increased between 2000 and 2014, while the share of the population that is white alone decreased by 11.2 percent. The fastest growing race segment in the City was the Black alone population, growing by over 400 residents, which is a 56% increase from the 2000 to 2014 Census counts.

Figure 3.2 shows the information in Table 3.6 for the year 2014 in a visual format. This simple breakdown shows that about 65 percent of the population is white alone, while one-fourth of Holland's population is Hispanic. Throughout the public input process for this Master Plan, many residents cited cultural and racial diversity as an asset.

Figure 3.2 Race in the City of Holland, as a percentage of total population in 2014



Source: American Community Survey (2010-2014)

The next several pages discuss information on the number of households and individuals that live below the poverty threshold in the City of Holland. Information on poverty was obtained from the U.S. Census Bureau. The U.S. Census uses one measurement of poverty, but many government aid programs and other organizations may define poverty differently.[10] See the box on this page for more information on how poverty is defined by the U.S. Census Bureau.

Table 3.7 shows that over 5,600 residents of Holland lived in poverty in 2014. This is an increase of over 2,200 people since 2000 and represents a percentage increase of 64.8%. Table 3.8 shows that the population in poverty (5,653) is concentrated in 1,850 households in the City of Holland. While the City has lost population since 2000, the number and percentage of households in poverty has increased from 10% of households in 2000 to 16.2% of households in 2014.

Table 3.7 Total Population in Poverty in the City of Holland

	2000		2014		Change (2000 to 2014)	
	#	% of total population	#	% of total population	#	% change
Total Population Below Poverty	3,430	10.6	5,653	18.9	2,223	64.8
Total Population (for whom poverty can be determined)	32,254	100	29,965	100	-2,289	-7.1

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table 3.8 Households in Poverty in the City of Holland

	2000		2014		Change (2000 to 2014)	
	#	% of total households	#	% of total households	#	% change
Total Households in Poverty	1,207	10.0	1,850	16.2	643	53.3
Total Households	12,044	100	11,452	100	-592	-4.9

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

How is poverty defined in this Master Plan?

The data tables on these pages use the U.S. Census Bureau's definition of poverty. The U.S. Census Bureau determines a dollar value threshold that varies each year according to family size, age of the householder, and family composition. If a family's total income is less than the dollar value threshold, then every individual in the family is considered in poverty. Non-related persons living with an individual or family in poverty are not considered in poverty. As an example, the dollar value threshold for a family of five (composed of three adults and two children) was $28,960 in 2014. Poverty status is not determined for the entire population, which explains why the "total population" field on Table 3.7 has smaller values than the total population on Table 3.1. Individuals under 15 that do not live with family and individuals living in college dormitories or group living quarters are excluded from poverty calculations.

10 For more information on how the U.S. Census Bureau defines poverty, see the web page titled *How the Census Bureau Measures Poverty* page at https://www.census.gov/hhes/www/poverty/about/overview/measure.html

Table 3.9 Age Distribution of Total Population in Poverty in the City of Holland

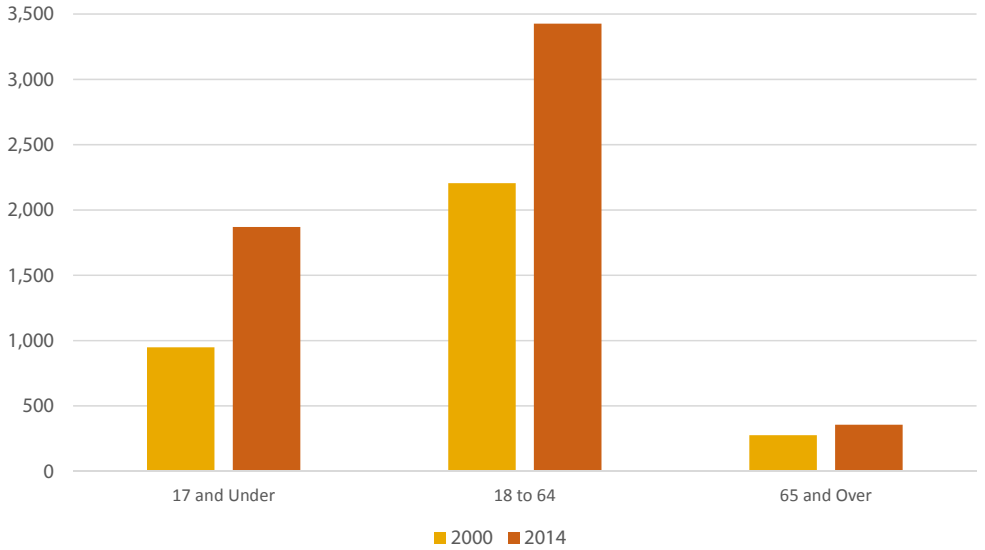
	2000		2014		
Age Range (years)	# living below poverty	% of total population below poverty	# living below poverty	% of total population below poverty	**% Change (2000 to 2014)**
17 and Under	949	27.7	1,870	33.1	97.0
18 to 64	2,205	64.3	3,427	60.6	55.4
65 and Over	276	8.0	356	6.3	29.0
Total Population Below Poverty	**3,430**	**100.0**	**5,653**	**100.0**	**64.8**

Source: U.S. Census Bureau (2000) American Community Survey (2010-14)

Table 3.9 shows the age distribution of the total population living in poverty in 2000 and 2014. The table classifies those in poverty according to three age ranges: 17 and under, 18 to 64, and 65 and over. The graph in Figure 3.3 shows the number of residents in poverty in these three age ranges in 2000 (yellow) and 2014 (orange).

Table 3.9 and Figure 3.3 on this page show that the majority of the population in poverty is in the 18 to 64 age range. However, the column on the far right of table 3.9 shows that those aged 17 and under saw the greatest percent increase, nearly 100%, between 2000 and 2014. The senior population, aged 65 and over, saw a more moderate increase in the number of people in poverty, increasing by 29% from 2000 to 2014.

Figure 3.3 Age Distribution of Poverty, City of Holland 2014



Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Building Community Resilience with a Vulnerability Assessment

Communities across Michigan are experiencing the impacts of climate variability on agriculture, infrastructure and human health.[11] Severe storms, extreme heat events, and heavy flooding are all projected to increase in West Michigan, but with thoughtful planning and preparation, communities can better withstand and recover from these events and become even better places to live and thrive.[12]

The following pages summarize the results of a vulnerability assessment for the City of Holland. A vulnerability assessment is a useful step toward increasing resiliency. A vulnerability assessment uses maps and data to identify areas of the community where populations are most likely to experience the negative effects of climate variability. This assessment focuses on the City's vulnerabilities to extreme heat events, as this is expected to occur more often and with greater intensity in West Michigan (see the summary of climate trends in Part 1 of this report). However, many risk factors identified here may also apply to other types of shocks and changes within the community.

Generally, vulnerability assessments can help inform action plans to reduce sensitivities and exposures to hazards of all kinds. The maps on the following pages can provide direction for Holland's planning commissioners, City staff, and public health officials as they work to reduce risks to human health. This vulnerability assessment can also be used to channel resources to the areas in greatest need, develop emergency preparedness materials and programs, and reduce environmental exposure through land use planning and other policies.

EXTREME HEAT EVENTS

Extreme heat is caused by very high temperatures and very high humidity. Extreme heat events that last for several days are called heat waves, and can cause serious health conditions like heat exhaustion, heatstroke, and even death.[13] Heat waves can also damage agricultural products, exacerbate drought, and create problems for infrastructure like roads and utilities. Additionally, extreme heat events are hard to plan for, as weather forecasts often fail to predict prolonged heat waves in the long-term, and short-term forecasts leave little time to prepare.[14] It is important for communities across the State to build the relationships and resources necessary to mitigate the severe consequences of heat waves before an event occurs. This vulnerability assessment provides one step in the process of doing just that.

A number of factors can make a community more vulnerable to extreme heat. In Michigan, heat intensity varies based on a community's proximity to the Great Lakes and geographic latitude. Studies have shown that heat-related mortality generally occurs in areas of the community that are warmer, less stable, and home to more disadvantaged

Vulnerability Assessments

A vulnerability assessment is designed to identify and help prioritize adaptation strategies in the community planning process. The vulnerability assessment in this chapter uses a model that can be expressed as:

VULNERABILITY = SENSITIVITY + EXPOSURE

Exposure refers to hazards in the natural or built environment, while sensitivity refers to the degree to which a community or certain segments of a community could be impacted by an event. Overall vulnerability is where populations more sensitive live and where environmental risk is highest. By identifying the most vulnerable areas of the community, this assessment can increase the City's resilience to extreme weather events in the future.

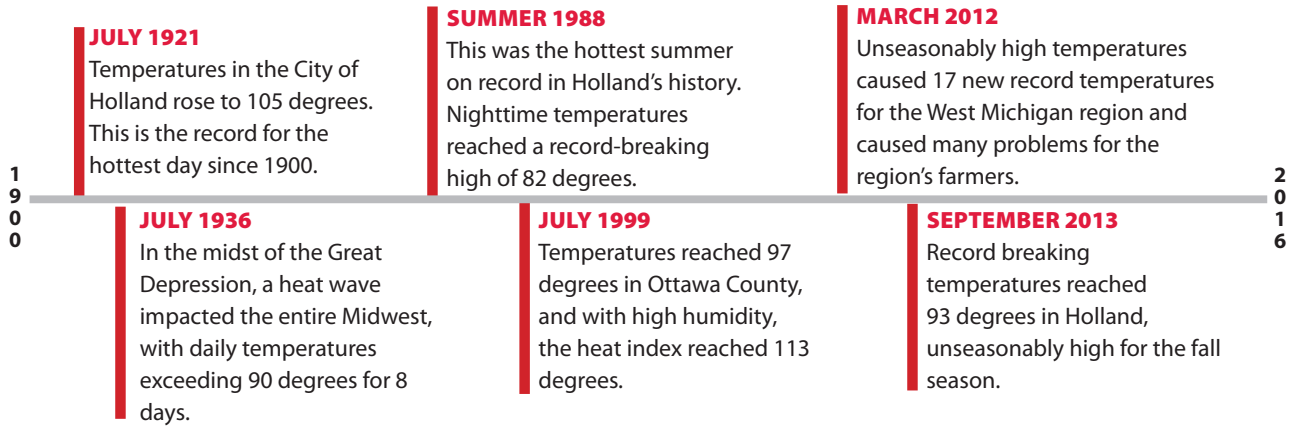
11 There are many resources available to study this more. One good example is the Union of Concerned Scientists publications, for example see this 2009 bulletin on Michigan's response to climate change: http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/climate-change-michigan.pdf
12 For more on climate projections for West Michigan, see the Regional Climate Trends page in this Chapter.
13 Center for Disease Control and Prevention, Climate Change and Extreme Heat Events. http://www.cdc.gov/climateandhealth/pubs/ClimateChangeandExtremeHeatEvents.pdf
14 Ibid.

populations.[15] One study found that neighborhoods with the highest temperatures and the least amount of open space and vegetation were also likely to be the most socioeconomically disadvantaged.[16] The same study also found that residents with access to air conditioning and access to transportation were the most protected from extreme heat impacts.

The project team used a method developed by the University of Michigan's Taubman College of Architecture and Urban Planning in order to determine Holland's vulnerability to extreme heat events.[17] This vulnerability assessment identifies the most vulnerable areas in the City of Holland using a simple model:

VULNERABILITY = SENSITIVITY + EXPOSURE

In this model, sensitivity refers to the degree to which a community or certain segments of a community could be impacted by an event, while exposure refers to hazards in the natural or built environment. Vulnerability occurs when the environment is more susceptible to extreme heat and where more sensitive populations live. First, separate maps for sensitivity (where sensitive populations live) and exposure (where the environment is most susceptible to extreme heat) were created. The overall sensitivity and exposure maps, and the resulting vulnerability maps, are shown on the following pages.



Historical Extreme Heat Events in West Michigan

Extreme heat events are nothing new to Michigan residents, but historically have occurred with a number of years in between. Research shows that heat waves once occurred every 20 years in the United States, but now may occur every two to four years in Michigan. Additionally, heat waves are projected to increase in intensity nationwide and throughout the State of Michigan. For more information, see the Center for Disease Control and Prevention's publication on Climate Change and Extreme Heat Impacts. These and other historical weather events in Ottawa County are listed in the county's Hazards Analysis Report conducted in 2002.

15 Foundations for Community Climate Action: Defining Climate Change Vulnerability in Detroit. University of Michigan. December 2012.
16 Semenza JC, Rubin CH, Falter KH, et al. Heat-related deaths during the July 1995 heat wave in Chicago. N Engl J Med 1996; 335:84–90.
17 Foundation for Community Climate Action: Defining Climate Change Vulnerability in Detroit (December 2012). University of Michigan's Taubman College of Architecture and Urban Planning.

STEP ONE: IDENTIFYING SENSITIVE POPULATIONS

Researchers who study heat impacts have found that several groups of people tend to experience the most harm from a heat event.[18] The following populations are considered relatively more sensitive (see Map 3.3):

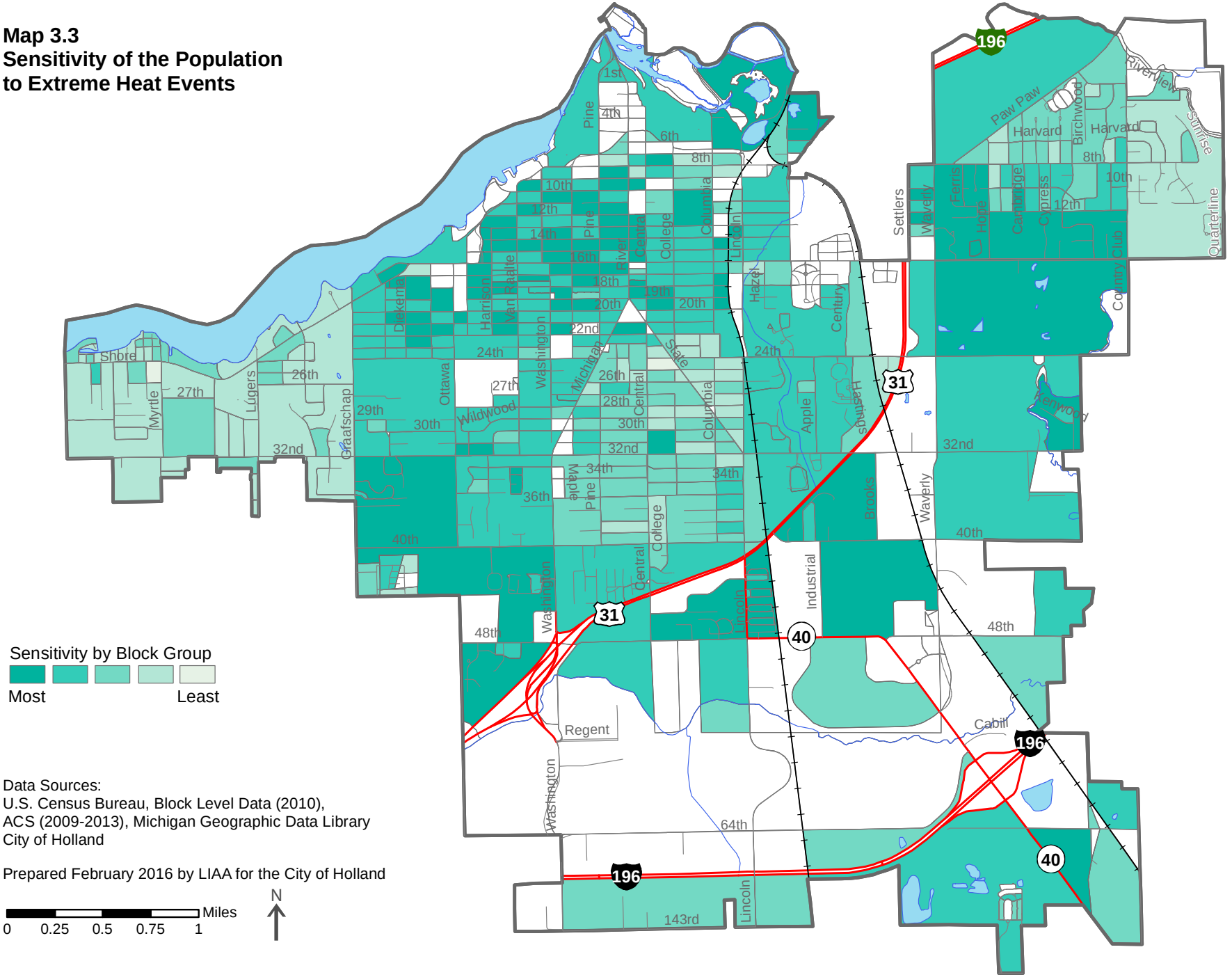
- Residents 65 years of age and over - Studies indicate that older age is associated with higher hospital admission rates in heat waves.[19]
- Residents living alone - Although living alone is not necessarily a risk, people who are socially isolated are at greater risk during an extreme heat event. Isolated people may not be able to recognize symptoms of heat-related illness and may fail to take proper action.[20]
- Minority populations - Studies also suggest that minorities are at greater risk during extreme heat events. This may be for various reasons, including less reliable access to health care, transportation and other social supports needed to reduce heat exposures.[21] In other words, a correlation exists between non-white populations and increased sensitivity to extreme heat.
- Populations in poverty - Living in poverty is associated with increased heat-related morbidity and mortality. In general, persons living at or below the poverty line have less access to resources, like air conditioning or cooling options for their residences. This can limit a person's access to relief from an extreme heat event.[22]
- People over 25 with less than a high school education - Similarly, studies demonstrate a link between low educational attainment and heat-related illness and death.[23]

Heavy Flooding Vulnerability

Vulnerability assessments can also be conducted for heavy rain and flooding events. West Michigan has already experienced an increase in heavy rain events (see regional climate trends on page 30), and rain and snow totals are projected to increase. A partial flooding vulnerability assessment was conducted by researchers from the University of Michigan's Taubman College of Architecture and Urban Planning using information on where flooding historically occurs within the City. These maps are included in the environment section of Chapter 4.

18 Foundation for Community Climate Action: Defining Climate Change Vulnerability in Detroit (December 2012). University of Michigan's Taubman College of Architecture and Urban Planning.
19 Curriero FC, Heiner KS, Samet JM, et al. Temperature and mortality in 11 cities of the eastern United States. American Journal of Epidemiology. 30 (2001): 1126-8.
20 Smoyer-Tomic, K.E.; Kuhn, R.; Hudson, A. Heat wave hazards: An overview of heat wave impacts in Canada. Nat. Hazards 2003, 28, 465–486.
21 Waugh and Tierney (eds.) Emergency Management: Principles and Practices for Local Government. Chapter 13: Identifying and addressing social vulnerabilities by Elaine Enarson.
22 Smoyer KE. Putting Risk in its place: methodological considerations for investigating extreme event health risk. Social Science and Medicine. 47:11 (1998):1809-1824.
23 Curriero FC, Heiner KS, Samet JM, et al. Temperature and mortality in 11 cities of the eastern United States. American Journal of Epidemiology. 30 (2001): 1126-8.

Map 3.3
Sensitivity of the Population to Extreme Heat Events



WHERE DO THE MOST SENSITIVE POPULATIONS LIVE IN HOLLAND?

The Sensitivity of the Population to Extreme Heat Events (Map 3.3) provides a reasonably detailed assessment of where sensitive populations live. This does not mean residents in these locations are in immediate danger. Rather, the map provides planning officials a new way of identifying areas where heat waves could present serious problems for a significant number of citizens. In general, the map shows that the populations in some areas are relatively more sensitive to extreme heat events than others. There are a number of areas within the City of Holland with relatively high concentrations of sensitive populations. The next several paragraphs explain who is considered more sensitive to extreme heat and how this map was created.

Map 3.3 shows where the highest concentrations of the five populations listed above live at the Census Block level. It is important to note that this information came from the United States Census Bureau's American Community Survey data, collected on a rolling basis from 2009 to 2013. This data likely counts some people twice, such as in cases where a person is both a minority and over 65. This may over-estimate the severity of the sensitivities in some locations.

There are other factors that could increase an individual's risk of heat-related illness that were not mapped in this assessment. Many additional variables could be collected through local surveys or other sources including:[24]

- The degree of social connections among individuals within a community
- Populations with preexisting health concerns like substance addiction, mental illness, or confinement
- Populations who live on higher floors of multistory buildings

STEP TWO: IDENTIFYING AREAS WITH HIGH EXPOSURE

Exposure refers to the environmental factors that increase the risk of extreme heat. When larger communities experience heat waves, air temperatures can vary significantly from place to place during the day and at night. Some of these differences can be attributed to the varying types of land cover found throughout the community.[25] For example, temperatures can be significantly lower at night in locations with a heavy tree canopy and very little pavement. Conversely, temperatures can be higher in locations with little greenery and lots of pavement. This temperature relationship is called the Urban Heat Island (UHI) effect.

When the Urban Heat Island effect is not present, heat indexes (the combination of air temperature and humidity) rise when the sun is shining during the day and drop when the sun goes down in the evening. Urban Heat Islands are caused when buildings, roads, and other impervious surfaces absorb heat from the sun during the day and release heat throughout the night. In other words, in areas with excessive impervious surfaces and less natural ground coverage, heat indexes are higher, even at night. During a heat wave, the environment stays warm even at night, and sensitive populations are at even greater risk of heat-related illness. Studies have documented that despite nearby rural areas, the Urban Heat Island Effect can cause a 2 to 9 degree Fahrenheit increase in

24 Mapping Community Determinants of Heat Vulnerability. Environ Health Perspectives 117:1730–1736 (2009).
25 Landsberg, H. (Ed.), 1981. The Urban Climate. Academic Press, New York.

air temperature.[26] Two key factors were used to determine areas with high exposure: impervious surfaces and tree canopy coverage.

- Impervious Surfaces - Impervious surface refers to parking lots, roads, sidewalks, building footprints, and any other area that is paved. Data for impervious surfaces was digitized using aerial imagery. Like all urbanized areas, the City of Holland has some areas with significant impervious surface coverage that appears to be caused by roads, homes, and commercial areas.
- Tree Canopy Coverage - Tree canopy refers to the land within a community covered by trees, shrubs, or other vegetation. Trees and vegetation actually lower the surface and air temperature nearby, reducing the Urban Heat Island effect.27 Holland's tree canopy data was digitized using aerial imagery and mapped as a percentage of total land cover within each Census Block.

WHERE IS THE RISK OF EXTREME HEAT THE GREATEST?

The Exposure to Extreme Heat Events Map (Map 3.4) shows the areas within the City of Holland where the risk of the Urban Heat Island Effect is greatest. In other words, the darker shades of blue indicate where extreme heat may be most intense during a heat wave. This map can help the City better assess where new vegetation and tree canopy should be prioritized, and where reducing impervious surfaces (e.g., specialized pavement or native landscaping) would be most beneficial.

Environmental exposure can be high in a Census Block even if zero or few residents live in the Block. Although zero or few residents live in these areas, exposure in these areas is still important to consider. Heat impacts may not be defined at the Census Block level, but residents in surrounding Blocks may feel the impacts of high environmental exposure. Additionally, commercial areas and industrial uses with high exposure increases the vulnerability for sensitive populations that may work, shop, or visit these areas.

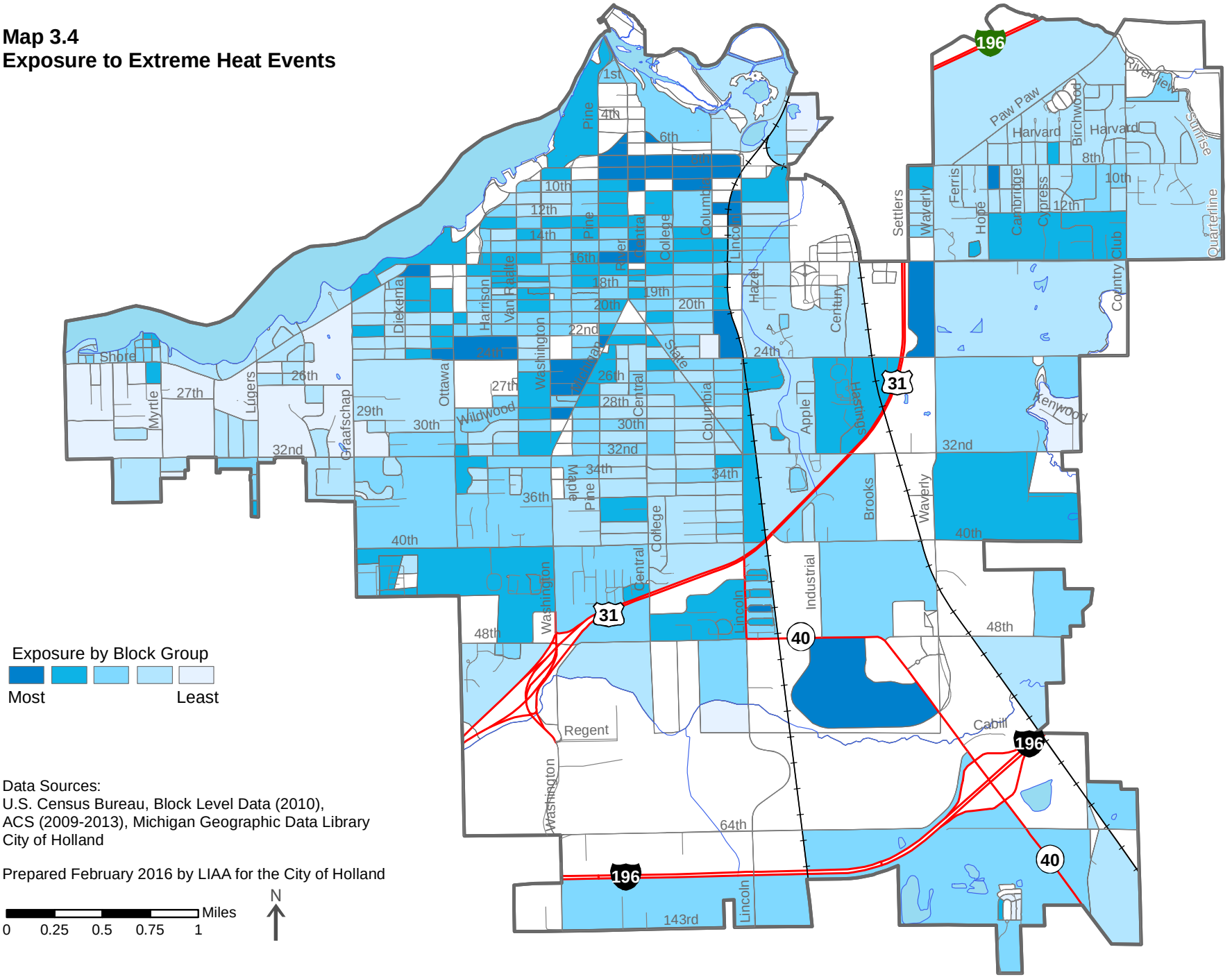
How is Map 3.4 created?

The presence of impervious surfaces and tree canopy were each analyzed at the Census Block level to create Map 3.4. Each factor was mapped as a percentage of total land cover within each Census Block. Five classifications were created using a natural breaks calculation and scored from 1 to 5. In the case of tree canopy, areas with the highest percentage of tree canopy received a 1 and the least vegetated areas received a 5, while areas with the highest percentage of impervious surfaces received a 5 and the least impervious areas received a score of 1. Map 3.4 shows the sum of the index scores for each Census Block. In other words, a high exposure score means the area has more impervious surfaces, fewer trees, and is at greater risk for the Urban Heat Island effect. On the other hand, areas with more tree canopy and fewer impervious surfaces are given a lower exposure score.

26 For more information on the Urban Heat Island effect, see this Environmental Protection Agency's publication. http://www.epa.gov/sites/production/files/2014-06/documents/basicscompendium.pdf

27 For more information on using trees and greenery to reduce the Urban Heat Island effect, see this Environmental Protection Agency's web page. http://www.epa.gov/heat-islands/heat-island-cooling-strategies

Map 3.4
Exposure to Extreme Heat Events



STEP THREE: ASSESSING COMMUNITY VULNERABILITY

In the above steps, a composite heat sensitivity map (where sensitive populations live) and a composite heat exposure map (where environmental risk to extreme heat is greatest) were created. The Population Vulnerable to Extreme Heat Events Map (Map 3.5) is a simple additive combination of the scores within each Census Block on the overall sensitivity map and the overall exposures map. In other words, Map 3.5 shows where higher environmental exposure and higher concentrations of sensitive populations tend to overlap. In general, populations in those areas with the highest composite scores (orange and red) may be particularly vulnerable to extreme heat events.

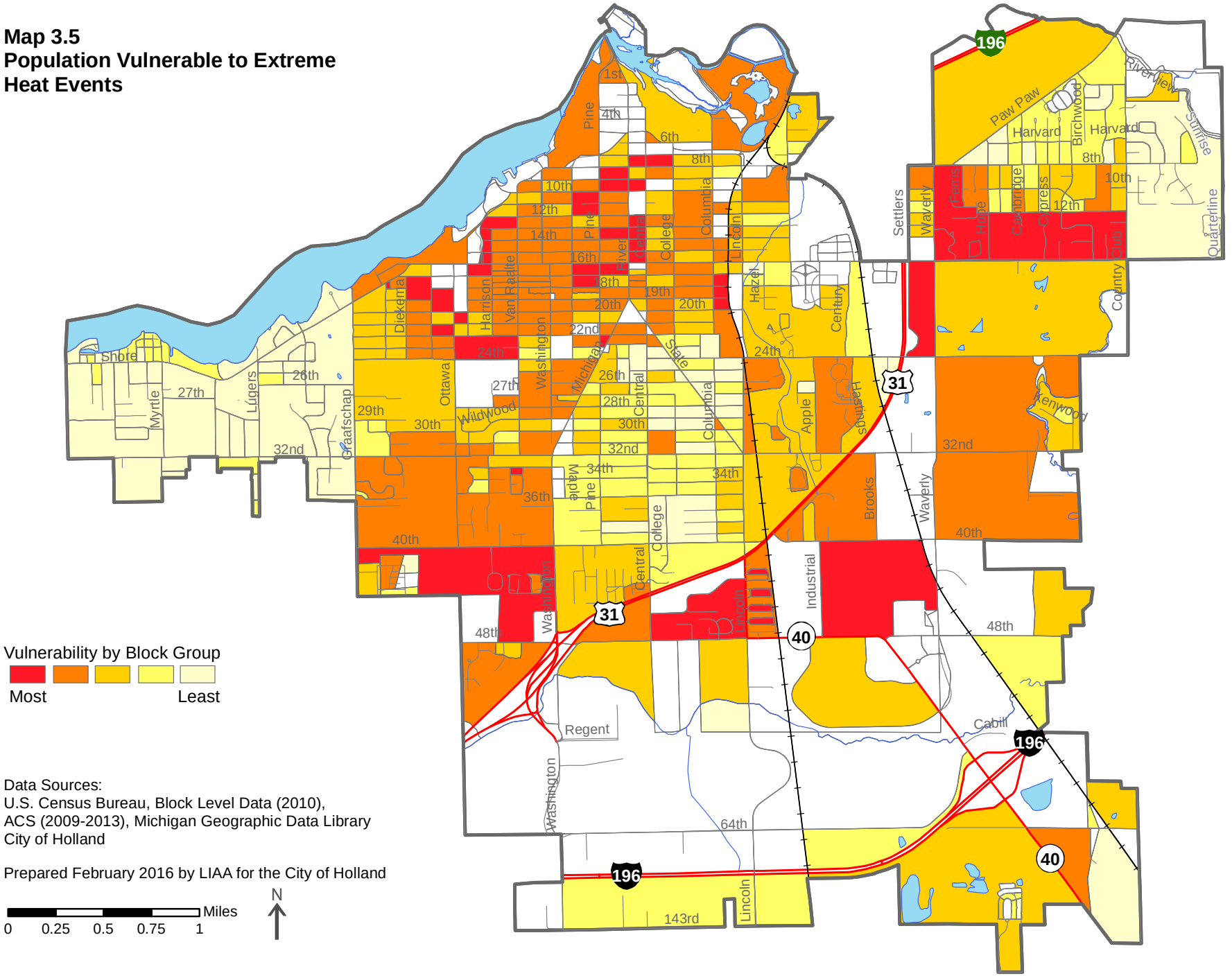
Map 3.5 shows that a number of Census Blocks in the City have high vulnerability scores to extreme heat events. These areas are clustered in several locations including the central neighborhoods, Holland Heights, and areas just south of 40th Street on either side of US-31.

Chapter 4 will discuss how swimming pools, splash pads and natural recreation areas are important, not just for recreation and fun, but for helping residents, especially vulnerable populations like children and seniors, stay cool during summer months. The results of this vulnerability assessment support the expansion of splash pads and other water-related play infrastructure in the City of Holland.

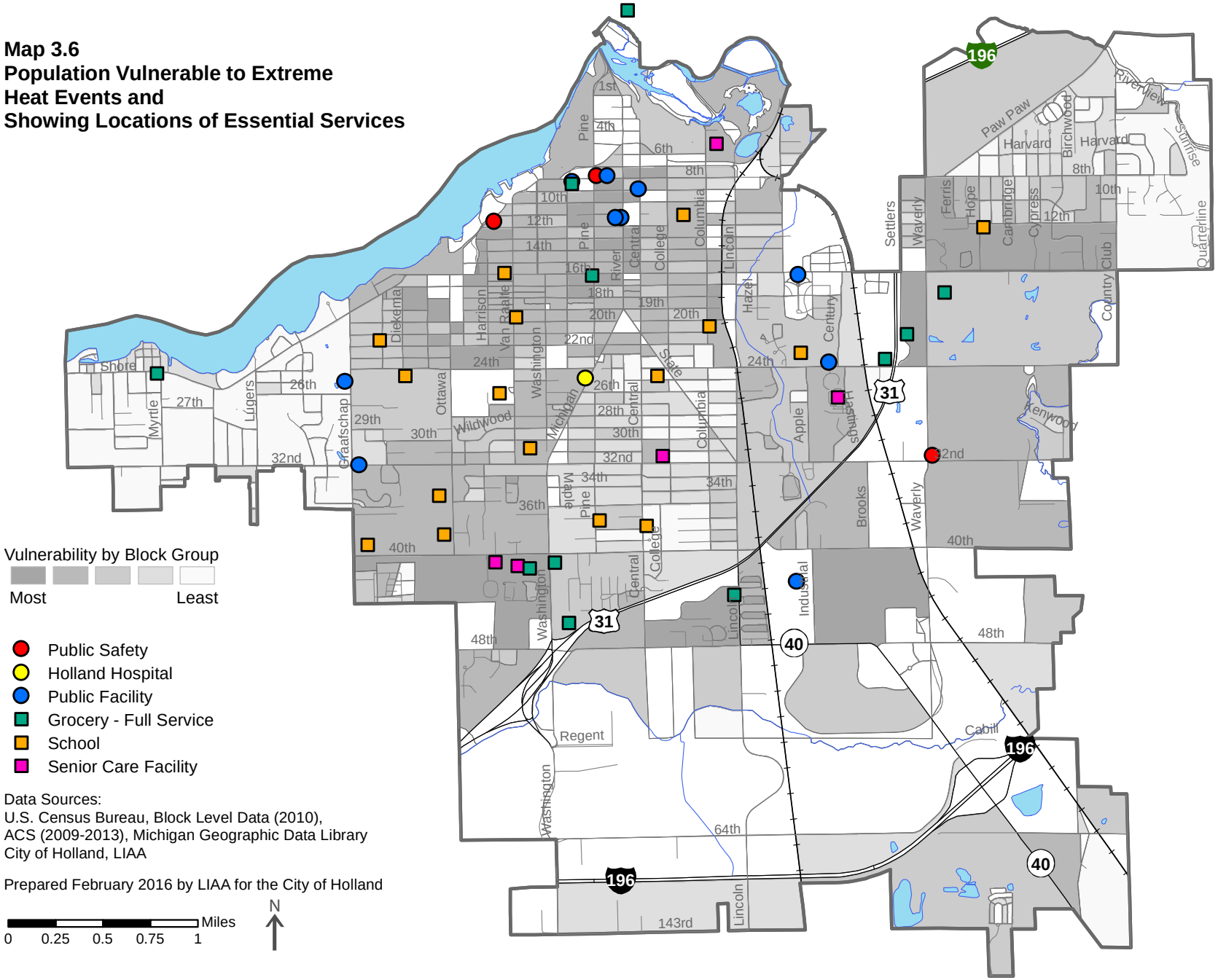
Residents of Holland at the National Night Out in August 2015, holding signs to finish the sentence "In the future, Holland should have ____."

Holland's tree-lined parks provide cooling benefits on hot summer days. Centennial Park, 2011.

Map 3.5
Population Vulnerable to Extreme Heat Events



Map 3.6
Population Vulnerable to Extreme Heat Events and Showing Locations of Essential Services



STEP FOUR: ASSESSING DISTRIBUTION OF SERVICES IN THE CITY OF HOLLAND

Map 3.6 shows the locations of particular facilities and services that should be easily accessible to residents during a heat emergency. During times of extreme weather, disruptions in transportation services, or other community emergencies, it is important that residents, especially those with few resources, are able to access key facilities and services like shelters, schools, and hospitals. The map also shows overall vulnerability to extreme heat. This map can be used by community leaders to identify the overall distribution of services and facilities and guide resources to the most vulnerable areas of the community.

GENERAL RECOMMENDATIONS FOR ADDRESSING VULNERABILITY

There are a number of ways the City of Holland can reduce environmental exposure, provide services to the most sensitive populations, and reduce overall vulnerability. By doing so, Holland will increase its resiliency not only to heat waves, but also to winter storms and other extreme weather events. Chapter 4 of this Plan includes a number of recommendations that support the findings of this vulnerability assessment. In addition, the City may consider the following general recommendations:

- There are, of course, additional organizations that offer services to the community during an emergency such as places of worship, large buildings where groups can congregate, or other non-profit and service organizations. The City should work to build partnerships with such organizations, especially in areas with higher vulnerability, to create a strong network that is ready to respond to emergencies.
- Designate locations for service centers in areas with relatively high vulnerability. In the event of extreme heat waves, designated community cooling centers may provide refuge for sensitive populations and those without access to air conditioning. In general, residents should be able to access cooling centers within a 15-minute walking distance from their place of residence, as excessive time outside during a heat wave can cause heat stress or other issues.
- Investigate the current use of backup power sources, like generators. Work to install backup power sources at emergency shelters in the case of power loss during extreme weather events. Community service centers should be accessible, evenly distributed across the community, open 24 hours, and well-known to residents.
- Community facilities, like the location of utility providers, could be evaluated for their proximity to areas with high environmental risk to extreme heat. The locations of food stores should also be evaluated for their proximity to vulnerable areas. In the event of loss of power or disruption in potable water supplies, it is important to ensure that residents have access to affordable food and drinking water. Maps 4.7 and 4.11 in the next chapter show the locations of community facilities and food locations, respectively.

What services are shown on Map 3.6?

Map 3.6 shows locations of key services within the City of Holland that provide safety, vital socioeconomic activities, and essential services directly to residents during an emergency. The following types of services and facilities are shown on Map 3.6:

- Fire stations and police stations
- Hospitals and clinics
- Schools
- Emergency shelters and emergency operation centers
- Government buildings
- Libraries
- Full-service grocery stores

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CHAPTER 4. WHAT WE WANT TO BE

The primary function of the Master Plan is to guide future development and growth in the City of Holland and to help the community attain its vision for the future. This chapter describes that vision and identifies a series of goals and action steps to help guide decision making. Information in Chapter 4 is presented in a series of major subjects, or action areas, that are important to Holland's future development. Each subject described in this chapter contains background information, key strengths, current issues, and recommendations related to the specific subject.

It is important that the Master Plan reflect the needs and desires of the people of Holland. The Resilient Holland planning process provided the basis for the creation of this Plan's guiding principles, vision, and goals. A series of public meetings, workshops, and stakeholder meetings, discussions with City staff and the City of Holland Planning Commission, and a review of previous local and regional planning efforts formulated the recommendations of this Plan. An overview of the Resilient Holland planning process, the Plan's guiding principles, and relevant past local and regional planning efforts can be found in Chapter 1.

GUIDING PRINCIPLES

As described in Chapter 1, the following guiding principles shaped this Master Plan and describe the desired future for the City of Holland. Throughout this chapter of the Plan, the icon associated with each guiding principle appears alongside relevant information and recommendations.

Inviting all to enjoy...

This guiding principle speaks to Holland's community approach, where every neighbor is welcomed and accepted into government processes. From a thriving Hispanic culture to a college-town experience for students, Holland has something to offer for everyone. This invitation extends beyond Holland's boundaries, incorporating regional efforts to move the West Michigan region forward.

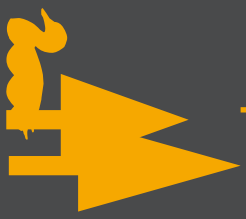
a thriving...

This guiding principle emphasizes Holland's heritage of unique, interesting places, and cultural pride. A thriving Holland has carefully chosen, high-quality standards for future development, a connected and vibrant downtown, and vital neighborhoods. This guiding principle encompasses themes of walkability, placemaking, and building typologies that will be discussed throughout the plan.

and resilient Holland.

This guiding principle ties resiliency to many aspects of Holland. By ensuring its economic portfolio and environmental strategies are diverse, a forward-facing Holland can react and adapt to changes in the global or national economy and prepare for changes in climate over the long term.

Public input formed the basis for the goals and action steps in this chapter! Look for summaries of the public's input in the orange boxes throughout this chapter.

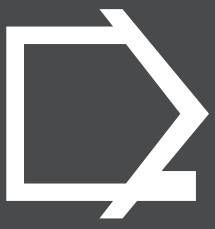


Environment

Transportation

Public Services

Parks and Recreation



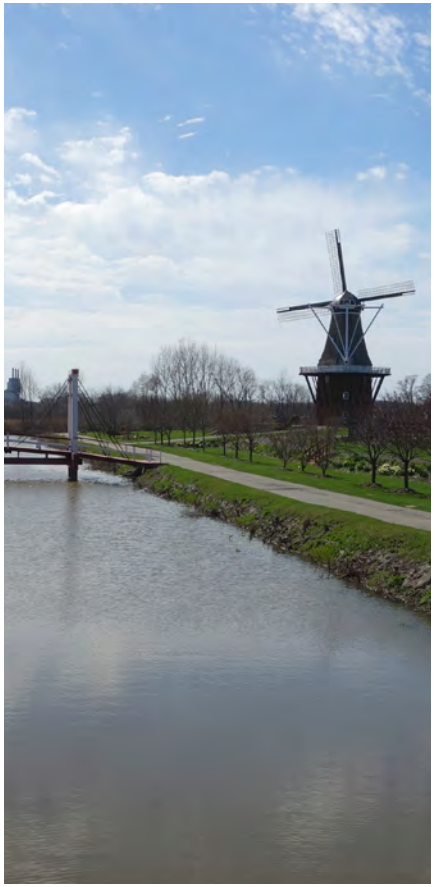
Housing

Urban Design

Food and Agriculture

Economy

Social Services and Community Health



(Left) Windmill Island in Spring 2015. (Right) Fall trees in a Holland neighborhood, 2011.

Environment

Holland is located along the shore of Lake Macatawa and the Macatawa River, just minutes from the “Big Lake,” Lake Michigan. Historically, the water quality of “Lake Mac” suffered, in part because communities did not understand the impact land use can have on water quality. Today, the City continues to work with regional partners to restore water quality. Holland is also home to beautiful trees and woodlands, with a network of urban forests stretching through the City’s central neighborhoods and into its many natural areas. The City’s management of this resource has earned Holland the designation of a Tree City USA, and the City is taking steps to replenish trees and ensure their health. The action steps in this section are designed to protect and preserve Holland’s immense natural resources and support regionally identified goals.

GOAL

The City of Holland's natural environment will be clean and accessible.

POTENTIAL ACTION STEPS

- Inventory existing wetlands, streams and other natural features in the City.
- Encourage the use of Low Impact Development strategies in new developments, public projects and buffers around lakes, wetlands and drains. Low impact development strategies emphasize conservation and use of onsite natural features to protect water quality.
- Improve public access to natural features as appropriate including pedestrian trails and kayak launches.
- Improve street-ends and increase public access along Lake Macatawa.
- Continue regular street-sweeping to reduce pollutants in water runoff from roads.
- Continue to participate in the Tree City USA program as well as the America in Bloom program with an overall emphasis of continuing work to green and beautify the City.
- Plant native tree species that will thrive in West Michigan's climate and where appropriate strive to maintain existing tree groves.
- Increase awareness of recycling services and support efforts to create a City composting program for residents.
- Reward and recognize businesses with sustainable practices.
- Educate the public on the many benefits of green infrastructure by using public properties as demonstration projects.

Watershed Management

The City of Holland is within the Lake Macatawa Watershed, meaning that runoff from the City drains into Lake Macatawa and the Macatawa River. Lake Macatawa provides residents and visitors with a number of opportunities for recreation and industry, but unfortunately, Lake Macatawa also faces poor beach quality and undesirable levels of E. Coli, phosphorus, and algae.[28]

Regional discussions are an important tool for addressing regional natural resource issues such as water quality, and the City has partnered with a number of other communities to address water quality in Lake Macatawa. A plan to foster better watershed management that includes managing wetlands, invasive species, and water quality was developed through the Macatawa Area Coordinating Council (MACC), a metropolitan planning organization (MPO), in 2012. The plan identified the causes of the water quality issues in Lake Macatawa and prioritized action steps for communities in the Watershed to address. The priorities of the Macatawa Watershed Management plan are listed below.

REDUCE PHOSPHORUS AND OTHER SEDIMENTS

Lake Macatawa has excessive phosphorus levels, coming mainly from agricultural uses outside of the City of Holland. Phosphorus in water acts as a nutrient, causing plants to grow and absorb the oxygen in the water, which reduces the oxygen available for fish and other aquatic life. The Michigan Department of Environmental Quality has determined that phosphorus levels in Lake Macatawa must be reduced by at least 70% in order to meet water quality standards.

The Watershed Management Plan determined that agricultural uses elsewhere in the Watershed are responsible for much of the phosphorus loading in Lake Macatawa. However, urban areas also contribute to this issue. Lack of riparian buffers, stormwater runoff, and stream bank erosion from residential and commercial uses all release some phosphorus and are of moderate to high concern in the plan.

SLOW AND TREAT STORMWATER

Impervious surfaces are well studied for their negative impact on stormwater quality.[29] During a heavy rain event, water falls onto parking lots, streets, buildings, and driveways. If water is unable to percolate into the soil, it instead runs off into drains or other infrastructure to be released into lakes and streams. This process is called “direct discharge” and has benefits for reducing the risk of flooding. However, water flowing off impervious surfaces picks up pollutants and heat from the ground and contributes to poor water quality in lakes and streams.

Taking steps to improve water quality is of great importance during a time of changing climate in West Michigan.

For example, allocating resources to preserve and plant trees, which help filter toxins from stormwater, is an important step in preparing for increased incidents of extreme heat and drought, which can harm trees and other vegetation. Water quality is also a climate-related concern, as generally warmer water temperatures can trigger algae growth and exacerbate existing water quality concerns. A number of the goals and action steps in this chapter improve the community’s resiliency to climate-related heat and rain events, and are designed to sustain Holland’s vibrant community over the long-term.

28 For more information see Project Clarity’s 2015 Comprehensive Restoration Plan and 2015 Water Quality Dashboard and project
29 Many resources are available to study this issue, including the USGS website at http://water.usgs.gov/edu/impervious.html

RESTORE AND PROTECT WETLANDS

Wetlands naturally absorb and hold stormwater, provide habitat for fish and other wildlife, and are able to improve water quality by filtering out pollutants.[30] However, wetlands historically were misunderstood and treated as marshland to be drained and filled. Like many communities in the State of Michigan, very few wetlands remain in the City of Holland, and many are threatened by invasive species, warming water temperatures, and other issues. However, the Michigan Department of Environmental Quality studied the wetlands in the watershed and determined that though few wetlands remain, many remain high functioning. The City should identify the locations of existing wetlands and protect, expand, and possibly restore wetlands where appropriate.

In many ways, the City is already working to address water quality issues. For example, the City has developed a conceptual plan to use street ends that intersect Lake Macatawa to better treat and manage stormwater, in addition to improving public access to the water. The goals and action steps of this Plan will strengthen regional efforts to address water quality, but also have a number of other benefits, like reducing the risk of localized flooding in urban areas. Many actions will require partnerships between the City Transportation Services Department, County Drain Offices, and others to implement.

A Holland Resident holds a sign at the National Night Out in August 2015 in response to the question, "What should Holland have in the future?"

Low Impact Development

Many of the action steps in this section are examples of Low Impact Development strategies. Low Impact Development, generally, is a term for stormwater control that promotes managing stormwater wherever it falls, rather than collecting stormwater and removing it through pipes. Low Impact Development seeks to mimic a site's predevelopment hydrology and promote the slow absorption of stormwater through retention and percolation. Low Impact Development helps protect water quality by reducing flooding, property damage, soil erosion, degradation of stream channels, and surface water pollution. See the box on this page for examples of Low Impact Development.

This section's goal and its associated action steps are designed to help the City of Holland develop an appropriate strategy to implement Low Impact Development techniques. Generally, the City should work to develop comprehensive stormwater control regulations, capital improvement projects, and guidelines for new development that incorporate the use of Low Impact Development techniques.

STRATEGIC LOCATIONS FOR LOW IMPACT DEVELOPMENT

While there are many Low Impact Development strategies that could apply broadly to Holland, it is helpful to identify priority areas where more specific suitability analysis should be done. LIAA collaborated with the University of Michigan's Taubman College of Architecture and Urban Planning to perform the following steps:

What is Low Impact Development?

Low Impact Development, generally, includes strategies to enhance the ground's ability to absorb and filter stormwater. Examples of Low Impact Development include:

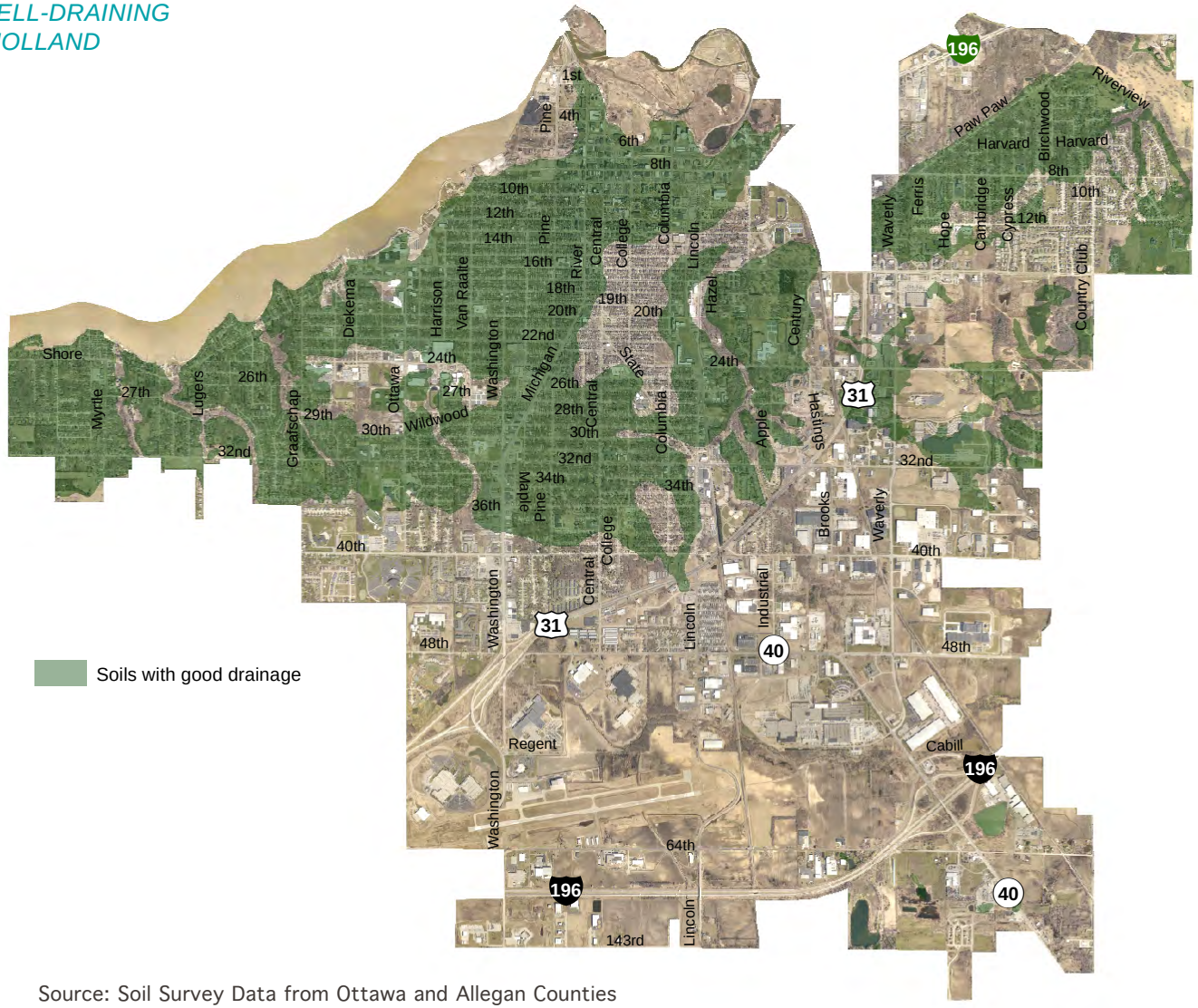
- Clustering development on a site away from sensitive landscapes
- Pervious surfaces
- Constructed wetlands
- Underground stormwater retention
- Riparian buffers and native vegetation
- Rain gardens
- Infiltration trenches and catch basins

30 For more information on wetland loss in the State of Michigan, see the MDNR website at: http://www.michigan.gov/dnr/0,4570,7-153-10370_22664-61132--,00.html

STEP ONE: IDENTIFY SOIL TYPES

Well-draining soil types are a requirement for many Low Impact Development strategies that seek to allow the ground to naturally absorb stormwater. Map 4.1 shows the areas of Holland where soils naturally absorb and drain at high rates. It is important to note, however, that throughout Holland's history, these natural soil types may have been altered by construction and infrastructure. This work is meant to be a preliminary attempt to locate areas in the City that may best support Low Impact Development, but a site-specific study, including testing soil permeability, is required before Low Impact Development is implemented.

MAP 4.1 WELL-DRAINING SOILS IN HOLLAND

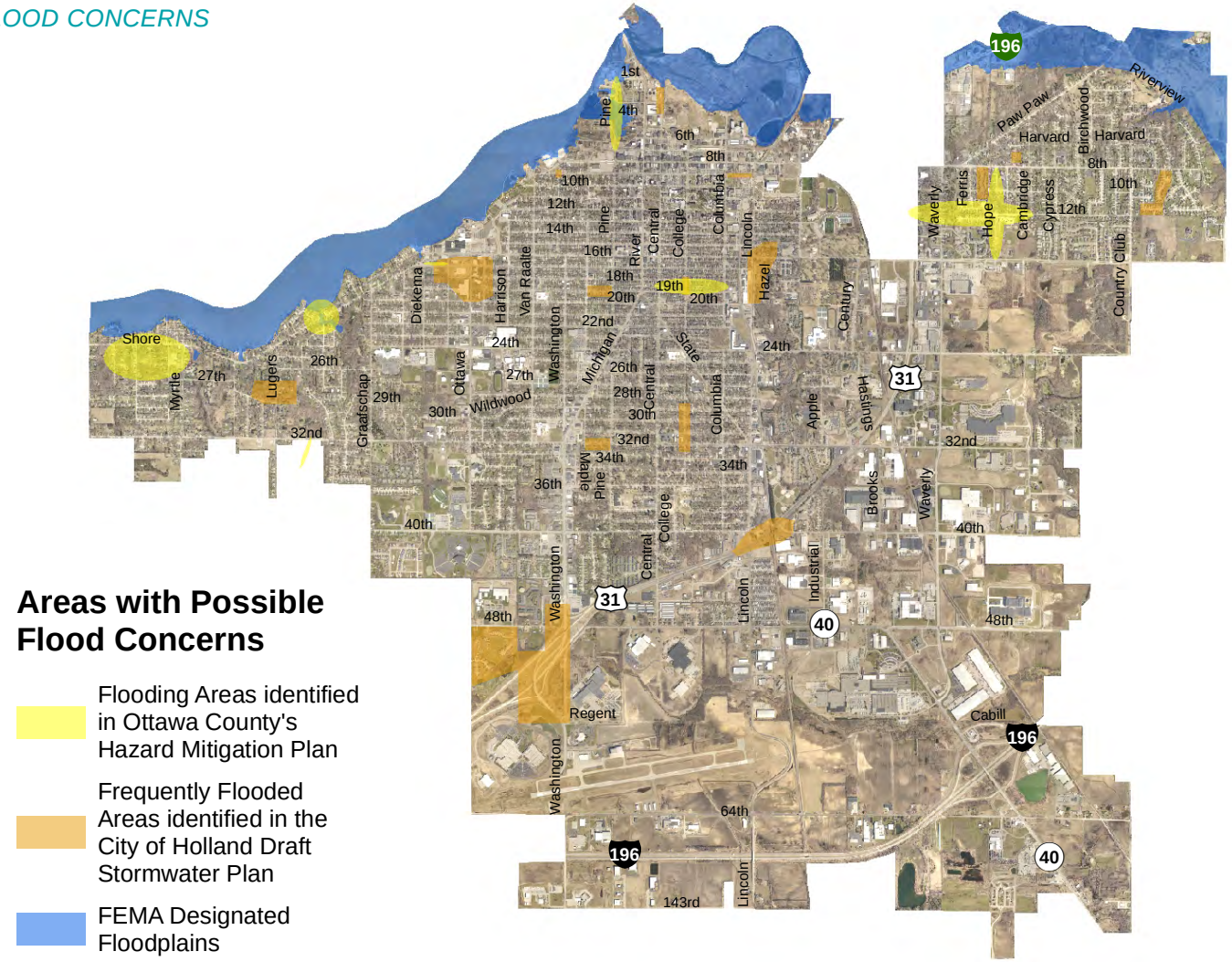


Source: Soil Survey Data from Ottawa and Allegan Counties

STEP TWO: IDENTIFY AREAS WITH FLOOD HISTORY

The next step to identify strategic locations for Low Impact Development requires identifying areas that may have flooded in the past. When flooding occurs, it may be because elevation is low, infrastructure is insufficient, or other problems exist. Placing Low Impact Development installations where flooding already occurs is a good way to reduce flood risk, treat the most stormwater possible, and may even reduce the need for expensive infrastructure upgrades. Flood data in Map 4.2 was obtained from the Ottawa County Hazard Mitigation Plan, the City of Holland Stormwater Master Plan, and FEMA's Flood Insurance Rate Map for Holland. This data does not necessarily indicate that a flood has occurred at these locations, and as the City makes changes to its drainage system through capital improvement projects and other infrastructure improvements, this map may change.

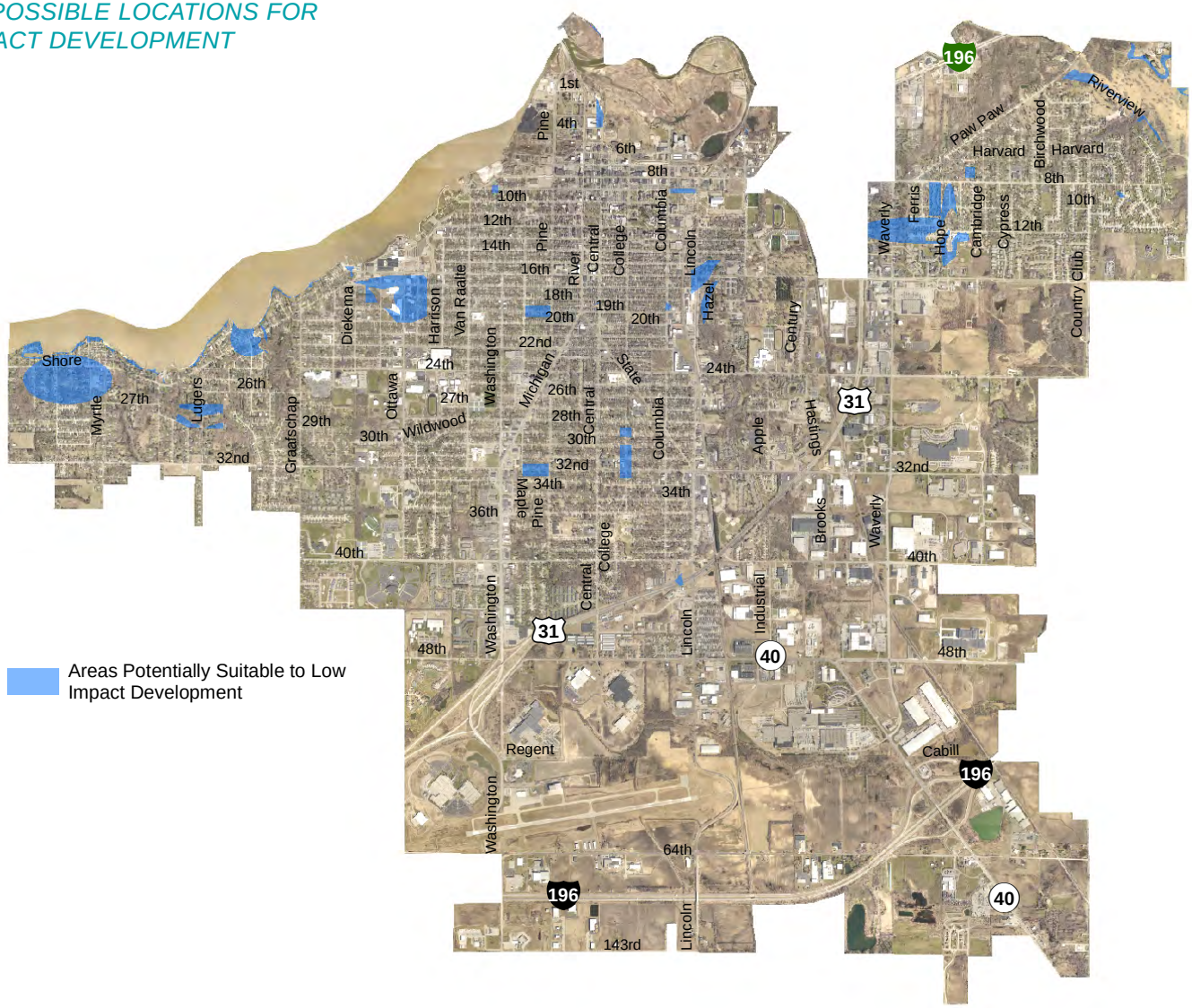
MAP 4.2 AREAS WITH POSSIBLE FLOOD CONCERNS



STEP THREE: DEFINE STRATEGIC LOCATIONS FOR LOW IMPACT DEVELOPMENT

Lastly, by combining Maps 4.1 and 4.2, we can demonstrate that there are several areas in the City with a history of localized flooding and with soil types that are likely to support Low Impact Development. These areas are highlighted in Map 4.3 and include a number of corridors in neighborhoods near downtown and the shoreline. A number of these areas are fully built out with homes and other development. This map supports a long-term vision to incorporate Low Impact Development strategies as opportunities for redevelopment or capital improvement projects arise in the future. Additionally, this map may serve as a basis for the City to identify areas where future suitability studies and engineering studies could focus.

MAP 4.3 POSSIBLE LOCATIONS FOR LOW IMPACT DEVELOPMENT



Tree Canopy

Holland's beautiful street trees form a network of urban forests and are a source of pride for the community, and were mentioned again and again during the public process for this Master Plan. Not only do trees provide aesthetic benefits, but strategic tree planting can help stabilize stream banks and prevent erosion, keep water and land temperatures cool, provide wildlife habitat, improve air quality, and absorb and treat stormwater to help reduce flooding and stormwater runoff.

Research has shown that communities can best capture the many benefits of trees when tree coverage exceeds 40% of the community.[31] The City of Holland currently is designated a Tree City USA, a program that requires the City to reserve funding for tree maintenance and planting, implement a tree care ordinance, and have an active City Tree Board or Department, among other requirements.

The City of Holland, like many Michigan communities, has lost all of its ash trees due to the Emerald Ash Borer, an invasive beetle that decimated the ash population throughout the Midwest. Replacing the trees lost to this infestation and also trees lost to old age is a priority for the City Parks and Recreation Department. Planting trees with climate projections in mind will help the City fortify against extreme heat, heavy rain, and a generally warming climate over the next 50 to 100 years.

Benefits of Trees

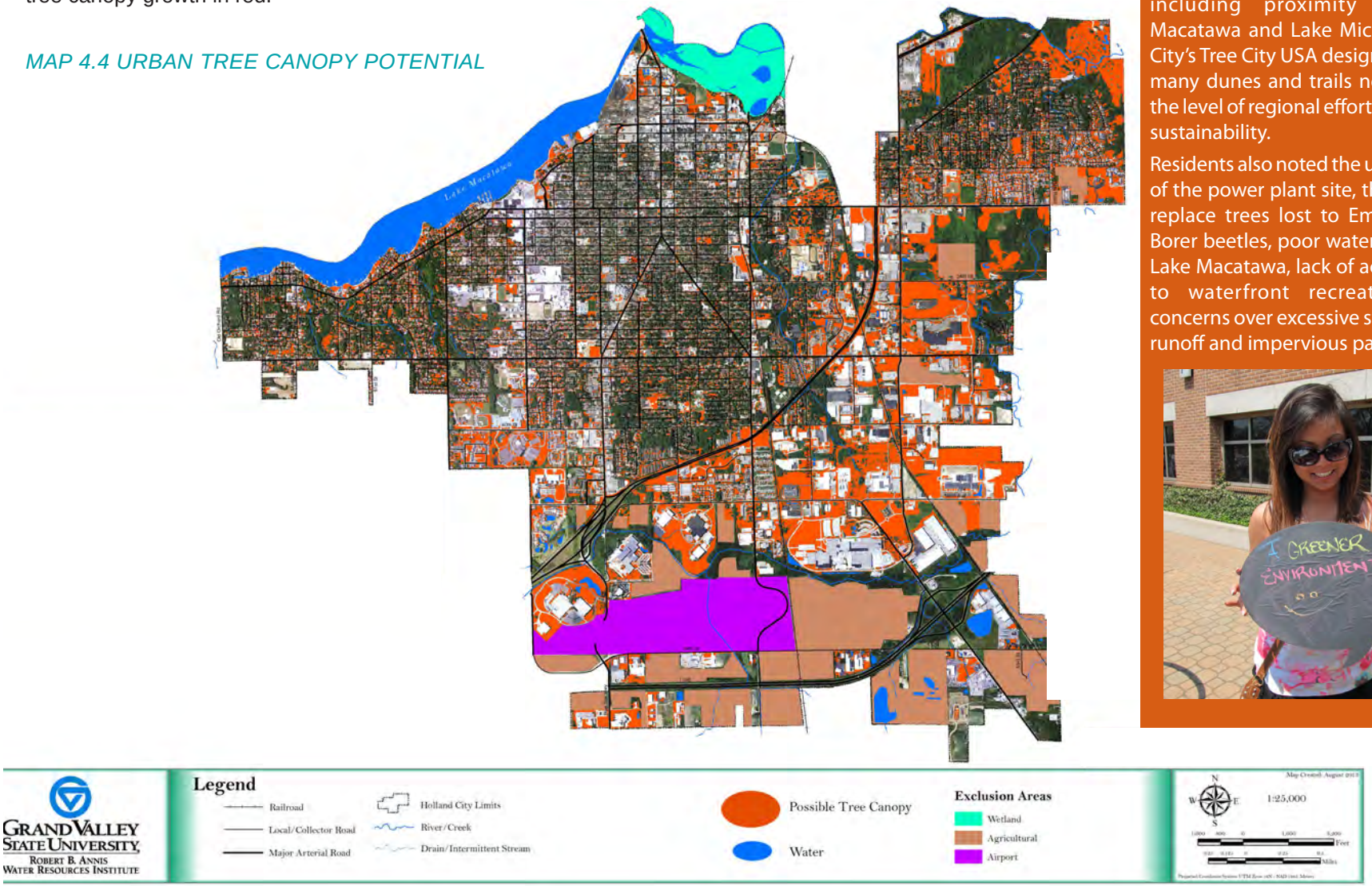
Trees provide many benefits to the ecosystem of a community, as noted in this chapter. Trees also have been studied for the social and economic advantages they provide to a community. These include:

- Trees planted strategically near homes and businesses can reduce energy costs to cool and heat buildings.
- Trees may even have a positive impact on property values, as some studies have shown trees are correlated with a 15% increase in property values.
- Tree-lined streets tend to slow the pace of traffic and encourage safety for pedestrians and bicyclists.
- Connections to nature reduce stress. It's no surprise that several studies have shown that tree plantings are correlated with a decrease in crime.
- Tree plantings near highways and major traffic routes can reduce noise pollution in residential neighborhoods.

31 See the American Forestry Association website at: http://www.americanforests.org/our-programs/urbanforests/whywecare/

The City of Holland currently has 24.2% coverage of tree canopy, according to the Urban Tree Canopy Assessment conducted in 2013 by Grand Valley State University. The Assessment also determined that Holland's tree canopy may be able to increase by 60%, or an additional 1,687 acres. The action steps in this section are designed to help the City protect current tree canopy coverage and work to increase the overall percentage of tree canopy coverage. Map 4.4, excerpted from the Urban Tree Canopy Assessment conducted for the City, shows possible areas for new tree canopy growth in red.

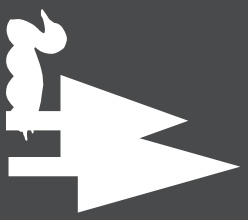
MAP 4.4 URBAN TREE CANOPY POTENTIAL



PUBLIC INPUT SUMMARY

During the public process for this Master Plan, residents identified many environmental assets including proximity to Lake Macatawa and Lake Michigan, the City's Tree City USA designation, the many dunes and trails nearby, and the level of regional efforts to ensure sustainability.

Residents also noted the uncertainty of the power plant site, the need to replace trees lost to Emerald Ash Borer beetles, poor water quality in Lake Macatawa, lack of accessibility to waterfront recreation, and concerns over excessive stormwater runoff and impervious pavement.

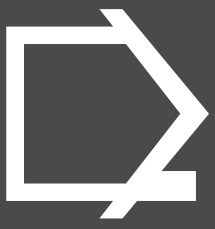


Environment

Transportation

Public Services

Parks and Recreation



Housing

Urban Design

Food and Agriculture

Economy

Social Services and Community Health

Transportation

Transportation played a vital role in the development and growth of Holland. Water and rail transportation routes allowed industry to flourish during the City's early years and, as the popularity of the automobile grew, development patterns changed to accommodate cars and their drivers. The automobile is still the primary mode of transportation in Holland, but residents, visitors, and businesses are also served by a network of sidewalks, other non-motorized transportation routes, and the Macatawa Area Express (MAX) Transit system.

GOAL

The City of Holland will have a safe, connected transportation system that serves multiple modes.

POTENTIAL ACTION STEPS

- Ensure that all City streets are well maintained and safe for all forms of transportation. Continue to integrate Complete Streets guidelines to accommodate all users.
- Improve intersections to promote walkability and bikeability.
- Continued investment in bike and pedestrian infrastructure including bike lanes and sidewalks.
- Investigate public "bikeshare" or bike rental system.
- Provide education on bicycle safety.
- Provide non-motorized connections to regional trail systems.
- Ensure pedestrian infrastructure accommodate all users.
- Install new sidewalks in areas where there are gaps in the sidewalk system.
- Maintain and expand heated sidewalks in the Downtown area.
- Consider recruiting neighborhood groups to clean and keep clear neighborhood sidewalks.
- Advocate for increased frequency of public bus service throughout the City.
- Advocate for amenities at transit stops to include benches and shelters and for increased maintenance.
- Continue to work with the Macatawa Area Express (MAX) and Macatawa Area Coordinating Council (MACC) to ensure that transit service meets the needs of residents.
- Encourage transit connections to communities in West Michigan and beyond.
- Retain and expand current train connections with a special emphasis on potential commuter rail opportunities between Holland and Grand Rapids.
- Support the continued investment in the West Michigan Regional Airport for both corporate and general aviation.
- Provide traffic calming measures to slow vehicle speeds and increase safety for pedestrians and cyclists.
- Support plans to improve the safety level and appearance of Chicago Drive and for amenities that will make the street more pedestrian friendly.

Transportation Planning and the MACC

The Macatawa Area Coordinating Council (MACC) is a metropolitan planning organization (MPO) made up of representatives from local governments and transportation agencies that makes transportation policies for the area. The MACC develops and maintains the Long-Range Transportation Plan (LRTP) for the area and develops a Transportation Improvement Program (TIP) based on the goals of the LRTP. The MACC's 2014 *Non-Motorized Plan* and *2040 Long-Range Transportation Plan*, approved in 2015, provide inventories of existing transportation systems, goals for the improvement of these systems, and specific project recommendations. This Master Plan supports the continued pursuit of the goals and recommendations of these plans and highlights some of their key findings within this section. For further information about transportation-related issues in the City of Holland, please refer to the MACC's *2040 Long-Range Transportation Plan* and 2014 Draft *Non-Motorized Plan*.

Street and Highway Network

Holland's street network is primarily organized in a traditional, rectangular grid pattern. Some streets are angled to better relate to natural features and waterways. Block sizes in the older portions of the City are smaller, with streets spaced closely together. In more recently developed parts of Holland, particularly the eastern and southern portions of the City, streets are more widely spaced and curvilinear in form, similar to newer street network patterns throughout the country. The design and intensity of streets within the City range from narrow two-lane streets designed to serve residential neighborhoods to a four-lane freeway that provides connections to the regional and national highway networks.

MAJOR HIGHWAYS AND STREETS IN HOLLAND

- **I-196** - An interstate freeway that provides connections between Grand Rapids to the northeast, I-94 to the south, and the regional and national highway system.
- **US-31** - A national highway that provides connections to northern Michigan and south into Indiana.
- **M-40** - A state highway that connects Holland to other communities in southwest Michigan.
- **River Avenue, Pine Avenue, Lincoln Avenue, Michigan Avenue, State Street, Washington Avenue, Chicago Drive, 7th Street, 8th Street, 9th Street, 16th Street, 24th Street, 32nd Street, 40th Street** - These are just some of the principal arterial streets within the City that serve as important connectors within the City and provide access to major traffic generators.

COMPLETE STREETS

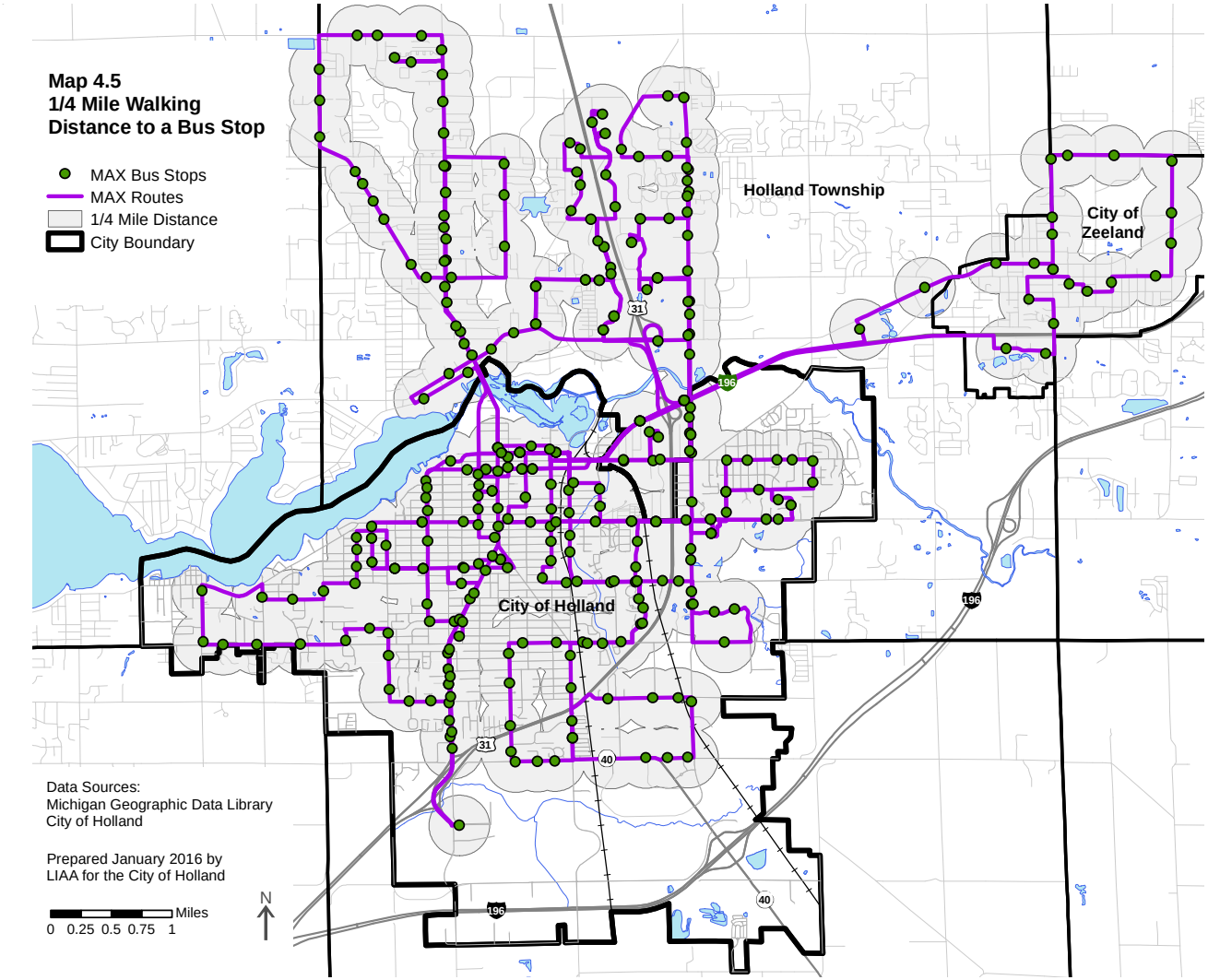
The Complete Streets movement has been gaining increased attention in communities across the county. The State of Michigan requires local transportation agencies to consider all street users in all phases of transportation projects through Complete Streets legislation passed in 2010. State of Michigan Public Act 135 defines Complete Streets as "roadways planned, designed, and constructed to provide appropriate access to all legal users, whether by car, truck, transit, assistive device, foot or bicycle." It is important to consider all modes of transportation when designing and constructing transportation improvements to provide equitable opportunities for those with differing transportation needs, financial means, and physical abilities. Additionally, integrating Complete Streets practices can help encourage safe and active transportation, decrease pollution, and reduce the incidence of childhood obesity, social isolation, and serious health conditions.* The City of Holland adopted a Complete Streets Resolution in 2011, pledging to consider and implement, to the greatest extent possible, Complete Streets components in future transportation projects.

* American Planning Association Magazine, October 2013 Issue, Public Health Policy and Law, p.5

Public Transportation

The Macatawa Area Express (MAX) provides public bus service to the City of Holland, the City of Zeeland, and Holland Charter Township on both a demand/response (dial-a-ride) and fixed route basis. The eight fixed routes run on an hourly schedule and provide service within Holland and between Holland, Zeeland, and parts of Holland Charter Township. Annual MAX ridership is roughly 470,000.[32] Input received during the Resilient Holland planning process indicated a desire among Holland residents for public transportation connections to other communities in the region. The MACC has investigated the feasibility of transit routes between Holland and other communities, most notably Grand Rapids, and determined that these services are not feasible at this time due to low projected ridership. It has also been noted that the feasibility of intercity bus service could change in the future and is an option to continue investigating.[33]

Many residents during this Master Planning process expressed desire to use MAX fixed route services if the frequency of buses was increased. Map 4.5 shows that a majority of the City's neighborhoods, commercial areas, and public spaces are within close walking distance (1/4 mile)



32 Macatawa Area Coordinating Council. 2040 Long Range Transportation Plan. p. 55-58. 27 April, 2015.
33 Macatawa Area Coordinating Council. 2040 Long Range Transportation Plan. p. 59-60. 27 April, 2015.

of a bus stop and that the fixed routes provide good access throughout the City. The proliferation of accessible transit stops and good route coverage indicates that these factors are unlikely to prevent people from using transit services. Should the convenience of the transit system be improved by increasing frequency, ridership is likely to increase and potentially reduce vehicular traffic volumes.

Passenger Rail and Air Service

PASSENGER RAIL SERVICE

Passenger rail service is provided in Holland by Amtrak's Pere Marquette Line as a stop between Grand Rapids and Chicago. Currently, one round trip is made each day, with passengers accessing the train at the Louis Padnos Transportation Center. The Transportation Center also serves riders of the MAX system and Indian Trails bus services, which provides bus connections to other communities in the region.[34]

PASSENGER AIR SERVICE

West Michigan Regional Airport serves Holland and the surrounding area with its fixed base operator, Tulip City Air Service, providing charter flights. A large majority of the passengers utilizing these services are from local businesses and organizations. The airport is owned and managed by the West Michigan Airport Authority, made up of representatives from Holland, the City of Zeeland, and Park Township.[35]

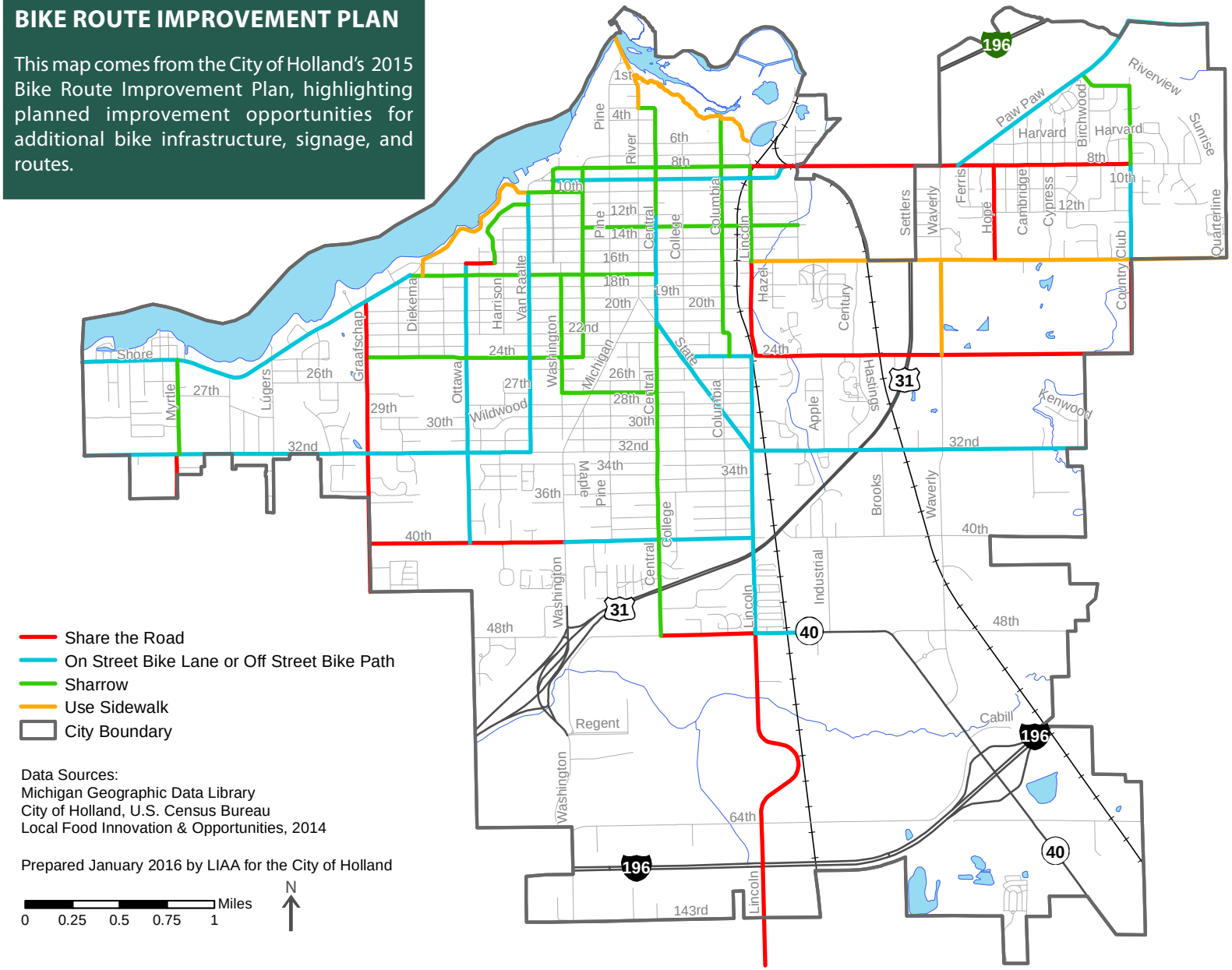
Non-Motorized Transportation

The City of Holland has a diverse non-motorized transportation network that serves residents and visitors by linking neighborhoods, business districts, and employment centers. The City sidewalk network consists of roughly 207 miles of paved sidewalks that line a majority of the City's streets, providing pedestrian connections to most neighborhoods, commercial areas, parks, and employment centers. Additionally, 13.6 miles of shared-use paths and 3.5 miles of paved shoulders or bike lanes are provided within the City.[36] While the non-motorized transportation network within the City is generally robust, there are certain locations where additional infrastructure is needed and safety could be improved. As it plans for the future, the City of Holland is committed to providing a safe, efficient, and well-connected system of transportation facilities for pedestrians, bicyclists, and other non-motorized uses. Specific recommendations for improvements to the non-motorized transportation network can be found in the Macatawa Area Coordinating Council's Non-motorized Plan and the City of Holland Bicycle and Pedestrian Transportation Plan. The Bicycle and Pedestrian Plan is in the process of being updated, and Map 4.6 shows the improvement areas identified in the 2015 Draft update to this plan.

34 Macatawa Area Coordinating Council. 2040 Long Range Transportation Plan. p. 69. 27 April, 2015.
35 For more information on the West Michigan Regional Airport, see http://westmichiganregionalairport.com/meet-the-wmaa/
36 Macatawa Area Coordinating Council. Non-motorized Plan. October, 2014.

MAP 4.6
BIKE ROUTE IMPROVEMENT PLAN

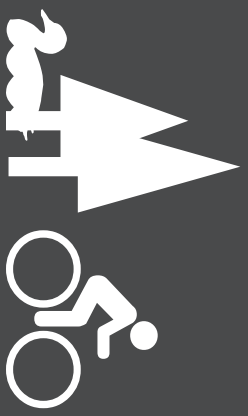
This map comes from the City of Holland's 2015 Bike Route Improvement Plan, highlighting planned improvement opportunities for additional bike infrastructure, signage, and routes.



PUBLIC INPUT SUMMARY

Residents had many things to say about transportation in Holland! In general, Holland residents value the regional transportation network, especially through services like Amtrak, and cite easy movement to and from the area. Residents also cited infrastructure like the Downtown sidewalk snowmelt system as an asset. In general, residents would like to see an increase in non-motorized transportation connectivity and options, including pedestrian and bike infrastructure and long-distance trail connections. Residents also would like to ride the bus to more places, more frequently. Other improvements the public recommended include more charging stations for electric cars, maps showing biking and walking trails, and a bike rental program.

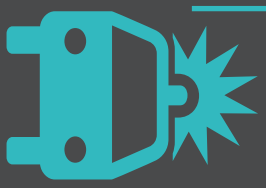
Hollanders holding signs in response to the question, "In the future, what should Holland have?" For more on the civic engagement for this plan, see Chapter 1.



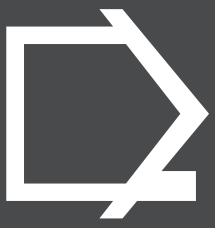
Environment

Transportation

Public Services



Parks and Recreation



Housing

Urban Design

Food and Agriculture

Economy

Social Services and Community Health

Public Services

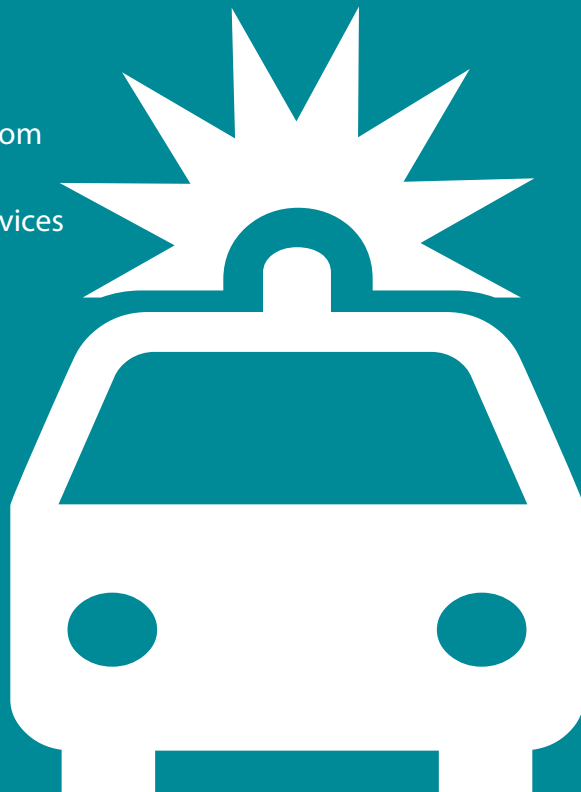
Holland offers a wide variety of municipal services to its residents and businesses and operates a number of public facilities. Additionally, services and facilities provided by entities other than the City, such as schools, play an important role in the lives of Holland's citizens. Growth and redevelopment in the City is impacted by the quality, cost, and availability of these services as people and businesses decide to locate where their needs are well met. Community services are also a major factor in the quality of life of City residents.

GOAL

The City of Holland's public services will be high quality, efficient, and cost effective.

POTENTIAL ACTION STEPS

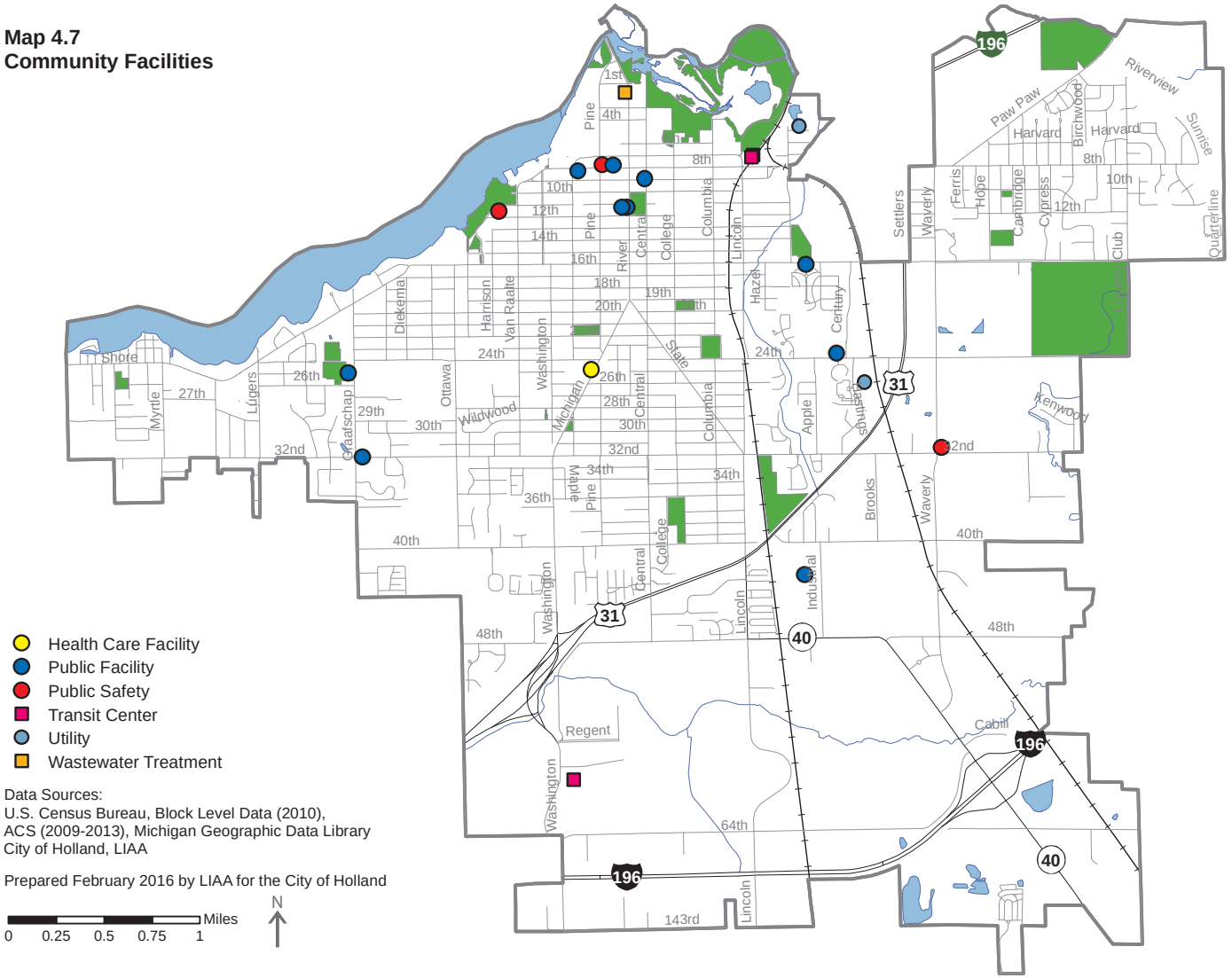
- Continue to proactively plan for future improvement, maintenance, and expansion of public utilities and infrastructure and ensure that it complements and enhances the area.
- Ensure that all residents and businesses have fiber optic broadband access.
- Work with the Holland Board of Public Works to create Wi-Fi zones in certain areas of the City.
- Continue to implement the recommendations of the Community Energy Plan.
- Continue to educate citizens and encourage reductions in energy consumption.
- Increase efficiency in homes through neighborhood-focused renovation programs and incentives.
- Pursue the provision of district heating services in higher density neighborhoods using heat recovered from local power generation.
- Continue to provide easily accessible municipal services including an excellent level of police and fire services to meet the needs and expectations of the community.
- Continue to expand the City snowmelt system throughout Downtown and the surrounding residential neighborhoods.



Community Facilities and Services

The City of Holland has an elected Mayor and City Council with nine total members. Day-to-day operation of the City is the responsibility of the City Manager. To offer specialized services to residents and businesses, the City has a variety of departments, employees, and advisory bodies that oversee and manage the various aspects of the City's operation. City departments include Management & Administrative Services, Community & Neighborhood Services, Parks & Recreation, Fiscal Services, Public Safety, and Transportation. Holland City Hall and several City department offices are located at 270 S. River Avenue Map 4.7 shows the locations of the key community facilities within the City of Holland.

Map 4.7
Community Facilities



PUBLIC SAFETY

The Public Safety department provides full-time fire fighting, police, and emergency medical services within the City of Holland. Fire fighting services are provided from three stations located on Waverly Road, Kollen Park Drive, and a joint City of Holland and Park Township facility located on 160th Avenue in Park Township. The Holland Department of Public Safety Police Operations is located at 89 West 8th Street.

UTILITIES

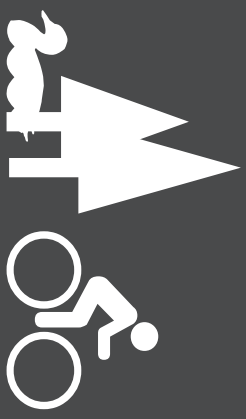
The Holland Board of Public Works (HBPW), a community-owned utility, provides electric, water, and wastewater treatment services within the City. Additionally, the HBPW provides fiber optic communications service to residents and businesses. The HBPW seeks to provide reliable, cost-effective utility services while maintaining environmental responsibility.[37]

Holland's water distribution system includes a water treatment plant on Lake Michigan, four water storage tanks, five pump stations, and 240 miles of water main lines. The water treatment plant has the capacity to treat 38.5 million gallons of water per day. Water service is provided to the City of Holland and some portions of Park, Laketown, and Holland Charter Townships, as well as to the City of Zeeland. The HBPW also provides wastewater treatment for the City of Holland and parts of Park, Laketown, Fillmore, Zeeland and Holland Charter Townships. The sanitary sewer system is completely separated from the storm sewer system and contains nearly 190 miles of sanitary sewer pipe. Wastewater is treated at the Water Reclamation Facility on S. River Avenue and is ultimately released into Lake Macatawa.

The HBPW generates, transmits, and distributes electricity to customers in Holland and portions of the surrounding townships. Currently, electricity is generated at local facilities and the HBPW has ownership and purchased power agreements outside of the system for generation using coal, natural gas, wind and landfill gas. Supplemental power is also purchased on the open market. The HBPW is currently constructing a new natural gas combined-cycle power plant that is projected to be completed in 2017. Fiber optic communications service is also available through the HBPW owned and operated fiber optic network.

In 2011, the City of Holland adopted the Holland Community Energy Efficiency and Conservation Strategy (Community Energy Plan) to help Holland meet a variety of economic, environmental, and energy supply reliability goals.[38] The Community Energy Plan makes a variety of recommendations to improve energy efficiency, reduce pollution, and strengthen local energy production over the next 40 years. This Master Plan supports the recommendations of the Community Energy Plan as they can help improve quality of life for Holland residents and greatly improve the community's resilience. The City should continue to work closely with the HBPW to educate citizens on ways to improve energy efficiency and offer assistance through programs like the Holland Home Energy Retrofit Program.

37 For more information, see HBPW's website at: www.hollandbpw.com/about-us
38 See the Community Energy Planning Information page on the City's website for current updates.



Environment

Transportation

Public
Services

Parks and Recreation

Housing

Urban Design

Food and
Agriculture

Economy

Social Services and
Community Health

Parks and Recreation

From sports to concerts and free events, the City of Holland is always alive with opportunities to enjoy an active lifestyle. The City's Recreation Division offers many popular programs with growing participation. In addition to basketball, tennis, swimming, softball, volleyball, and flag football, the Recreation Division Concerts at Kollen, the Kollen Park Friday Night Concert Series, and Party in the Park are all popular, free special events. A network of mini parks, neighborhood parks, community-wide parks, natural resource areas, and recreation facilities are widely distributed throughout the City's neighborhoods. This section's overall goal and its associated action steps will help the City embrace winter-time recreation, provide access to the waterfront, and continue to serve the public with high-quality public recreation and spaces.

GOAL

The City of Holland will have visually appealing, year-round, and diverse activities and spaces that are accessible and connected for all people.

POTENTIAL ACTION STEPS

- Coordinate with volunteer groups for clean-up and maintenance efforts in parks and trails.
- Create and build on recreational opportunities that bring diverse groups together.
- Ensure that the creation of public and private open spaces are appropriate to the scale of the surrounding neighborhoods.
- Ensure there are recreational opportunities for all City residents.
- Provide adequate transportation connections to recreational opportunities.
- Implement Low Impact Development strategies and green infrastructure in City parks for both environmental and educational benefits.
- Prioritize interactive water features at neighborhood parks.
- Promote additional winter recreational opportunities in neighborhood parks including the establishment of ice rinks.
- Improve public access to Lake Macatawa by acquiring property or easements along the waterfront.
- Connect the 8th Street Downtown to the waterfront through wayfinding signage and non-motorized transportation improvements.
- Support efforts to connect waterfront park spaces with non-motorized and pedestrian trails.
- Support the expansion of marina and boating services offered along Lake Macatawa.
- Research appropriate locations for new or improved kayak, paddling, and boat launch areas.
- Enliven the waterfront parks through additional events.

Parks and Recreation Master Plan

Parks and Recreation in the City of Holland is managed by the Parks and Recreation Department. The City of Holland has seven mini-parks, six neighborhood parks, seven community-wide parks, two natural resource areas, and four special use facilities. For more information on the location and services offered at each park, see the 2010 Community Parks and Recreation Plan.

Many of the goals of the Parks and Recreation Master Plan were repeated during the public input for this Master Plan. This Master Plan supports the goals of the Parks and Recreation Master Plan including:

- Maintain the high-quality parks and programming that Holland residents expect.
- Innovate new programs and parks uses that meet future needs.
    - Include Best Management Practices on public property, including waterfront parks.
    - Identify key pedestrian and non-motorized linkages between parks to encourage more alternative transportation.
    - Build additional flexible play fields that can be used year-round for events like soccer, lacrosse, hockey, and ice skating.
    - Identify locations for additional community gardening and urban farming projects.
- Serve all residents, especially vulnerable groups within the community.
    - Ensure equal access to sports programming for low-income children that may lack transportation to existing facilities.
    - Involve existing residents in planning for new park programming and facilities.
    - Assess needs for new cultural and art programming.
- Engage the public year round with a range of spaces and activities.
    - Create activities appropriate for active seniors, young couples/ singles, and teens.

Embracing the Winter Season

Winter recreational programming was at the forefront of public input for this Master Plan. Residents expressed their desire to be able to recreate year-round and embrace the winter season! Stakeholders agreed that the City of Holland could increase its appeal to tourists with an increase in winter activity. The Parks and Recreation Master Plan includes a number of possibilities to increase winter programming supported in this Master Plan including a holiday ice rink, a regulation sized ice rink, cross-country ski trails, and opening Lake Macatawa for ice fishing. The action steps in for this section include designing public spaces with winter uses in mind and supporting winter events and festivals.

Many of action steps in this section support the implementation of the Parks and Recreation Master Plan. Where these two documents agree, both efforts are strengthened and a clear, guiding direction for the City's initiatives is established.

WATER ACCESSIBILITY

Residents and stakeholders from the planning process for this Master Plan emphasized their desire for a greater connection between downtown Holland and the waterfront. As such, this Plan identifies and supports a number of opportunities for increased accessibility to Lake Macatawa and the Macatawa River. Though the "Big Lake," Lake Michigan, is just minutes away, greater accessibility to the Lake Macatawa waterfront within the City of Holland could provide a number of benefits to the City of Holland:

1. Water accessibility promotes tourism. Over 2 million tourists come to Holland annually, providing an estimated $124.7 million economic benefit on area retailers and restaurants.[39] If visitors could access the water in the City, tourism in the City may increase.
2. Water accessibility is an opportunity to foster an engaged public and create educational opportunities to teach the public how to care for this natural resource.
3. Connecting waterfront parks to downtown or neighborhood amenities can promote active lifestyles, biking and walking, and increase quality of life.

WATER PLAY

Splash pads are an increasingly popular way for children to experience summer play. Many residents of Holland expressed their desire for a splash pad or water-related installation in neighborhood and community-wide parks during the public process for this Master Plan. Not only do splash pads promote the social benefits of playgrounds, they are a cost-savings over building and maintaining swimming pools and can even be designed to serve as an ice rink during the winter months. Holland should work with the community to determine locations for additional splash pads throughout the City's neighborhoods.

39 Downtown Holland Retail Market Analysis, Gibbs Planning Group, 2014.

Road ends are one opportunity to improve public access to the water. The City is working to identify the boundaries of the public road ends and create conceptual plans to improve them (See the Lake Macatawa Road Ends Plan on the City's website).

Swimming pools, splash pads and natural recreation areas are important, not just for recreation and fun, but for helping residents, especially vulnerable populations like children and seniors, stay cool during summer months. Climate projections suggest that West Michigan will experience a greater number of high heat days each summer. Parks and recreation can be valuable assets for keeping people safe during extreme heat events and can be considered part of a community's vital resiliency network.

Residents of Holland at the National Night Out in August 2015, holding signs to finish the sentence "In the future, Holland should have ____."

Environment

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Parks and
Recreation

Housing

Urban Design

Food and
Agriculture

Economy

Social Services and
Community Health

Housing

From historic neighborhoods to downtown urban living, Holland has a variety of residential opportunities. Housing choices in a community are important for attracting new residents and businesses and for supporting residents as households grow and residents age. This section's goal and its associated action steps are designed to complement the City's existing efforts to provide for desired housing types and densities, rehabilitate existing housing stock, and work with regional partners to ensure that affordable housing units are adequately supplied.

GOAL

The City of Holland's housing stock will be energy efficient, well-maintained, and include various designs.

POTENTIAL ACTION STEPS

- Identify desired housing types and densities for different neighborhood areas and ensure that the Zoning Ordinance supports their development.
- Promote higher-density development that is well-designed and amenity-rich along with a mix of housing unit types in redevelopment and infill development projects adjacent to and in Downtown and on major thoroughfares.
- Promote and support the renovation, rehabilitation and increased energy efficiency of existing housing stock throughout the City.
- Pursue the creation and funding of programs that provide for the maintenance and rehabilitation of our housing stock, including the City's Home Repair Program and the City's Home Energy Retrofit Program.
- Work with nearby jurisdictions to identify the regional need for affordable housing and devise strategies to provide affordable housing throughout the region.
- Work to promote the design and construction of affordable housing that changes perceptions of its quality and makes it a desirable element of the community.
- Promote housing diversity to accommodate different household sizes, income levels, housing types, and density.
- Encourage owner occupied housing; occupancy or ownership by transient, disrespectful, or non-investing individuals is discouraged.

Housing Data for the City of Holland

This section provides background data, collected by the United States Census Bureau, on the number of renters and owners in the City, the prices to rent or purchase a housing unit, housing vacancy, and the number of units per structure in the City. The City of Holland has extensively studied the City's residential neighborhoods and future demand for housing. The data found in this Chapter is designed to complement these existing studies and support the goal and action steps in this chapter.

Just as in Chapter 3, all data in this section is shown for both 2000 and a five-year estimate from 2010 through 2014 (shown as the year 2014 in tables and text) for the City of Holland only. Appendix B illustrates how the City of Holland compares to neighboring cities and townships for each of the variables in this chapter. For more information on how to read and understand Census Data, see Chapter 3.

PUBLIC INPUT SUMMARY

During the planning process for this Master Plan, many residents and community leaders shared their ideas about housing options and issues in Holland. The existing historic character of neighborhoods is important to residents, as is the need for an adequate supply of affordable housing options.

Other major themes of the public input included the need for additional variety in the types of housing within the City, and the desire for mixed-use development and increased housing density within and near downtown.

OCCUPANCY AND VACANCY

Table 4.1 shows the difference in housing occupancy and vacancy for the City of Holland between 2000 and 2014. In total, the number of occupied housing units declined roughly in line with population loss in the City of Holland. While the population of Holland has declined by approximately 5% from 2000 to 2014 (see Chapter 3), the number of total occupied housing units in the City fell by 519 units, or about 4.3%, between 2000 and 2014. Meanwhile, the number of vacant housing units in the City rose from 451 in 2000 to 757 in 2014, an increase of 67.8%. It would appear that the Great Recession, which prompted an increase in housing vacancy and foreclosure nationwide, had an impact in the City of Holland, though exact causes for the spike in vacancy and decline in occupancy is not clear from this data. During this same time period, the number of vacant seasonal housing units increased moderately.

Table 4.1 Housing Occupancy and Vacancy, City of Holland

	2000		2014		Change (2000 to 2014)	
	#	% of total units	#	% of total units	#	% of total units
Occupied	11,971	95.5	11,452	92.6	-519	-4.3
Vacant (non-seasonal)	451	3.6	757	6.1	306	67.8
Vacant (seasonal)	111	0.9	160	1.3	49	44.1
Total Housing Units	**12,533**	100	**12,369**	100	**-164**	-1.3

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

In general, this reflects that household sizes are shrinking and may indicate that residents are seeking different housing options, moving into newly built units, and leaving less desirable choices behind and vacant. To further support this possibility, many participants in the Resilient Holland planning process identified a strong demand for higher density housing near downtown and more variety in housing types like condominiums and townhomes.

HOUSING TYPES AND QUALITY

Table 4.2 provides more detail about the types of residential structures in the City of Holland's housing supply. Notably, the number of residents living in large, multi-family structures has increased substantially since 2000. 66.4% of Holland's housing units are detached single-family homes. A majority of the City's central neighborhoods are made up of these homes, and the City is already taking a number of steps to preserve quality housing stock in these areas (see the City of Holland Neighborhood Improvement Strategy for more detail). Rehabilitation of older homes in disrepair is also promoted by the City and supported through programs and funding that provide assistance in maintenance and upkeep of both rental and owner-occupied homes. Housing policy guiding infill development within existing neighborhoods seeks to provide housing options that are in demand while ensuring that it complements the scale and character of surrounding development.

Table 4.2 Units in Structure, City of Holland

	2000		2014		Change (2000 to 2014)	
	#	% of total units	#	% of total units	#	% of total units
1 unit	8,477	67.5	8,206	66.4	-271	0.0
2 units	986	7.9	922	7.5	-64	-0.1
3 to 19 units	1,824	14.5	1,788	14.4	-36	0.0
20 or more units	900	7.2	1,151	9.3	251	0.3
Mobile home	371	3.0	302	2.4	-69	-0.2
Boat, RV, or other	0	0.0	0	0.0	0	0.0

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

A housing Target Market Analysis (TMA), created in 2015, addresses the topics of housing demand and preference in the Holland community and makes recommendations for the future development of housing within the City. According to the TMA, Holland can expect strong demand for additional housing units in the City, primarily rental units and attached unit types. The projected demand for owner-occupied housing units is primarily expected to occur with detached units. The City should promote the rehabilitation and renovation of existing detached single-family homes to help meet this demand and provide for the creation of attached units in infill development projects and mixed-use developments in areas of transitioning land use.

Renovation and rehabilitation of existing housing stock is promoted and supported by the City.

THE PRICE TO OWN AND RENT IN THE CITY OF HOLLAND

Table 4.3 demonstrates the change in median household income, median gross rent, and median value of owner-occupied homes in the City of Holland between 2000 and 2014. All values from the year 2000 have been multiplied by the inflation rate from 2000 to 2014, according to the United States Bureau of Labor Statistics. In general, this table shows that the spending power of households, measured in the median household income, has decreased by nearly 26%. The median gross rent of units within the City has increased by about 3%, while the value of an owner-occupied home has decreased by about 20%. In other words, this table shows that the price to rent or purchase a housing unit has become relatively more expensive than it was in 2000. Median gross rent has notably increased despite the decreased spending power of households.

Table 4.3 Median Income and Housing Costs

	2000 (adjusted for inflation and shown in 2014 dollars)	2014	% Change (2000 to 2014)
Median Household Income	$60,020	$44,619	-25.8
Median Gross Rent	$757	$779	2.9
Median Owner-Occupied Home Value	$144,076	$115,800	-19.6

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Tables 4.4 and 4.5 demonstrate the change in rental prices and the value of owner-occupied units, respectively between 2000 and 2014. In these tables, unlike Table 4.3, the year 2000 data is shown according to year 2000 spending power and not adjusted according to inflation. These tables are most useful for analyzing the distribution of home values and rental prices, as it is clear in both tables that a greater percentage of renters and owners are paying more for housing than they did in 2000.

Table 4.4 Rental Units, by Cost of Monthly Gross Rent

	2000		2014		Change	
Rent Price ($)	#	%	#	%	#	%
Less than 100	13	0.3	8	0.2	-5	-38.5
100 to 149	109	2.8	0	0.0	-109	-100.0
150 to 199	91	2.3	49	1.2	-42	-46.2
200 to 249	78	2.0	46	1.1	-32	-41.0
250 to 299	66	1.7	23	0.6	-43	-65.2
300 to 349	72	1.8	30	0.7	-42	-58.3
350 to 399	99	2.5	77	1.9	-22	-22.2
400 to 449	302	7.7	9	0.2	-293	-97.0
450 to 499	410	10.4	121	2.9	-289	-70.5
500 to 549	634	16.1	193	4.7	-441	-69.6
550 to 599	437	11.1	295	7.1	-142	-32.5
600 to 649	421	10.7	391	9.5	-30	-7.1
650 to 699	259	6.6	345	8.3	86	33.2
700 to 749	144	3.7	293	7.1	149	103.5
750 to 799	180	4.6	241	5.8	61	33.9
800 to 899	223	5.7	570	13.8	347	155.6
900 to 999	91	2.3	399	9.6	308	338.5
1,000 to 1,249	71	1.8	432	10.4	361	508.5
1,250 to 1,499	28	0.7	268	6.5	240	857.1
1,500 to 1,999	34	0.9	23	0.6	-11	-32.4
2,000 or more	6	0.2	222	5.4	216	3600.0
No cash rent	169	4.3	101	2.4	-68	-40.2
Total	**3,937**	**100**	**4,136**	**100**	**199**	**5**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

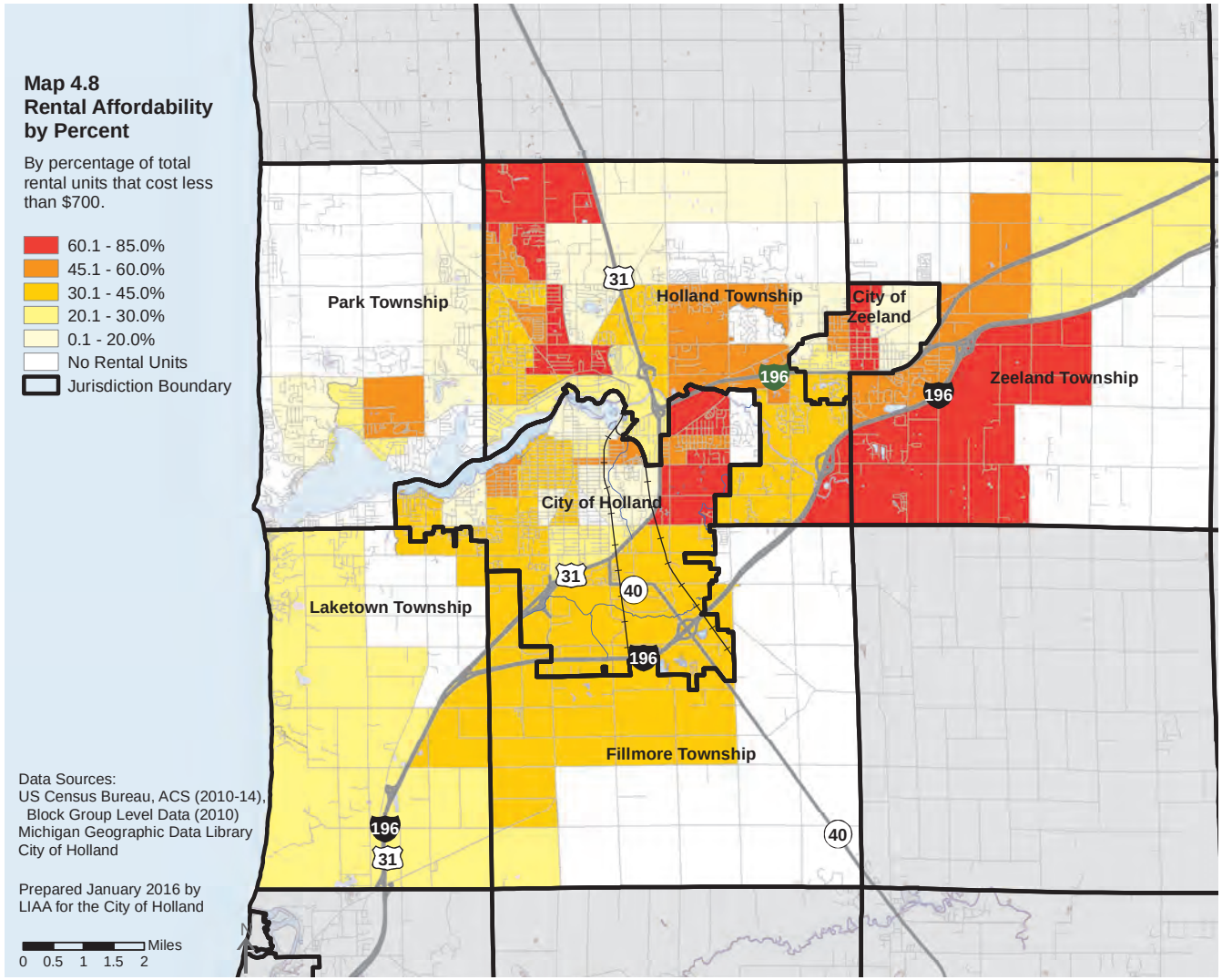
Table 4.5 Owner-occupied Units, by Value

	2000		2014		Change	
Unit Value ($)	#	%	#	%	#	%
Less than 10,000	87	1.1	218	3.0	131	150.6
10,000 to 14,999	43	0.5	37	0.5	-6	-14.0
15,000 to 19,999	49	0.6	37	0.5	-12	-24.5
20,000 to 24,999	18	0.2	12	0.2	-6	-33.3
25,000 to 29,999	49	0.6	40	0.5	-9	-18.4
30,000 to 34,999	32	0.4	12	0.2	-20	-62.5
35,000 to 39,999	38	0.5	40	0.5	2	5.3
40,000 to 49,999	71	0.9	103	1.4	32	45.1
50,000 to 59,999	138	1.7	119	1.6	-19	-13.8
60,000 to 69,999	472	5.9	303	4.1	-169	-35.8
70,000 to 79,999	724	9.0	364	5.0	-360	-49.7
80,000 to 89,999	971	12.1	705	9.6	-266	-27.4
90,000 to 99,999	1,022	12.7	640	8.7	-382	-37.4
100,000 to 124,999	1,618	20.1	1,629	22.3	11	0.7
125,000 to 149,999	1,029	12.8	1,063	14.5	34	3.3
150,000 to 174,999	706	8.8	712	9.7	6	0.8
175,000 to 199,999	386	4.8	247	3.4	-139	-36.0
200,000 to 249,999	298	3.7	503	6.9	205	68.8
250,000 to 299,999	76	0.9	151	2.1	75	98.7
300,000 to 399,999	85	1.1	149	2.0	64	75.3
400,000 to 499,999	47	0.6	92	1.3	45	95.7
500,000 to 749,999	18	0.2	63	0.9	45	250.0
750,000 to 999,999	18	0.2	30	0.4	12	66.7
1,000,000 or more	55	0.7	47	0.6	-8	-14.5
Total:	**8,050**	**100**	**7,316**	**100**	**-734**	**-9**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

RENTAL AFFORDABILITY IN THE GREATER HOLLAND REGION

There are a number of rental opportunities in communities neighboring the City of Holland. Map 4.8 shows the percentage of rental units by block group across the region that cost less than $700 each month. This price was chosen to demonstrate an affordable rent based on the United Way Community Needs Assessments conducted for both Ottawa and Allegan Counties. While $700 each month may be more than some can afford, this number was chosen to give a reasonable estimate of an affordable rent would be for households who are employed but remain asset limited or income constrained.



Measuring Rental Affordability

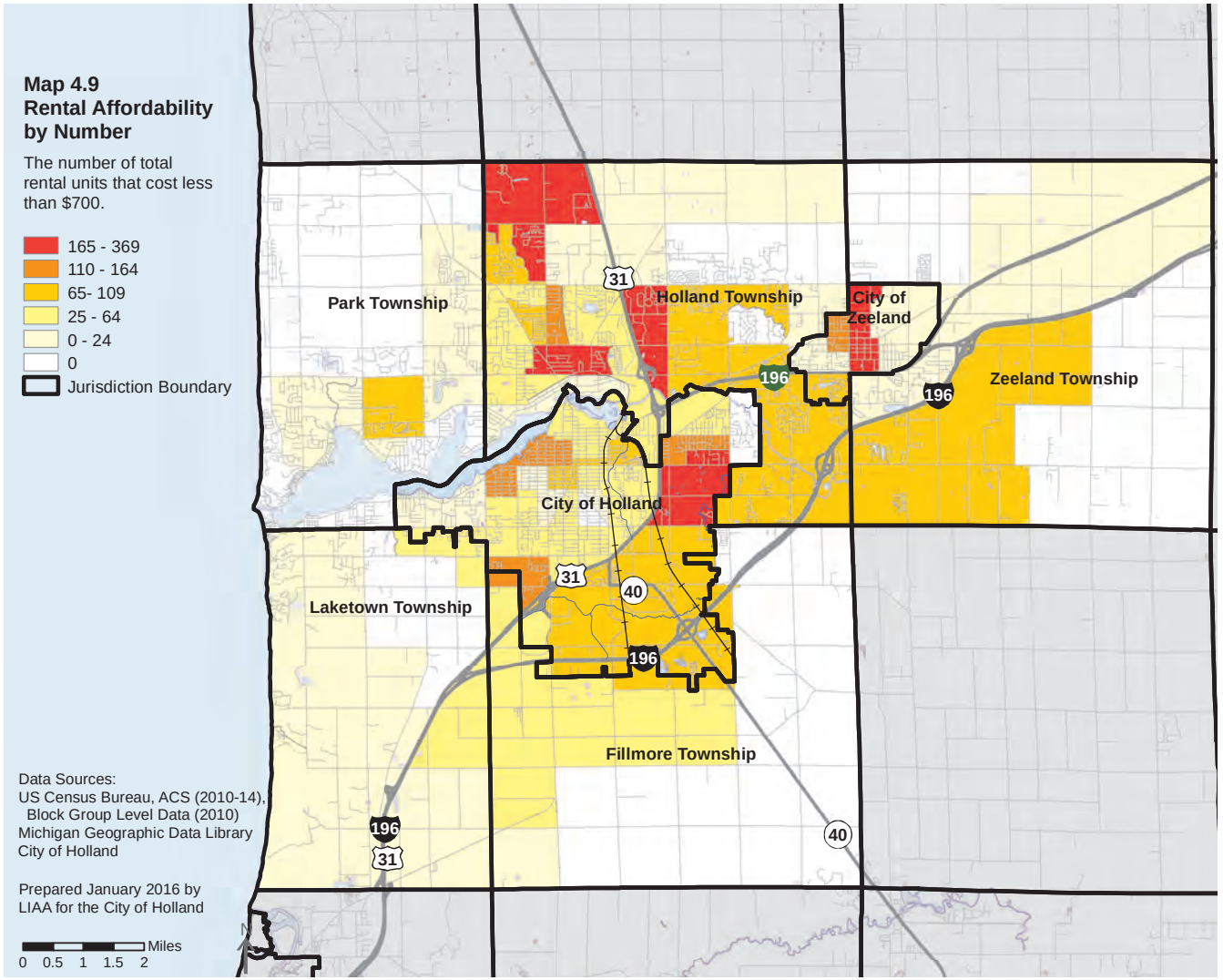
Map 4.8 gives a reasonable depiction of the percentage of rental units within each block group that would be affordable for an employed household with limited assets or constrained incomes. As shown in the map, a number of areas within Holland Township, Zeeland Township, the City of Zeeland, and the City of Holland have areas where between 60.1 and 85 percent of all rental units in the block group rent for $700 or less each month.

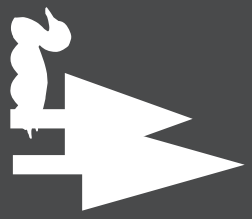
While Map 4.8 showed the percentage of rental units that cost less than $700 each month, Map 4.9 below shows the total number of rental units that meet this definition of affordable. In general, some block groups located inside and outside the City of Holland have a high percentage of affordable units but relatively low total units.

Rental Affordability Action Steps

The analysis in this chapter was used to inform the goals and action steps for this Master Plan. Specific to rental affordability, the City of Holland Planning Commission identified the following action steps:

- Work with nearby jurisdictions to identify the regional need for affordable housing and devise strategies to provide affordable housing throughout the region.
- Work to promote the design and construction of affordable housing that changes perceptions of its quality and makes it a desirable element of the community.
- Promote housing diversity to accommodate different household sizes, income levels, housing types, and density.





Environment

Transportation

Public
Services

Parks and
Recreation

Housing

Urban Design

Food and
Agriculture

Economy

Social Services and
Community Health

Urban Design

The form, character, and function of a community's physical spaces greatly impact people's perceptions of the place and drive how desirable it is to live, play, work, and shop there. The form and character of Holland's historic streets, public spaces, and buildings were established as it was founded in the 1800s. As the City continued to grow, patterns of development changed to meet new building standards and societal needs and desires. The result is a City that contains a variety of development patterns with varying intensities, character and form. As the City plans for the future it must balance the desire to preserve its historically valuable resources and cultural identity with the desire to provide new development that serves a changing population and current needs.

GOAL

The City of Holland's neighborhoods will be aesthetically pleasing, tree-lined, walkable, and mixed-use with recognizable development patterns.

POTENTIAL ACTION STEPS

- Identify development districts within the City and promote design standards to reinforce desired development patterns and character in these districts.
- Identify desired street design characteristics for different development districts within the City, focusing on complete street concepts and pedestrian connections.
- Continue to engage the community to determine which physical forms and development patterns are desired.
- Increase development densities and building heights along arterial corridors where appropriate.
- Promote Transit Oriented Design standards along major thoroughfares and arterial routes.
- Preserve the existing architectural aesthetic of 8th Street Downtown.
- Explore the feasibility of and desire for a form-based zoning code for parts of, or all, of the City.
- Ensure that lighting in public spaces, including street lighting is appropriately designed to limit its impact on nearby residences and reduce light pollution while providing safe levels of lighting.

Holland's Existing Development Patterns

A *rural-to-urban transect* classifies the general development intensities and patterns found in most communities into six transect zones (see the image below). Each zone of the transect identifies the physical form and layout of things like streets, lots, building placement, and architectural style. Creating an inventory of the existing development patterns in a community can help identify ways to determine what types of building and neighborhood design will complement, preserve, or create desired development patterns.

Categorizing Holland's existing development patterns — and the characteristics of these patterns that people find aesthetically pleasing, functional, and representative of their idea of Holland — helps identify areas where the preservation of existing patterns is preferred. Where existing development patterns diverge from the preferred vision for aesthetics, function and form, opportunities exist for redevelopment that transforms a neighborhood. Throughout the planning process, it became clear that the people of Holland value open spaces and the historic character of the City's neighborhoods, but are open to transformative redevelopment in many areas that complements and enhances quality of life, improves aesthetics, and generates opportunity.

This section offers a preliminary description of the existing transect and pattern types in the City of Holland. The traditional rural-to-urban transect has been modified in order to better describe the existing development patterns and intensities found within the City. Transect zones range from rural to urban and a variety of special zones have been included to better describe unique patterns that do not easily fit within other identified transect zones. The Strategic Land Development Map in chapter 5 illustrates where development patterns should be preserved and where future development is intended to change the form and character of an area.

Existing development patterns within Holland range from undeveloped natural areas to the relatively dense arrangement of land uses and buildings found downtown.

A rural-to-urban transect provides general classifications for the general development intensities and patterns of a community. See the Center for Applied Transect Studies for more information. The traditional transect (above) was modified to better fit the City of Holland, as seen on the following pages.



The intensity, patterns, and character of land development within Holland vary depending on a number of factors including age of development, proximity to major streets, and predominant land use.

PUBLIC INPUT SUMMARY

During the Resilient Holland planning process, numerous citizens and stakeholders shared their ideas about how Holland should look in the future. Many of these ideas apply to the physical form of the City's neighborhoods as well as other topics contained in this chapter, like parks and transportation. A community's urban design is closely linked with many aspects of daily life, from how we get from one place to another to where we play and the types of homes and neighborhoods we choose to live in. Some of the most common ideas were:

- **Preserve the character of historic neighborhoods and downtown.**
- **Provide open spaces and parks within all neighborhoods.**
- **Provide a mix of uses in new development and redevelopment projects.**
- **Provide a greater variety of housing options.**
- **Provide more housing near downtown.**
- **Increase development densities near downtown.**
- **Provide, improve, and enhance neighborhood commercial nodes.**
- **Provide pedestrian connections within and between neighborhoods.**

EXISTING DEVELOPMENT PATTERNS

The traditional rural-to-urban transect has been modified to better describe the existing development intensities, patterns, and types within the City of Holland. Transect zones range from rural to urban and can contain either a single, primary type of land use or a wide variety of land uses. For example, the suburban zone has been divided into five sub-zones that primarily consist of a single land use due to development standards preventing a mix of uses in these areas at the times when they were developed. The urban zone, on the other hand, contains a variety of uses mixed together in older portions of the City.

The suburban zone includes patterns that were primarily developed in the latter half of the 20th century, including neighborhoods that are located farther from downtown that have larger block sizes, varying street patterns, varying lot sizes, and more modern architectural styles. In the suburban zone, homes often have garages in front or to the side and wider driveways. Sidewalks are intermittent and newer streets may be wider and designed with curvilinear patterns and cul-de-sacs. Public transportation is available in certain areas of this zone, typically along busier streets. Additionally, the suburban zone contains commercial development that is more oriented to the automobile and includes big box retail establishments, strip malls, and stand-alone buildings along busier streets. Pattern types within the suburban zone include:

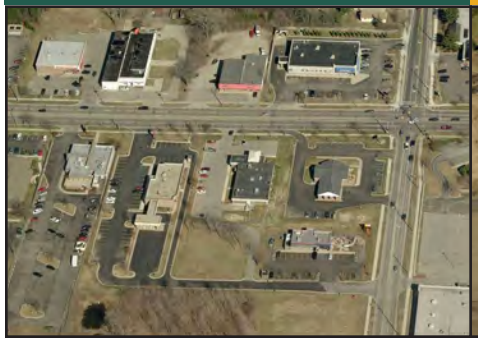
NATURAL/RURAL ZONE	SUBURBAN ZONE		
	Suburban Residential 1	Suburban Residential 2	Suburban Multiple-Family Residential
Significant open spaces, natural areas, rural lands, and large recreational facilities within the City of Holland. This zone is primarily made up of large tracts of land that are generally devoid of streets or other development. Recreational amenities exist in many of these areas, but are generally limited to pathways, viewing areas, and other passive recreation elements.	Moderately sized to large blocks with larger homes on larger lots. Homes were typically built in the late 20th century. Street patterns vary, but often include curvilinear designs and cul-de-sacs. Sidewalk infrastructure is intermittent and homes primarily have attached, front-facing garages with wide driveways. Also includes attached, single-family housing.	Moderately sized homes, usually built in the mid- to late 20th century, of varying style located on medium sized lots within moderately sized blocks. Street patterns vary between gridded and curvilinear and sidewalk infrastructure is intermittent. Attached, front-facing garages are also prevalent.	Typically large blocks with internal street networks, multiple-family housing complexes, and shared parking lots. Building sizes and styles vary and most development occurred in the late 20th century.
			

The identification of the existing pattern types in Holland will help guide recommendations for potential design guidelines that may be incorporated into the City's Zoning Ordinance to ensure that desired development patterns are promoted throughout the City. The Existing Development Pattern Map can be found on the following page.

SUBURBAN ZONE

Suburban Commercial

Primarily automobile oriented commercial development in the form of big box retail establishments, strip malls, and free standing buildings. Located on larger blocks and along busier corridors, buildings are typically set further from the street and sites often have large parking lots in front or to the side of buildings. Signage is inconsistent and includes pole, monument, and building signs. Sidewalk infrastructure is intermittent.



Suburban Industrial

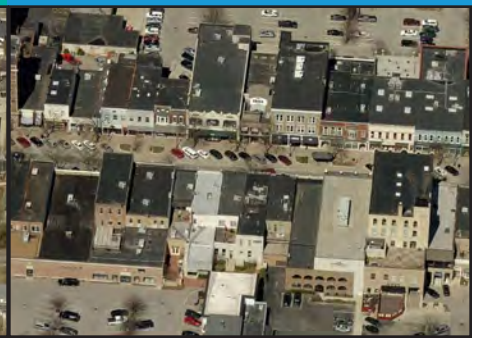
Primarily larger-scale industrial and high-intensity commercial development on large lots, with large buildings and parking lots. These areas are generally well separated from residential areas and provide easy access to major streets and highways. The West Michigan Regional Airport is included in this area.

URBAN ZONE

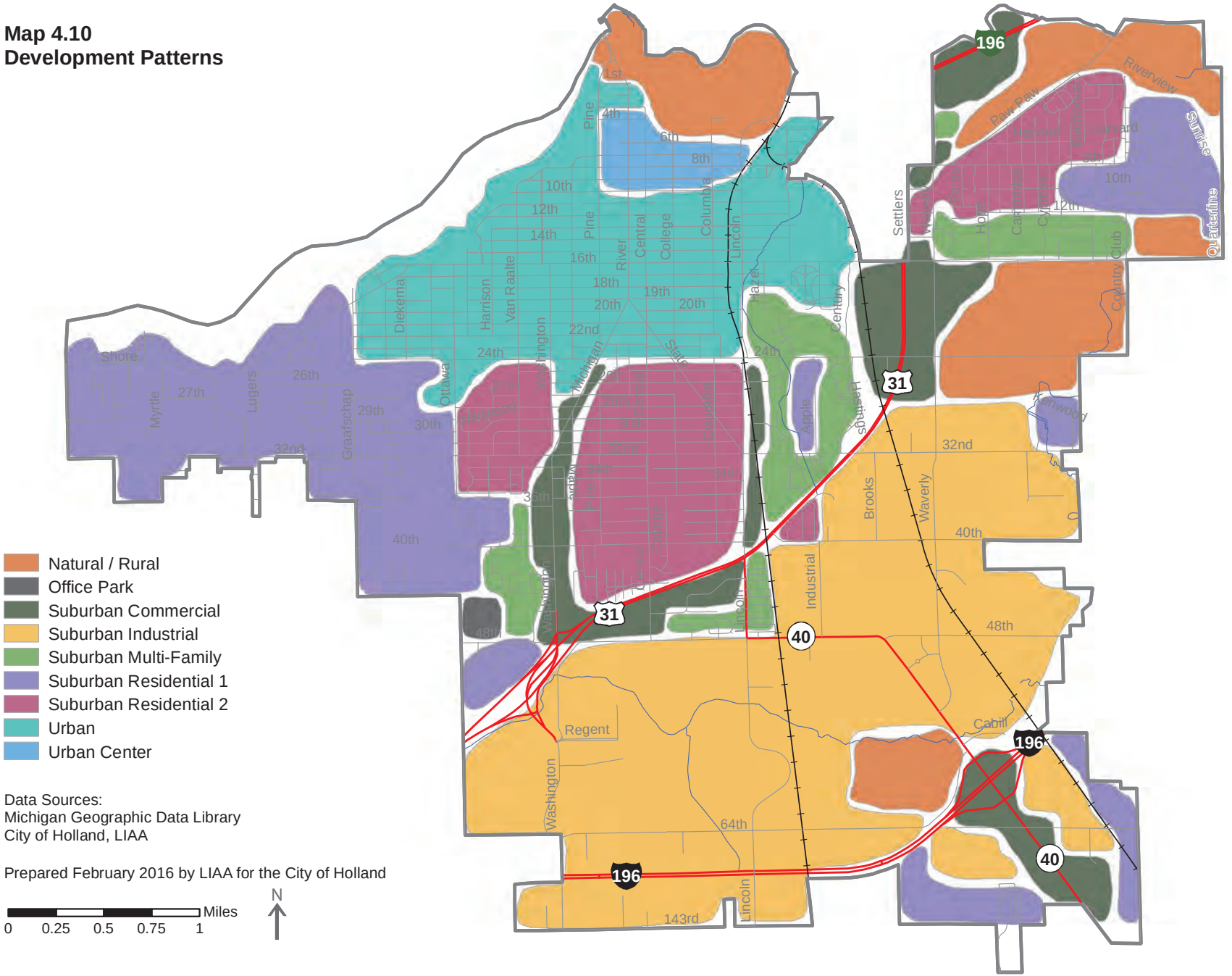
Areas that were primarily developed between the late 1800s and the mid 1900s and contain a mix of residential, institutional, service, industrial, and commercial uses. These areas tend to be located closer to the urban center (downtown) of the City and include a variety of building styles. The urban zone features small to medium size lots and small to moderately sized blocks on a traditional grid street pattern. Residential lots in this zone typically have garages to the rear of the homes with narrower driveways. Sidewalks are prevalent in these areas and streets range in width to accommodate vehicular traffic and on-street parking. Public transportation is available in these areas with routes typically located along busier streets.

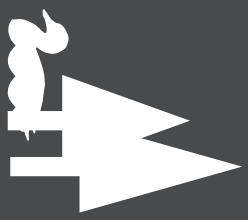
URBAN CENTER ZONE

The urban center zone includes traditional "downtown" development in the center of Holland. Mixed-use buildings of varying height, style, and lot placement along 7th, 8th, and 9th Streets typify the development patterns in this zone. Also included are the Holland Civic Center site and portions of River and Central Avenues. Buildings are either attached or free standing and lie close to the streets that are organized in a traditional grid pattern, forming smaller and moderately sized blocks. Sidewalks are prevalent and many streets provide on-street parking. Sidewalks are often scaled to accommodate higher volumes of pedestrian traffic in areas of more intense retail and entertainment development. Higher development densities within the City are found in this zone.



Map 4.10
Development Patterns





Environment

Transportation

Public Services

Parks and Recreation

Housing

Urban Design

Food and Agriculture

Economy

Social Services and Community Health

Food and Agriculture

Food — not only what we eat, but where our food comes from, and how it gets to us — plays a key role in the everyday life of Hollanders, though food systems are often overlooked in planning and policy. A number of state and local initiatives are underway to help communities plan for their local food systems, including the Michigan Municipal League's PlacePlan project in Holland, which commissioned a study on local food opportunities in Holland. This study, the PlacePlan project, and this Master Plan's public process informed the goal and actions steps for this topic area. Through the goal and action steps identified on the next page, the City of Holland will work to strengthen its local food systems for all Holland residents and businesses.

GOAL

The City of Holland will have locally-sourced, fresh foods accessible to all residents and businesses.

POTENTIAL ACTION STEPS

- Partner with research institutions like Michigan State University Extension and local food organizations in Holland to educate existing and new farmers on the benefits of growing foods for a local market.
- Participate and convene regional conversations about supporting local food businesses.
- Attract additional food retailers and grocery stores to the City, especially in areas of the City with low accessibility.
- Address gaps in food accessibility in downtown urban neighborhoods by enabling produce stands, food trucks, or other temporary 'pop-up' opportunities to buy fresh food.
- Continue to support the Holland Farmer's Market and encourage the expansion of the Farmer's Market to continue year-round.
- Explore the reuse of vacant areas, including under-used parking lots, to host food-related events in effort to increase accessibility to local food.
- Add to the strong network of food-related businesses by attracting new small and medium scale food producers, processors, and distributors.

Local Food in Holland

West Michigan is one of Michigan's top producing agricultural regions, producing 60% of Michigan's poultry and eggs, 40% of Michigan's berries, and one-third of Michigan's nursery stock, sod, and pork. This enormous pipeline of agricultural products has fostered a strong network of growers, restaurants, institutions, and large scale processors and distributors in the region, each with the knowledge base to support small, emerging food-related businesses. The Holland Farmer's Market and the many community gardens in the City are a successful and growing aspect of City life for many. See Map 4.7 for locations of the many food stores and community gardens in the City. In 2014, the City of Holland began looking at ways to nurture this industry and help link residents in Holland to agricultural products that can be consumed locally. The City of Holland Local Food Innovation and Opportunities Report found that there is significant untapped demand for local food in the City. The Report also identified a few key issues that strengthening the local food economy may address:

- While the City of Holland has a number of food stores and community gardens in the City (see Map 4.11), Ottawa County in general has market potential to support new grocery stores. Michigan averages about 2.3 grocery stores per 10,000 people, while Ottawa County currently averages 1.4.
- Several Census Tracts in the City lack access to a full-service grocery store within 1 mile. Households in these Census Tracts are considered "food insecure" by the Ottawa County Food Policy Council. However, Map 4.11 shows that nearly all Hollanders are within a 1-mile walk of a full-service grocery store. All Hollanders are within a 1-mile walk of either a full-service grocery store or a convenience, or "corner," store.
- Health Assessments in both Ottawa and Allegan Counties have concluded that adults are not consuming enough fruits and vegetables, with over 80% of adult residents eating less than the recommended servings of produce each day.
- The traditional food system often doesn't meet the needs of a diverse population, and low-income minorities often lack accessible, affordable, and culturally appropriate food. While Holland has many grocery stores specializing in Hispanic and ethnic foods, there may still be unmet demand.

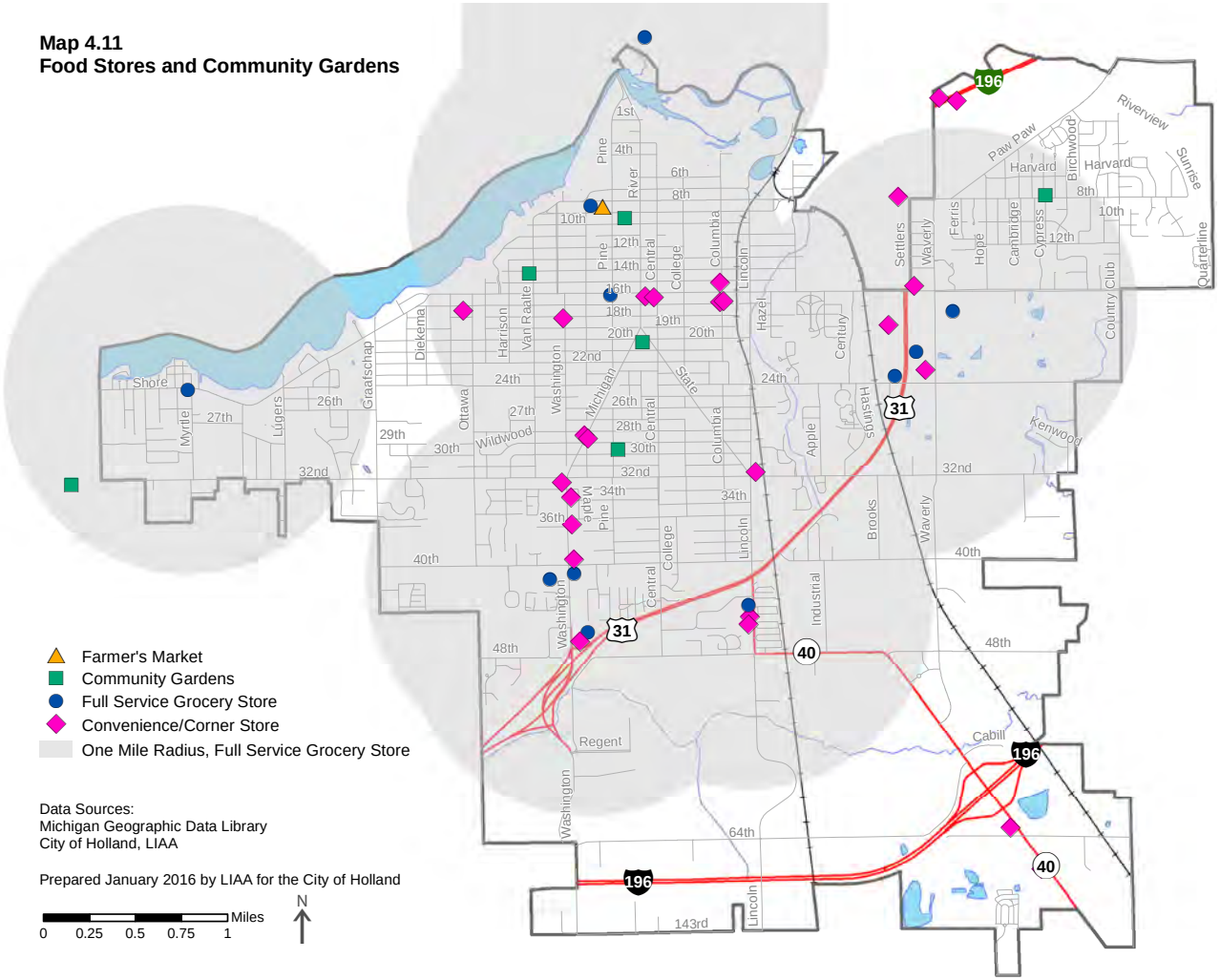
Public Input Summary

The public process for developing this Master Plan invited residents and local community leaders to identify strengths and opportunities of Holland's local food system. Several themes emerged from these public engagement efforts:

- **The City has many food assets, including community gardens, the Farmer's Market, and many small grocers.**
- **Residents would like to see greater access to fresh, local food in the City's neighborhoods.**
- **Residents would like to see food truck events hosted in the under utilized parking lots and parks.**
- **Residents desire more opportunities to purchase fresh and local produce at the existing small grocery stores and convenience stores in the City, especially in the downtown neighborhoods.**

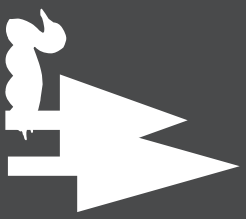
The locations of existing grocery stores, convenience stores, farmer's markets, and community gardens are shown in Map 4.11. Several of the key food stores in and near the City are mapped, and the gray border indicates a one-mile radius around a full service grocery store. While most of the City is within this one-mile radius, the City is working to ensure that appropriate access to fresh and local food is available to all residents. This may include strategies like encouraging corner convenience stores to carry a greater selection of locally-grown produce, meat, and dairy products.

Map 4.11
Food Stores and Community Gardens



Food Systems Planning for Resiliency

A globally changing climate is one key reason why the local food economy in Holland is so important. Most people who live in urban neighborhoods purchase their food from grocery stores supplied by the global food market, but each step in the process from grower to grocer is vulnerable to disruptions caused by climate conditions, like high transportation costs and crop shortages. A natural disaster hundreds or even thousands of miles away can trigger an upset in the delicate industries so many rely on. By increasing consumption of locally-produced meat, vegetables, fruit, and dairy, Holland is becoming more resilient to changes in global food systems.

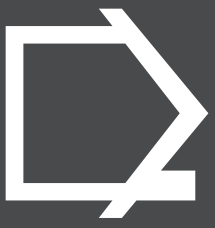


Environment

Transportation

Public
Services

Parks and
Recreation



Housing

Urban Design

Food and
Agriculture

Economy

Social Services and
Community Health

Economy

Economy is the underlying factor that attracts and keeps residents in the City, supports the expansion of City services, and catalyzes new quality of life amenities for residents and visitors. Holland is building on its strong manufacturing base of globally-competitive firms as it works to ensure that Hollanders are ready for quality jobs and coming economic opportunities. Holland's thriving downtown has potential to support new businesses, and the City is building on Holland's home-grown spirit of entrepreneurial innovation in a variety of crafts including locally-produced food and art. The goal and action steps in this section are designed to leverage Holland's strengths and guide the City to attract new jobs and residents.

GOAL

The City of Holland's economy will consist of diverse industries based on technology and design that attract and retain talent and are fueled by a strong entrepreneurial spirit.

POTENTIAL ACTION STEPS

- Allow new businesses to 'test' ideas with pop-up events, vacant spaces, or with movable infrastructure.
- Support business start-up practices including business incubators.
- Continue to work with Lakeshore Advantage to proactively provide market studies and other resources to prospective businesses and entrepreneurs.
- Continue to support existing and attract new retail and entertainment options in various commercial districts.
- Support the diverse community networks that contribute to the City's thriving artistic and entrepreneurial community.
- Involve local artists in pop-up projects and community programming to boost community pride and promote diversity.
- Continue to sponsor and promote events that highlight the various commercial districts throughout the City.
- Continue to foster a favorable business environment that is attractive to existing and prospective businesses of all types.
- Support business and employment opportunities within and near our many neighborhoods.
- Continue to support the various neighborhood commercial centers so they can meet the daily needs of the surrounding neighborhood and also provide an identity and gathering place for neighborhood residents.

Economic Trends and Data

Holland is part of a growing regional economy. From 2014 to 2015, nearly all industries in the West Michigan regional economy gained employment and continued to grow. This growth is especially evident in industries like food manufacturing, fabricated metal manufacturing, and machinery manufacturing. Unemployment rates in West Michigan have continued to decrease, and retail activity has trended upwards since 2010.[40]

DOWNTOWN SUCCESS

Downtown Holland stands as an exciting example of regional economic success. In 2014, the Michigan Municipal League (MML) and the City of Holland commissioned a Retail Market Analysis on Downtown Holland from Gibbs Planning Group as part of MML's PlacePlan for the City of Holland. The report showed that demand for downtown business is growing, and demand is projected to continue to grow in coming years. Currently, the market area of downtown includes about 5,000 employees who work within a short distance from downtown Holland. The results show that Downtown Holland could capture an additional $33 million in new sales and potentially support an additional 101,600 square feet of retail space for new goods and services. The leading categories of supportable growth include restaurants, department stores, apparel, furniture, and jewelry.[41]

LOCAL ECONOMIC DATA

A number of sources collect data on Holland's local economy. For this section, data from the United States Census Bureau's American Community Survey is used. For more on how this data is collected, see the "Understanding Census Data" box in Chapter 3.

EDUCATIONAL ATTAINMENT

Research shows that the economic prosperity of an individual is closely linked to a person's educational attainment, or the level of education they have received. Therefore, the overall educational attainment of Hollanders is a key factor in attracting new business to the City and linking residents to appropriately-skilled jobs.

Public Input Summary

Many residents offered input on Holland's economy. Overall, Hollanders place high value on the City's tourism industry, non-profit network, manufacturing opportunities, and multicultural institutions. Residents enjoy the City's diverse network of industries and educational opportunities, the Downtown area, and low unemployment.

Residents would like to see increased wage growth and additional technical training opportunities, especially for teens and local entrepreneurs. A number of strategies for addressing these concerns are in the actions steps for this section.

40 For more information on these trends, see the UpJohn Institute's West Michigan Business Outlook reports. This information came from the June 2015 report.

41 The 2014 Retail Target Market Analysis on Downtown Holland from Gibbs Planning Group can be found in the Michigan Municipal League PlacePlan for the City of Holland.

Data collected by the United States Census Bureau shows that nearly one-third of Hollanders have received at least a bachelor's degree, which is higher than the State average of 25%. Additionally, the educational attainment of Hollanders has steadily increased from 1990 to 2014, as seen in Table 4.6. The City should continue working with the strong network of education and vocation training opportunities to ensure that job seekers have the right skill set for jobs offered. Holland's educational network includes Hope College, Western Theological Seminary, satellite campuses of both Davenport University and Grand Valley State University, and Grand Rapids Community College. Organizations like Lakeshore Advantage and the Michigan West Coast Chamber of Commerce provide support for workforce training and business development.

Table 4.6

Percentage of population 25 years and older with a bachelor's degree or higher, City of Holland.

Year	%
1990	22.5%
2000	26.9%
2014	30.3%

Sources: US Census Bureau, Decennial Census and American Community Survey 2010-2014.

The action steps for this section are designed to prepare Holland's labor force for a global economy that requires diverse skills. Already, Holland residents find work in a variety of industries (Table 4.7), with the largest numbers of residents working in manufacturing (5,723), and educational, health, and social services (3,655).

Table 4.7

	2000		2014		Change, 2000-2014	
	#	% of total	#	% of total	#	%
Agriculture, forestry, fishing and hunting, and mining	134	0.8	391	2.6	257	191.8
Construction	662	3.8	608	4.0	-54	-8.2
Manufacturing	5,723	33.2	4,196	27.6	-1,527	-26.7
Wholesale trade	510	3.0	267	1.8	-243	-47.6
Retail trade	1,876	10.9	1407	9.3	-469	-25.0
Transportation and warehousing, and utilities	392	2.3	444	2.9	52	13.3
Information	392	2.3	198	1.3	-194	-49.5
Finance, insurance, real estate and rental and leasing	562	3.3	477	3.1	-85	-15.1
Professional, scientific, management, administrative, and waste management	832	4.8	1259	8.3	427	51.3
Educational, health and social services	3,655	21.2	3510	23.1	-145	-4.0
Arts, entertainment, recreation, accommodation and food services	1,393	8.1	1425	9.4	32	2.3
Other services (except public administration)	736	4.3	755	5.0	19	2.6
Public administration	359	2.1	241	1.6	-118	-32.9
Total Employed Population Ages 16 and Over	17,226	100	15,178	100	-2,048	-11.9

Sources: US Census Bureau, Decennial Census and American Community Survey 2010-2014.

ECONOMIC ASSETS FOR THE NEW ECONOMY

Statewide, many economic experts agree that the drivers of Michigan's economy have changed. Where heavy manufacturing was once the backbone of many Michigan cities, future economic growth is likely to occur in a variety of industries, including manufacturing but also in health, financial management, human services, and food. The workers for these jobs have new preferences for communities they like to live in, and place quality of life at the forefront when choosing a home. Researchers at Michigan State University's Land Policy Institute refer to this as the "New Economy" and recommend a number of ways local communities can attract new economic growth, many of which are included in the action steps for this section.

The City of Holland is already working to prepare for the New Economy in a number of ways. For example, the City's Brownfield Redevelopment Program is collaborating with area partners to ensure that brownfield land, or land that may have been contaminated by a previous use, is clean and ready to be used for something new. Lakeshore Advantage, an area nonprofit, is working to train job seekers on the skills needed for available jobs. The City advertises business opportunities and provides a number of resources on the City website.

The City is also working to foster opportunities for entrepreneurial growth and attract new residents. The City has a long history of local business ownership and a culture of designing and building locally-produced goods and services. Along with Holland Charter Township, the City established a "satellite SmartZone" in an area that will include downtown Holland to aid new businesses with permitting and startup processes.[42] The City created an International Relations position on its staff and also hosts an International Relations Committee. Efforts like these help the City welcome and attract a global workforce. Investment in walkable, dense Downtown Holland is helping the City become a destination for young families and individuals that prefer an urban environment.

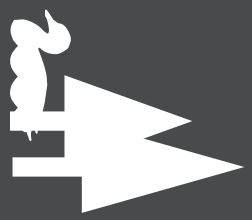
Of course, year-round tourism provides many benefits to the City and its economy. Amenities like downtown shops and restaurants, nearby access to Lake Michigan, and the City's many local parks attract over 2 million tourists each year to Holland, with an estimated $124.7 million economic benefit for the Downtown area alone.[43] Many assets that attract visitors can also attract new residents as well.

Placemaking in the New Economy

Placemaking is a tool that uses public engagement to create appealing, accessible, comfortable, active public spaces. Communities can tap into placemaking strategies as a way to attract a workforce that chooses where to live not just for available jobs, but also for quality of life amenities. Holland already has much to offer young professionals in this New Economy. Just a few examples of how Holland might continue to invest in placemaking strategies are listed below.

- Displaying public art pieces around the waterfront and in Downtown, produced by local artists.
- Providing entertainment, arts, and culture events through partnerships with educational institutions.
- Reusing empty or historic buildings for entrepreneurial programming or urban housing options.

42 For information on the SmartZone, see the Holland Satellite Smart Zone page on the City's website.
43 Downtown Holland Retail Market Analysis, Gibbs Planning Group 2014.



Environment

Transportation

Public Services

Parks and Recreation

Housing

Urban Design

Food and Agriculture

Economy

Social Services and Community Health

Social Services and Community Health

The City of Holland has a strong network of social service, non-profit, and community health organizations working collaboratively to provide services to those in need and ensure that opportunities for healthy living are available. Community health encompasses urban design that promotes walking and biking, recreational amenities, and access to fresh food, while resiliency in social services and community health includes preparation for natural disasters and emergencies, services for vulnerable populations, and collaboration with health experts in local planning and policy. Overall, the goal and action steps in this topic area ensure Holland continues to be a compassionate, inclusive, and healthy community.

GOAL

The City of Holland will foster a safe and healthy community for all residents.

POTENTIAL ACTION STEPS

- When designing new recreation and municipal facilities (like fire stations and community centers), include accommodations to use facilities as emergency relief locations during times of extreme heat, severe storms, or other natural disasters.
- Encourage broad participation from City departments and community leaders in hazard mitigation and emergency preparedness planning at the City and County level.
- Develop a coalition of local leaders educated on the long-term changes in climate for West Michigan. This coalition should include transportation, watershed and utility planners and engineers; County public health and Holland Hospital officials; public safety officials; local food representatives; and representatives from neighborhood, cultural and religious institutions.
- Reevaluate floodplains and localized flooding data to determine where changes in zoning or building standards might be necessary to reduce the risk of property and infrastructure damage.
- Partner with school systems and social service providers to ensure that students have safe routes to schools and other community destinations.
- Ensure that all neighborhood areas are free of environmental nuisances, including external noises.
- Meet ADA standards as new public spaces are redeveloped.
- Continue to partner with non-profits and other community services to link vulnerable populations, like homeless youth, low-income seniors, and others with appropriate resources.
- Continue to partner with local community organizations to identify health needs at the neighborhood level. Develop an action plan to measure, track, and improve health indicators by partnering with local and county health officials and local community organizations.
- Encourage the use of programs for community building like the Nextdoor Neighbor program, a social networking group for residents of individual neighborhoods.
- Continue to include youth representatives on City boards and commissions.
- Continue to ensure that all planning processes and meetings are accessible to all members of the community including specific outreach to the City's diverse minority populations. Welcome community members to participate in through a variety of actions.
- Increase collaboration wherever possible with neighboring jurisdictions including discussions on land use, environment, and community services.
- Continue collaboration efforts with excellent schools and other well maintained institutions to serve as community centers that are immediately accessible to residents.

Health and Master Planning

Many of the topic areas in this Plan relate to community health including transportation, recreation, local food, and urban design. Many Michigan communities are thinking about health in their Master Plans and City policies. Not only does this Master Plan solidify the community's vision for a healthy community, but the action steps of this section will help the City measure success, pursue funding, and champion health advocates in the community through thoughtful land-use decisions and inclusive community planning. Examples of specific action steps elsewhere in the Plan that also provide health benefits include:

- Improve intersections to promote walkability and bikeability.
- Encourage the use of Low Impact Development strategies in new developments, public projects and buffers around lakes, wetlands and drains. Low impact development strategies emphasize conservation and use of onsite natural features to protect water quality.
- Address gaps in food accessibility in downtown urban neighborhoods by enabling produce stands, food trucks, or other temporary 'pop-up' opportunities to buy fresh food.
- Reevaluate floodplains and localized flooding data to determine where changes in zoning or building standards might be necessary to reduce the risk of property and infrastructure damage.
- Implement Low Impact Development strategies and green infrastructure in City parks for both environmental and educational benefits.

One important element of planning for increased health is acquiring data and measuring success. Local-level data on chronic health conditions, nutrition, and other health risk exposures can be difficult to obtain. The City should work to collect and summarize health data for the City of Holland and build on existing partnerships between City and County departments to identify measurable data related to health. The stakeholders and community leaders that gathered together for this planning process may be a good starting point to link discussions about planning to those in emergency response, public health, recreation, and public safety in Holland.

Connecting Climate and Health

As communities react to long-term changes in Michigan's climate, Master Plans provide an opportunity for cities to chart clear paths toward increased resiliency. As seen in Chapter 3, long-term changes to West Michigan's climate include an increase in heavy rain events, an increase in extreme heat and patterns of drought, and a general rise in average air and water temperatures. These and other climate trends have several implications for community health including increase incidents of:

- Hospitalization due to heat stress
- Respiratory problems like asthma, lung cancer, bronchitis, and pneumonia
- Waterborne diseases caused by bacteria growth in warmer water
- Vector-borne diseases, caused by increased populations of ticks and mosquitoes
- Mental distress and injury, caused by increases in extreme storms

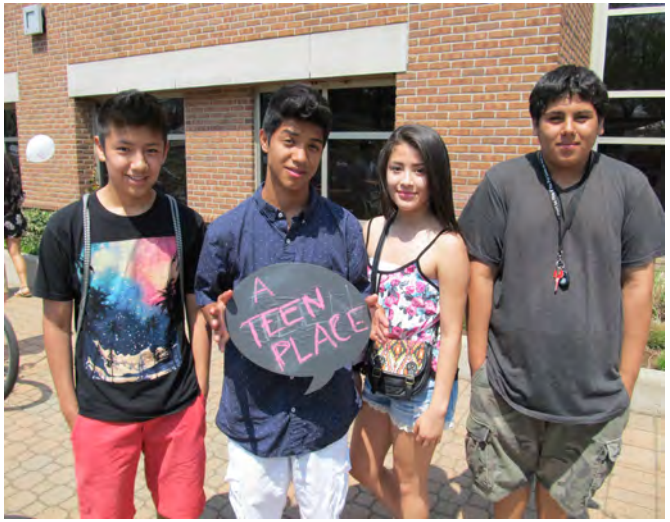
The City should assess these risks by partnering with public health officials to assess health data. Community organizations can help the City formulate a plan to raise awareness of risks and mitigate their impacts.

Increasing Resiliency to Natural Disasters

The City of Holland was chosen as a pilot project for a national effort to increase emergency preparedness and disaster recovery through the Red Cross. This resiliency planning effort brought together emergency managers, faith-based organizations, public health officials, school leaders, non-profits, businesses, community organizations, and the public to build capacity for stronger communication, identify vulnerabilities and risk areas, and plan for faster recovery from emergencies and disasters. The City should evaluate the results of this pilot project and integrate the project's recommendations into policies and goals city-wide, as appropriate.

Public Input Summary

Hollanders had a number of comments related to social services, vulnerable populations, and community health. In general, Holland residents appreciate living in a diverse community and would like to see more diversity in race, religion, ethnicity, age, and class. Residents would like to see increased resources for homeless youth, the disabled and the elderly, and an emphasis on equity and inclusiveness in City policy.



CHAPTER 5. HOW WE WILL GET THERE

This chapter provides direction and recommendations on how Holland can meet its land use and community development goals set in Chapter 4 of this plan. This chapter includes a Strategic Land Development Plan, Future Land Use Plan, and Zoning Plan to guide future decision making and policy changes.

Strategic Land Development Plan

The Strategic Land Development Plan (SLDP) was created in order to enhance the Future Land Use Plan, better define desired development patterns, and guide future policy and land-use decisions. The SLDP identifies areas within the City where existing development patterns should be maintained and enhanced. It also identifies areas where changes are encouraged and development patterns should be altered in order to reach the future vision for Holland described in the Future Land Use Plan.

The SLDP provides direction for policy and regulatory changes by identifying specific locations where significant changes in — or preservation of — development scale, character and form are preferred. In addition to identifying areas where development patterns are to be preserved or altered, the SLDP makes general recommendations for how building form and site design can be addressed in the Zoning Ordinance to facilitate transitions in development patterns. These recommendations could ultimately serve as a foundation for the development of form-based zoning standards and regulations for portions of the City in the future. The Strategic Land Development Map on the following page illustrates the locations of the following Strategic Land Development Areas.

NEIGHBORHOOD PRESERVATION AREAS

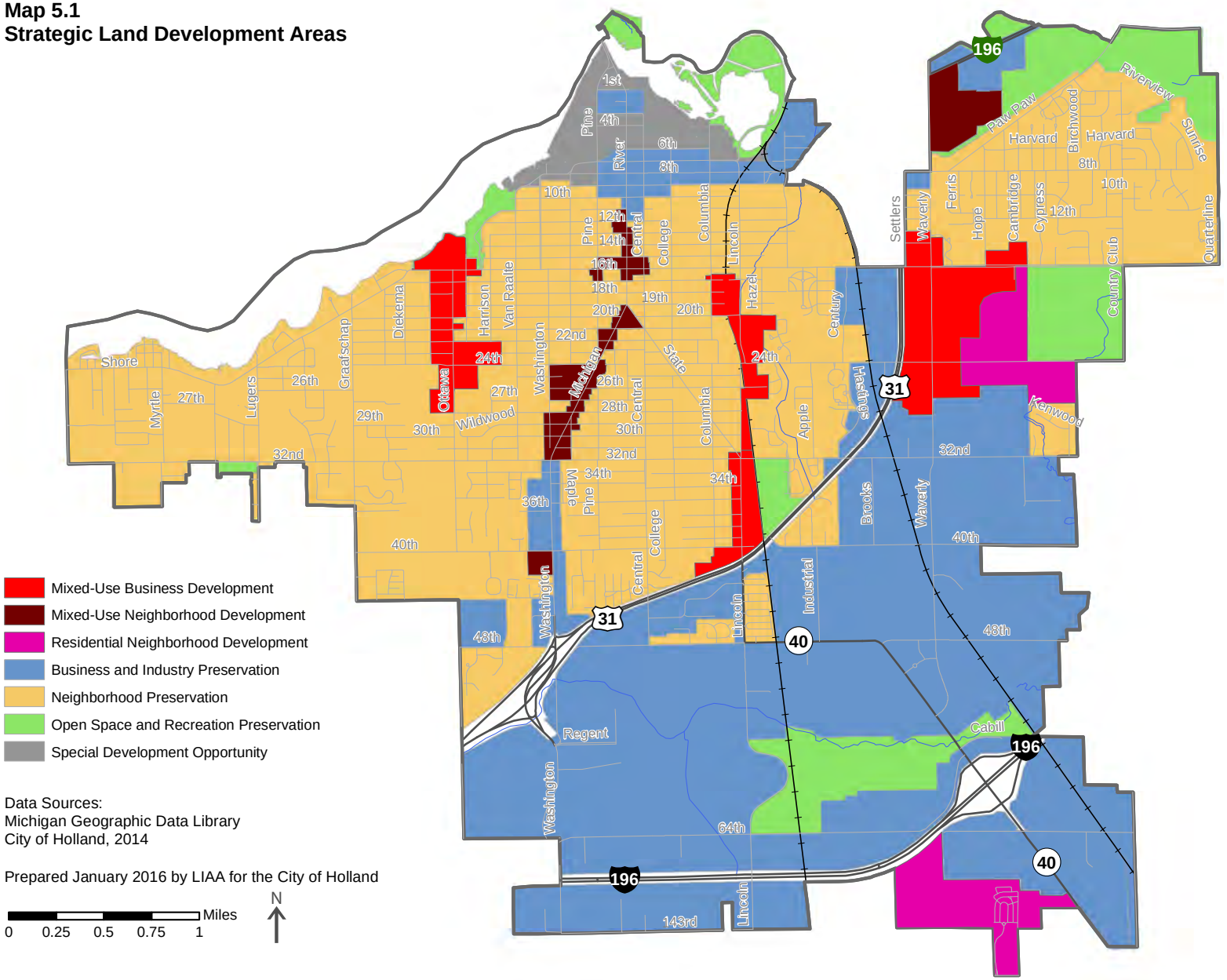
These areas identify neighborhoods where existing development patterns and character should be preserved and enhanced over time. These neighborhoods are well-established and generally consist of residential and small-scale neighborhood commercial uses. Redevelopment and infill development should preserve or reflect the existing character of the neighborhood.

The vibrant character of Holland's neighborhoods is valued by residents and should be preserved.

BUSINESS AND INDUSTRY PRESERVATION AREAS

These are areas where existing commercial and industrial uses are stable and consist of site

Map 5.1
Strategic Land Development Areas



development patterns that function well and are generally aesthetically pleasing. It is intended that land uses and development patterns within these areas remain and be enhanced over time. Redevelopment or infill development in these areas should complement the existing character of the surrounding blocks and buildings.

OPEN SPACE AND RECREATION PRESERVATION AREAS

Holland has a variety of valuable open spaces, natural areas, parks, and recreational lands that are vital pieces of the City. These spaces should be preserved and enhanced over time, either through the addition of amenities for public use or further protection of natural resources.

RESIDENTIAL NEIGHBORHOOD DEVELOPMENT AREAS

These are currently vacant lands or existing areas within residential neighborhoods where new types of residential development are allowed and encouraged. This can include development that has new or unique form and character while complementing the surrounding neighborhoods.

MIXED-USE BUSINESS DEVELOPMENT AREAS

These are areas where the development of new businesses and industries is allowed and encouraged. A mix of pedestrian-friendly uses and building forms is encouraged to help create vibrant nodes in these areas that serve as transitions between established neighborhoods. Adaptive reuse of existing structures is expected and encouraged. Residential development with higher densities and diverse unit types should also be encouraged in these areas.

MIXED-USE NEIGHBORHOOD DEVELOPMENT AREAS

These areas are along busier streets near existing, primarily residential neighborhoods where new development is permitted and encouraged to include higher densities and a mix of uses that creates walkable, vibrant centers of activity. Desired development in these areas includes higher density residential options, retail and office space, and entertainment and dining establishments. The design of future developments should incorporate multiple uses on individual properties and in single buildings. Buildings should front on the streets and, when appropriate, be multiple stories tall to help foster a “village-like” atmosphere.

SPECIAL DEVELOPMENT OPPORTUNITY AREAS

These areas represent locations in the City where land uses are transitioning or are expected to transition in the near future. These areas offer great opportunity for dynamic new development or redevelopment that capitalizes on close proximity to natural features and downtown Holland. Future development in these areas could range in intensity and use, but should complement downtown and the surrounding neighborhoods. Adaptive reuse of existing structures is encouraged, and development standards for these areas should be flexible in order to accommodate lively, well-designed projects that make the most of the special opportunities presented by these properties.

Open Space and Recreation Preservation Area example (top). Areas of potential land use change present exciting opportunities for the City (bottom).

IMPLEMENTING THE STRATEGIC LAND DEVELOPMENT PLAN

In order to facilitate the changes in development patterns described in the Strategic Land Development Plan (SLDP), it will be necessary to modify the City's Zoning Ordinance, which contains the standards and regulations for site design and land development in Holland. After analyzing the Ordinance, it may become clear that existing zoning standards do not adequately regulate site design and building form to create the desired types of future development for the areas described in the SLDP. It may be necessary to modify existing zoning districts, create new zoning districts, or create overlay districts that incorporate form-based zoning language that more specifically regulates site design and building form. For additional information about modification of the Zoning Ordinance to include form-based standards and regulations, please see the Zoning Plan found in this chapter.

While the incorporation of form-based standards and regulations in the Zoning Ordinance is a lengthy process that involves further discussion, analysis, and investigation by the Planning Commission and City staff, some general site design and building form recommendations that could facilitate desired changes described in the SLDP can be found in this section. Additionally, in order to better preserve the existing character of the preservation areas found in the SLDP, form-based zoning language that prevents deviation from existing development patterns may need to be added to existing or new zoning districts.

In urban areas like Downtown Holland (right), pedestrians are more comfortable with a continuous building edge along the sidewalk.

SITE DESIGN AND BUILDING FORM IN MIXED-USE BUSINESS DEVELOPMENT AREAS

Due to the desire to promote an eclectic variety of uses, densities, and building types in these areas, it may be wise to avoid over-regulating building form, construction materials, and façade treatments and focus primarily on standards related to site design and building placement. This will allow for the adaptive reuse of existing structures and the development of uniquely designed buildings among current uses while maintaining the desired relationship between building and street. Generally, the following principles help create the vibrant, walkable atmosphere called for in these areas.

- Increase flexibility in use standards – Modify the permitted use lists in these areas to allow for the wide variety of desired uses described in the SLDP and Future Land Use Plan. To provide further flexibility for future development, it would also be beneficial to allow multiple permitted uses within common structures and even common spaces within structures.
- Place buildings close to the street or sidewalk – Use a build-to line or a maximum front setback in place of a minimum front setback to ensure that buildings are sited close to sidewalks and streets to improve the relationship between pedestrians and drivers and the buildings. In urban areas, pedestrians are more comfortable with a continuous building edge along the sidewalk, due to the sense of enclosure it provides. Regulations that dictate the amount of wall area dedicated to windows, building materials, building height, and facade articulation can help buildings create that desired character and make people walking near them feel comfortable. Preferred building character and form elements should be carefully considered for this area.
- Locate parking areas where their visual impact is limited – Require that parking areas be located behind or to the side of buildings to limit their visual impact. The amount of a lot's street frontage that can be used for parking lots on the sides of buildings should be limited as well. Additionally, regulations that require parking areas to be screened by landscaping or other means could be considered.

Form-based codes can help change development patterns to meet a community's vision for its future.

SITE DESIGN AND BUILDING FORM IN MIXED-USE NEIGHBORHOOD DEVELOPMENT AREAS

The City desires to create a "village-like" atmosphere in these areas with increased densities and a greater variety of uses. To achieve this and still complement the character of the surrounding neighborhoods, it may be necessary to further regulate building placement, form and design. Generally, the following principles help create the traditional village atmosphere desired in these areas.

- Provide for a mix of uses – Modify the permitted use lists in these areas to allow for the desired mix of uses described in the SLDP and Future Land Use Plan.
- Regulate building placement, form, and design – People expect certain building forms and relationships between buildings and sidewalks in urban village-like settings. Generally, buildings should be sited at, or close to, sidewalks through the use of a build-to line. Continuous building facades along the sidewalk that incorporate desired design elements (such as large windows on ground floors, awnings, and appropriate building materials) should also be considered. Building heights should be regulated by a maximum number of stories, rather than dimension, in order to promote the creation of better buildings.
- Provide flexibility in parking standards – On-site parking should be kept to a minimum in order to maximize the usage of land area, provide desired densities, and limit visual impacts. Standards that promote the creation and use of public parking lots, shared parking lots, and on-street parking should be pursued.

Future Land Use Plan

The Future Land Use Plan and Future Land Use Map describe a generalized preferred organization of future land uses in the City of Holland. The Future Land Use Plan is a general framework used to guide land use and policy decisions within the City. A variety of factors were considered during the creation of the Future Land Use Plan, including existing land use, public input from the planning process, desired community character, development impacts on natural features, and future growth. The Future Land Use Map in this chapter shows general locations for the broad future land use areas described below.

RESIDENTIAL AREAS

Residential areas in Holland currently exist in a number of neighborhoods that provide a diverse range of housing options and character. Whether for new or infill development, new homes and residential structures should be built in a manner that complements existing neighborhood character while providing housing opportunities that meet the needs and desires of existing and future populations. The following types of residential land use are envisioned for Holland's future.

URBAN RESIDENTIAL

The intent of this district is to maintain traditional or historic neighborhoods in the City. The Urban Residential area is primarily characterized by single-family residential uses. However, attached single-family residential units such as row houses or townhomes and multi-story apartment buildings may be appropriate on arterial corridors in this district. These areas are generally found in the older neighborhoods of the City where smaller lot sizes and setbacks are common. Blocks in these areas are defined by traditional grid street patterns and sidewalks are prevalent. Many complementary uses (such as parks, schools, and places of worship) currently exist in these areas and should be preserved and encouraged in infill development. A traditional style of architecture should be promoted for infill development in these areas in order to help maintain the historic character of these neighborhoods.

NEO-TRADITIONAL RESIDENTIAL

The intent of this district is to provide for, encourage, and enhance the development of new residential neighborhoods that more closely resemble Holland's Urban Residential neighborhoods. These neighborhoods are designed to reflect more traditional development patterns, with gridded street networks, sidewalks, smaller lot sizes, smaller setbacks, and homes placed close to the fronts of lots. The primary use in these areas will be single-family detached residences, but attached single-family residential units should be encouraged in order to provide additional housing options like row houses or townhomes. This district also allows for small scale neighborhood commercial uses that support the surrounding residential neighborhood. This planning district is also applicable in Suburban Residential Districts where appropriate.

SUBURBAN RESIDENTIAL

The intent of this district is to provide for the development, preservation, and enhancement of Holland's Suburban Residential Neighborhoods which include single-family housing and condominium developments. This area supports single-family residential developments which are designed as one home on one lot. Also, condominium residential developments may be allowed along arterial streets and on the edge of established residential neighborhoods. Condominium developments are side by side attached houses, where one exterior door leads to one dwelling

Many homes with historic architectural character can be found in the Urban Residential areas.

unit. Streets in these districts do not necessarily need to follow a traditional grid pattern, and accompanying land uses should include parks, recreational lands, and institutional uses like schools and places of worship. Pedestrian connections are encouraged within developments and between these areas and adjacent neighborhoods, commercial areas, and parks.

APARTMENT RESIDENTIAL

The intent of this district is to provide for the construction and preservation of apartment complexes to provide higher-density housing options in close proximity to major streets. Design of apartment complexes in this area should be compatible with adjacent uses and provide for pedestrian connections to adjoining neighborhoods, recreational lands, and commercial areas.

MOBILE HOME RESIDENTIAL

The intent of this district is to provide for the allowance of planned mobile home parks within the City. Housing densities are relatively high in these areas due to smaller building sizes and closely spaced units.

COMMERCIAL AREAS

Holland's existing commercial areas vary in scale and character. Small neighborhood commercial nodes are scattered throughout the City's neighborhoods, providing for the daily needs of residents. Downtown Holland is a vibrant, bustling destination for both residents and visitors that maintains much of its historic character and charm. Other commercial areas in the City developed after the popularity of the automobile grew; these areas are located along major thoroughfares and primarily cater to drivers. Future development and redevelopment within commercial areas should be designed to complement the existing character of Holland and provide efficient transportation connections of all types to surrounding neighborhoods.

MARKETPLACE COMMERCIAL

The intent of this district is to accommodate dense mixed use developments centered on the commercial needs of the area and is expected to be primarily accessed by automobile and mass transit. Planned uses include, but are not limited to, hotels, restaurants, grocery stores, movie theaters, big-box retail stores, financial institutions, offices, apartments and condominiums.

HIGHWAY COMMERCIAL

The intent of this district is to accommodate commercial uses that serve the greater region and traveling motorists along highways in the City. Appropriate uses include, but are not limited to, hotels, restaurants, grocery stores, big box retail stores, automotive service stations, and apartment complexes when such apartments are adjacent to an existing or developing residential neighborhood. The nature of the uses in these areas often requires larger lots, building sizes, and parking lots. Sites should be designed to limit the visual impact of parking areas by placing them alongside and behind buildings as often as possible. Appropriate setbacks and landscaping should be incorporated in these districts to screen the commercial use from adjoining residential areas and to help beautify the commercial use.

ARTERIAL COMMERCIAL

The intent of the district is to promote a shift in commercial development patterns along busier streets in the City. New development standards and regulations for these areas should require that buildings be sited closer to streets to establish a stronger connection between the building and pedestrian amenities. Parking lots should be located to the rear and sides of buildings. Primary uses in Arterial Commercial areas include retail stores, restaurants,

In the future, the City will continue to provide a variety of housing options and settings.

banks, automobile service stations, grocery stores, medical offices, pharmacies, offices, and other related commercial and service uses.

NEIGHBORHOOD COMMERCIAL

The intent of this district is to accommodate small pockets of vibrant commercial activity within Holland's residential neighborhoods. These districts have traditionally served residents with specialized services and commercial opportunities while positively contributing to the character of the surrounding residential areas. Planned uses in these areas are intended to meet the daily needs of residents in a walkable, well-designed environment. Appropriate uses in these areas include, but are not limited to, small grocery stores, restaurants, specialty food stores, personal service establishments, small medical offices, and other related enterprises.

BUSINESS DEVELOPMENT AREA

The intent of this district is to provide the flexibility needed to preserve existing commercial and industrial uses while accommodating and encouraging an eclectic mix of unique new businesses, residential, small scale industry, and arts and cultural uses. Adaptive reuse of existing structures is encouraged, and standards for new and infill development should allow for the creative layout of sites and construction of buildings. Providing for flexibility of uses within structures is also planned for this area, including the allowance of live-work opportunities where living quarters, production space, and retail space can all be located in a common building.

CENTRAL DOWNTOWN

The intent of this district is to preserve and enhance the existing development patterns and inviting atmosphere of Downtown Holland typically found along 8th Street. The attractive, walkable form of central downtown and its mix of higher-density commercial and residential uses creates a vibrant environment that serves the region's residents and visitors with entertainment, dining, service, and shopping opportunities. Additional community service and institutional uses, such as Hope College related uses, can be found in this area as well. It is intended that this district maintain a high quality mix of diverse uses so that it remains a hub of activity and a community gathering place.

NORTHERN DOWNTOWN

The intent of this district is to provide for the preservation and development of a mix of uses with varying intensity that complement the historic and planned uses in the Central Downtown area. Planned uses for this area include, but are not limited to, higher-density housing options, offices, restaurants, small scale retail and small scale craft industrial uses and parks. Future development should be designed in a way that capitalizes on the area's close proximity to the Macatawa River while limiting environmental impacts.

WATERFRONT DOWNTOWN

The intent of this district is to plan for the redevelopment of the waterfront into a mixture of uses and the thoughtful preservation of existing industrial uses and buildings that result in a greater sense of connection to Lake Macatawa. Large sites and frontage on Lake Macatawa and the Macatawa River present unique opportunities for future redevelopment projects. Generally, future redevelopment should be designed to provide increased public access to the waterfront and create an energy that allows this area to be experienced by the public 24 hours a day and 365 days a year. Potential future redevelopment uses should

Neighborhood Commercial areas provide good and services to meet the daily needs of residents.

The Central Downtown designation is intended to preserve the inviting atmosphere of Downtown Holland.

focus on higher-density housing options, public open spaces, hotels, offices, and restaurants and allow for associated convenience retail.

MIXED-USE VILLAGE

The intent of this district is to provide for a change in development patterns, standards, and regulations in order to create concentrated areas of higher density with a mix of uses along primary streets within the City. It is envisioned that these areas become dense, walkable, vibrant spaces that mix residential and commercial uses within concentrated areas and on individual properties. Planned uses in these areas include retail, restaurant, entertainment, office, and service uses. Higher-density residential development, preferably within mixed-use buildings, is also encouraged. Development standards and regulations for these areas should encourage buildings to be placed close to streets, with parking areas located behind. In order to increase density to the levels desired, buildings will likely need to be multiple-story.

INDUSTRIAL AREAS

Industrial uses within Holland are important for the long-term viability of the City as they provide jobs for residents and a tax base for the City. Many of Holland's industrial businesses have been in the community for decades, and retaining them while adding new businesses will help strengthen the local economy. It is important to consider the potential impacts of industrial uses on adjacent neighborhoods and transportation corridors when planning for the future.

INDUSTRIAL

The intent of this district is to accommodate for the preservation and development of larger-scale industrial uses such as manufacturing, warehousing, food processing, material testing, and other high intensity industrial uses. The uses in these areas provide many employment opportunities for area residents and generally require large lots, buildings, parking lots, and loading areas. Sites and facilities should be developed with appropriate utility service and transportation links and limit any potential negative impacts on adjacent uses and natural resources.

RESEARCH AND DEVELOPMENT

The intent of this district is to accommodate uses that are industrial in nature but require additional office, testing, and prototyping facilities for groups of employees engaged in the design, engineering, and development of new products. Uses in this area typically require large sites, facilities, parking lots, and loading areas. Sites should be designed to limit impacts on surrounding neighborhoods and natural features.

AIRPORT BUSINESS DISTRICT

The intent of this District is to provide for the continued operation and development of the West Michigan Regional Airport and surrounding properties. Complementary commercial and industrial uses can be considered as long as they do not conflict with Airport activities.

PUBLIC AND CIVIC AREAS

Many institutional, civic, and public service uses exist within the City and are well-integrated into the City's neighborhoods. It is preferable that these types of uses remain spread throughout the City, and a specific future land use area solely intended for them has not been dedicated. Generally, institutional, civic, and public service uses like municipal offices, schools, small parks, churches, and hospitals are considered appropriate in the residential, commercial, and mixed-use future land use areas described in this chapter.

The Industrial areas on the Future Land Use Map provide for the preservation and development of larger-scale industrial uses.

ESSENTIAL SERVICE AREA

The intent of this district is to provide for the continued provision of necessary public utilities and services. Appropriate uses in these areas include the treatment of wastewater from the City's sewer system and the generation of power by the Holland Board of Public Works.

REGIONAL PARK

The intent of this district is to provide for the recreational needs of City residents and visitors alike. Park areas vary in size and intensity of development, but generally allow for both active and passive recreational opportunities and are open to the public. Smaller public parks exist within the City but are not included in this future land use area, as they are considered appropriate secondary uses in these residential, commercial, and mixed-use spaces.

OTHER AREAS

ENVIRONMENTALLY SENSITIVE AREAS

The intent of this district is to provide for the protection and preservation of valuable, sensitive natural areas and features like wetlands and bodies of water. Planned uses in these areas include parks, open spaces, and vegetative buffers. Development of all other uses in these areas should be prohibited.

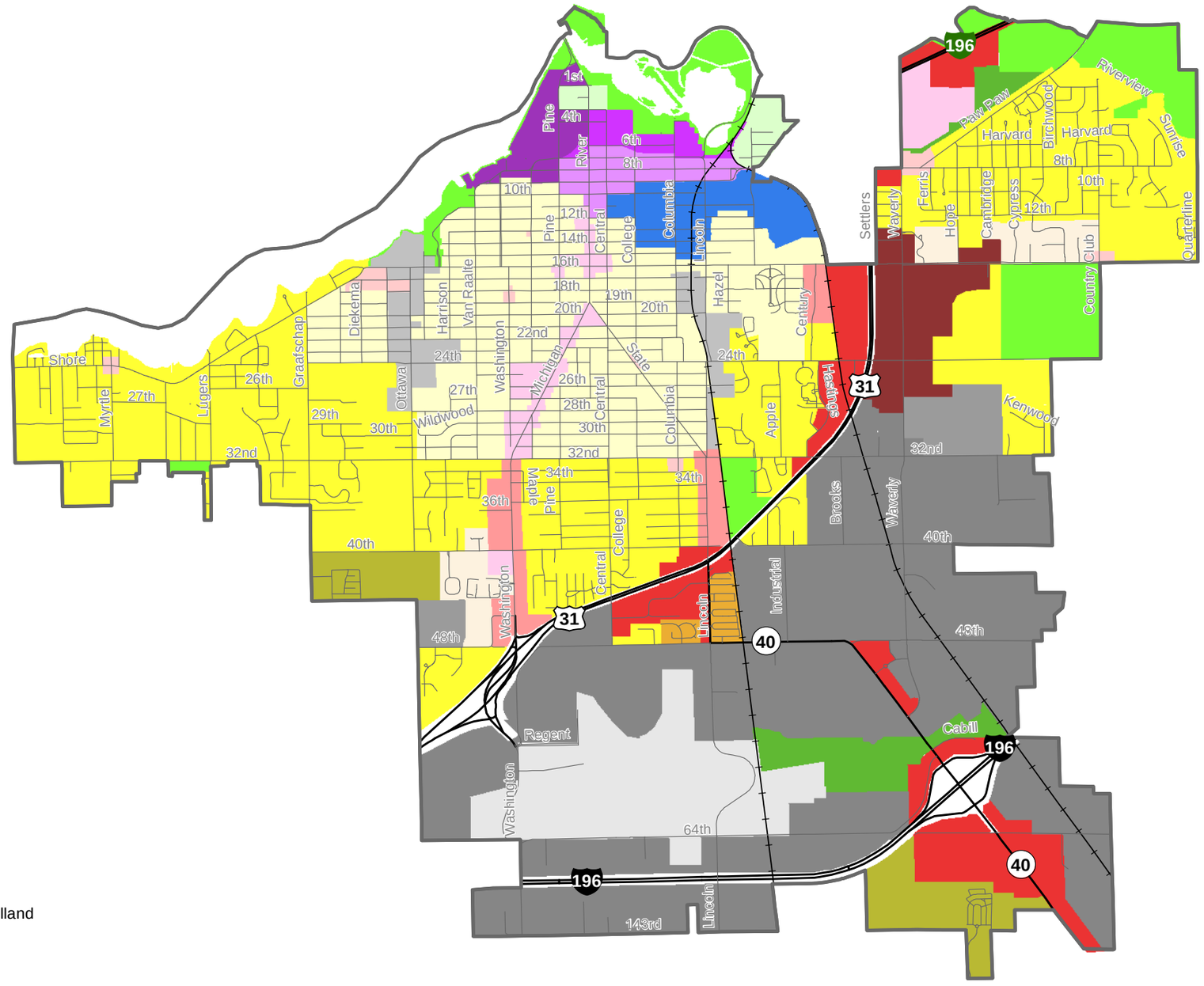
COLLEGE CAMPUS DISTRICT

The intent of this district is to provide for the preservation, development, and enhancement of the Hope College and Western Seminary campus and facilities. Appropriate uses in this area include educational buildings, dormitories, athletic complexes, auditoriums, open spaces, parking and residential housing.

Above: The City's parks provide both passive and active recreational opportunities for residents and visitors. Below: The College Campus District land use designation fosters the preservation, development, and enhancement of the Hope College campus and facilities.

Map 5.2
Future Land Use

- Airport Business District
- Business Development Area
- Research and Development
- Industrial
- Neighborhood Commercial
- Arterial Commercial
- Highway Commercial
- Marketplace Commercial
- Mixed-Use Village
- Central Downtown
- Northern Downtown
- Waterfront Downtown
- Urban Residential
- Suburban Residential
- Neo-Traditional Residential
- Apartment Residential
- Mobile Home Residential
- Essential Service Area
- Regional Park
- Environmentally Sensitive Areas
- College Campus District



Data Sources:
Michigan Geographic Data Library
City of Holland

Prepared January 2016 by LIAA for the City of Holland

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Zoning Plan

According to Section 2(d) of the Michigan Planning Enabling Act (Public Act 33 of 2008), a Master Plan must include a Zoning Plan that depicts the various zoning districts and their use, as well as standards for height, bulk, location, and use of buildings and premises. The Zoning Plan serves as the basis for the Zoning Ordinance.

RELATIONSHIP TO THE MASTER PLAN

The Master Plan describes the City's vision, goals, and objectives for future land use and design standards in Holland. As a key component of the Master Plan, the Zoning Plan is based on the recommendations of the Master Plan and is intended to identify areas where existing zoning is inconsistent with the objectives and strategies of the Master Plan. The Zoning Ordinance is the primary implementation tool for the future development of Holland. The Zoning Ordinance contains written regulations and standards that define how properties in specific geographic zones can be used and how they can look. The Zoning Plan is designed to guide the development of the Zoning Ordinance, based on the recommendations of the Master Plan.

CURRENT ZONING DISTRICTS

The Michigan Planning Enabling Act requires the Zoning Plan to inventory existing zoning districts. The following section summarizes the existing zoning districts in the City of Holland Zoning Ordinance. Table 5.1 provides an overview of several key building standards for new development in each zoning district. This section is only meant to provide an overview of the City's zoning districts and standards. In order to review zoning definitions, standards, and regulations in full detail, please see the full City of Holland Zoning Ordinance.

RESIDENTIAL DISTRICTS

The City has seven residential zoning districts, designed to provide a variety of housing types.

- **R-1 One-Family Residential District** - This district is intended to accommodate single-family residential uses, along with churches, schools, and other public uses.
- **R-2 One- and Two-Family Residential District** - This district is intended to accommodate two-family dwellings.
- **R-3 Residential District** - This district is intended to accommodate specific multi-family dwellings.
- **R-4 Mobile Home Development and Residential District** - This district is intended to accommodate mobile home developments.
- **R-5 Apartment District** - This district is intended to accommodate intensive residential uses and certain office uses.
- **R-6 Central Apartment District** - This district is intended to accommodate more intensive residential uses and certain office uses.
- **R-TRN Traditional Residential Neighborhood District** - This district provides for urban residential character in the central areas of the City.
- **PRD Planned Residential Development District** - This district allows for flexibility in residential development close to industrial or commercial districts. The district intends to encourage a variety of housing types including, but not limited to, condominiums, apartments, townhomes, and duplexes.

INDUSTRIAL DISTRICTS

The City has two industrial districts, designed to meet the needs of established and prospective industries.

- **I-1 Industrial District** - This district accommodates uses including, but not limited to, manufacturing, fabrication, assembly and similar operations, material storage and supply, construction trades, automotive services, and commercial uses.
- **I-2 Industrial District** - This district accommodates industrial uses including those appropriately suited to an industrial park, including, but not limited to manufacturing, research and development, storage or warehousing, processing or packaging, auto repair, and municipal services.

COMMERCIAL DISTRICTS

The City has five commercial districts, designed to provide for a variety of retail and commercial uses in the City.

- **C-1 Neighborhood Commercial District** - This district is intended to accommodate retail and commercial uses within particular residential neighborhoods. Permitted uses in this district include, but are not limited to, commercial sales, bakeries, banks, beauty shops, dry cleaners, office, retail, and music and dance studios.
- **C-2 Highway Commercial District** - This district is intended to accommodate general commercial and warehousing needs in the community, including, but not limited to, auto sales, marinas, and wholesale businesses.
- **C-3 Central Business District** - This district is intended to facilitate the mixed-use, pedestrian-friendly environment that is necessary for a viable downtown. The district accommodates a wide variety of uses including residential, government, retail, and entertainment.
- **C-4 Regional Shopping Center District** - This district is intended to accommodate the retail shopping and merchandising needs of the general community, with uses including stores, restaurants, gasoline and auto stores, and movie theaters.
- **C-5 Professional Office Service District** - This district is intended to accommodate a variety of office uses and also allows for residential and institutional uses. This district also is intended to locate office uses in proximity to highways and other major arterial streets, and to encourage office uses as a transitional use and character between adjacent commercial and residential land uses.

OTHER ZONING DISTRICTS

The City has a number of zoning districts that are not strictly residential, commercial, or industrial. These include:

- **AG Agricultural District** - This district is intended to accommodate agricultural and large lot residential uses. Other uses in this district include, but are not limited to, parks, wildlife preserves, and community centers.
- **ED Education District** - This district was established to accommodate the needs of educational campuses.
- **PUD Planned Unit Development District** - This district is intended to provide a degree of flexibility for development not attainable in the other zoning districts while ensuring architecturally complementary designs, significant green space, and uses that are compatible with nearby residences and businesses. Permitted uses include, but are not limited to, condominiums, retail, restaurants, hotels, and financial institutions.
- **WIND Windmill Island Neighborhood Business District** - This district is intended to facilitate the implementation of the Windmill Island Development Master Plan. The Windmill Island Development Master Plan aims to create a pedestrian-oriented, mixed-use district on Windmill Island with provisions to emphasize public gathering spaces, environmental protections, and community culture and history.
- **M-40 Corridor/South End Overlay Zone District** - This overlay district applies special protective measures (in the form of additional development requirements) to guarantee a high-quality gateway entrance to the City and a high-quality mixed-use neighborhood in this District.
- **I-196 Overlay Zone District** - This overlay district is intended to provide landscape and screening adjacent to I-196.

OPPORTUNITIES FOR ZONING CHANGES

In order to remain consistent with the community's vision for the future of Holland as identified in this Master Plan, a number of zoning ordinance amendments may be necessary. The following list identifies several opportunities to amend the City's zoning ordinance to be consistent with the goals and vision set forth in this Master Plan.

- Create and then promote Transit Oriented Development standards along major thoroughfares and arterial corridors
- Re-write the Zoning Ordinance to be a form-based code for parts of, or all of the City
- Create ordinance language that will allow for "pop-up" retail and food trucks
- Reevaluate floodplain and localized flooding data to determine where changes in zoning or building standards might be necessary to reduce the risk of property and infrastructure damage
- Create a new OS Open Space zone district
- Create an Airport Business zone district and rezoned airport lands to said new district
- Delete the R-6 Central Apartment zone district as there are no longer any properties with this zoning designation
- Delete the WIND Windmill Island Neighborhood Business zone district and rezone the Windmill Island area to the new OS Open Space zone district
- Reformulate the R-2 District to better accommodate single family attached housing developments along the arterial street fringes of existing neighborhoods
- Consider folding the R-5 District into a reformulated R-3 District to create a true apartment residential zone district
- Study existing R-2 zoned neighborhood areas to determine if they should be rezoned to the R-1 or R-TRN zone districts

- Determine if it may be feasible to delete the AG District if all existing AG zoned properties may be rezoned to other appropriate zone districts
- Create development standards for the Future Land Use Plan Map Business Development, Marketplace Commercial and Mixed-Use Village planning areas
- Create new landscaping standards for the Zoning Ordinance

Table 5.1 Zoning District Standards in the City of Holland Zoning Ordinance

Zoning District	Minimum Lot Size (Sq. Ft.)	Maximum Height (Ft.)	Minimum Side Setback (Ft.)	Minimum Back Setback (Ft.)	Minimum Front Setback (Ft.)	Minimum Lot Width (Ft.)
Residential Uses						
R-1 One-Family Residential District	8,400	35	7	25	30	70
R-2 One- and Two-Family Residential District	7,200	35	6	25	25	60
R-3 Residential District	5,000	45	5	25	25	50
R-4 Mobile Home Development and Residential District	10 Acres					
R-5 Apartment District	5,000	45	5	25	25	60
R-6 Central Apartment District	5,000	45	5	25	25	50
R-TRN Traditional Residential Neighborhood District	5,000	45	5	25	10	40
PRD Planned Residential District						
Non-Residential Uses						
I-1 Industrial District		40	30	24	25	
I-2 Industrial District		100	30	24	75	200
C-1 Neighborhood Commercial		35	0	24	0	
C-2 Highway Commercial		45	25	25	50	
C-3 Central Business District		75	0	0	0	
C-4 Regional Shopping Center District		60			50	
C-5 Professional Office Service District		35	0	5	10	
AG Agricultural District	14,000	45	20	25	30	100
ED Education District		75	25	25	0	
PUD Planned Unit Development District						
WIND Windmill Island Neighborhood Business District						
M-40 Corridor/South End Overlay Zone District						
I-196 Overlay Zone District						

EXPLORING FORM-BASED CODES

The City of Holland is interested in exploring the possibility of adopting form-based code (FBC) standards for appropriate areas of the City. Form-based codes are a method of regulating development to achieve a desirable urban form. Compared to traditional zoning ordinances, FBCs regulate development with a larger emphasis on the physical form of development, rather than the land use. FBCs can create a predictable, high-quality public realm, and can be used on an entire community or in particular locations. FBCs are vision-based, unique to individual places, and can be applied to undeveloped or redevelopment areas. FBCs differ from design standards; while design standards can improve building appearances and landscaping, FBCs can effectively change the underlying form of an area.

Ultimately, the inclusion of form-based code standards within the City's Zoning Ordinance would create a hybrid code, or a combination of a standard zoning ordinance and form-based code. In this case, zoning districts would still regulate the uses permitted within each area of the City, but would in certain instances provide additional form-based standards that apply to certain zoning districts.

FBC OPPORTUNITIES IN HOLLAND

- Downtown – Form-based code standards could be utilized to help preserve the existing character of downtown Holland. Standards and regulations addressing building height, building placement, façade treatments, roof articulation, and parking could all be considered.
- Mixed-Use Village Areas – Form-based code standards could be implemented in the areas designated as Mixed-Use Village in the Future Land Use Plan in order to promote a transition of development patterns to create the desired "village-like" atmosphere. Standards and regulations addressing building placement, building form, building type, façade treatment, and parking could all be utilized to promote the desired character for development and redevelopment.
- Business Development Areas – Form-based standards could help allow for greater flexibility in use and promote desired development patterns in the Business Development Areas defined in the Future Land Use Plan. A thorough investigation into the types of buildings and building forms that are desired for future development and redevelopment would help identify what type of form-based zoning standards, if any, would be appropriate in these areas.
- Residential Neighborhoods – In residential neighborhoods where certain residential building types and forms are deemed vitally important to neighborhood character, form-based zoning standards could be applied to prevent the construction of homes that look starkly different and out of place. Careful consideration of the types of form-based standards would be necessary in order to create the desired outcome.

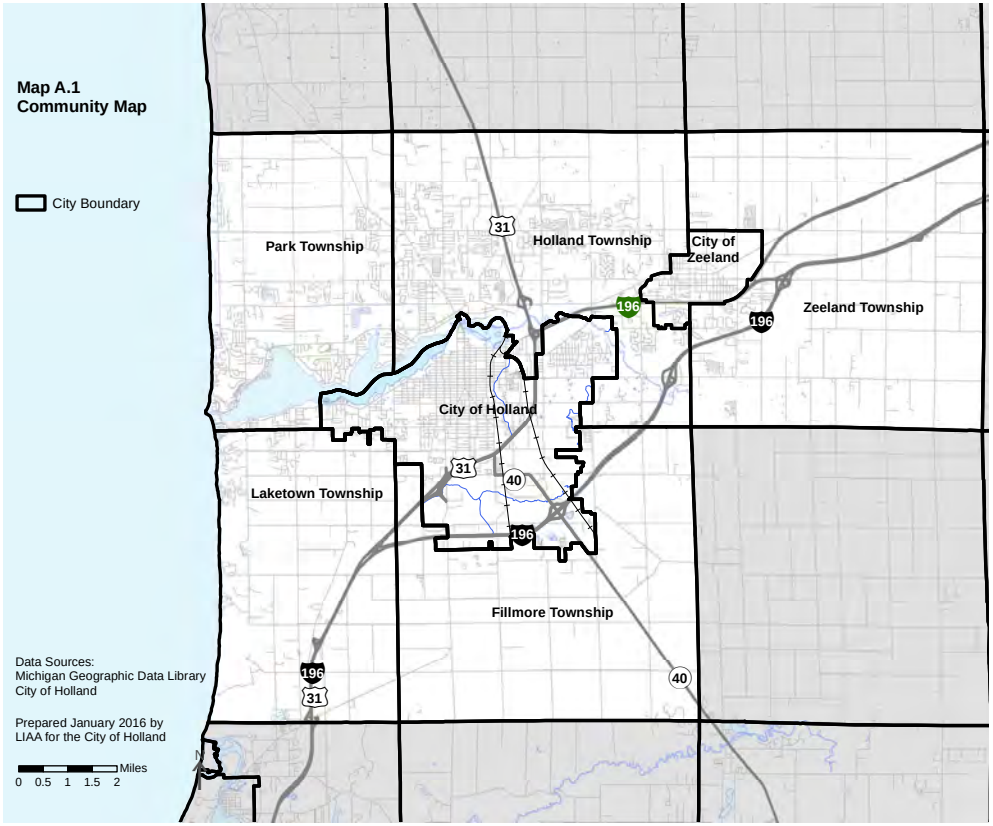
NEXT STEPS

This Master Plan can help guide the City should the City decide to implement a form-based code in the future. The City should undergo an extensive public process to investigate the feasibility and implementation of a form-based code. The public process should include an evaluation of existing conditions in areas where the community is considering adopting an FBC. This evaluation should create an inventory of lot widths, setbacks, building heights, building character, street right-of-ways, non-motorized infrastructure, and other components of the built environment. This inventory can be used to develop public consensus on the existing community qualities that should be maintained, and what the FBC may seek to achieve. Often, this public process occurs through a design charrette or workshop where the whole community is invited to participate. In addition to securing valuable input from residents, it is also important to educate the community on what an FBC is, how it can be useful, and how it may change existing regulations.

Many communities use the Urban-Rural Transect as a foundational tool to implement an FBC. The Urban-Rural Transect is useful in identifying zones throughout the community based on physical form, from natural zones to urban core zones. These zones can replace conventional separated-use zoning systems and provide a basis for development standards. The City of Holland used the Urban-Rural Transect to help inform the Existing Development Pattern Map and adapted the Transect to reflect the Holland community. The City can use the Transect, the Existing Development Pattern Map, the Strategic Land Development Plan, the results of the Resilient Holland Community Design Charrette (Appendix B), and the Future Land Use Plan to guide the development of a form-based code.

APPENDIX A. A REGIONAL PERSPECTIVE

This appendix contains a series of tables and accompanying text describing demographic characteristics and trends of the City of Holland, the City of Zeeland, Holland Township, Zeeland Township, Park Township, Laketown Township, and Fillmore Township. The data tables in this appendix build on the demographic information presented in Chapter 3 by including Holland's neighbors. These communities, shown on the map below, were chosen because they were each members of the original Macatawa Area Coordinating Council (MACC) and can provide a useful regional perspective. The information selected is useful for understanding the current conditions of the population, as well as planning for housing, service needs, and community development.



Understanding Census Data

The following pages show a number of datasets related to Holland's regional population. Data in this chapter comes from the United States Census Bureau, with the exception of population projections provided by the West Michigan Regional Planning Commission. In general, each table in this chapter uses 5-year estimated data collected from 2010 through 2014 by the American Community Survey (a United States Census Bureau product) to represent current conditions in the City of Holland and surrounding jurisdictions as shown on Map A.1 on the left. This data is labeled "2014" in the tables. Census data from the 2000 Census is used as a point of comparison, and a change in number and/or percentage (using a percent change formula) is also given. For example, Table A.1 shows the number of residents in each place for each year, and the percentage change from 2000 to 2014.

Table A.1 Total Population

	2000	2014	% Change 2000 to 2014
City of Holland	35,048	33,342	-4.9
City of Zeeland	5,805	5,566	-4.1
Holland Township	28,911	36,541	26.4
Zeeland Township	7,613	10,342	35.8
Park Township	17,579	18,149	3.2
Laketown Township	5,561	5,597	0.6
Fillmore Township	2,756	2,691	-2.4

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.2 Population Projections

	Actual Population	Projected Population		% Change
	2014	2020	2030	2014 to 2030
City of Holland	33,051	34,083	35,114	6.2
Zeeland	5,504	5,560	5,616	2.0
Holland Township	35,636	47,543	59,449	66.8
Zeeland Township	9,971	13,691	17,410	74.6
Park Township	17,802	20,604	23,406	31.5
Laketown Township	5,505	6,051	6,598	19.9
Fillmore Township	2,681	2,732	2,783	3.8

Source: American Community Survey (2010-14), West Michigan Regional Planning Commission (Projections)

Table A.1 shows the change in the population in six neighboring communities, in addition to the City of Holland, from 2000 to 2014. In general, the population of Holland, Zeeland, and Fillmore Township have lost population, while the other communities gained population, most notably Zeeland Township (35.8% increase) and Holland Township (26.4% increase). Table A.2 shows the projected changes in population as published by the West Michigan Regional Planning Commission. Overall, each community is expected to grow, with Zeeland Township and Holland Township expected to grow by the greatest percentage increase (74.6 percent and 66.8 percent respectively).

Table A.3 Population by Age

Age Range, In Years		City of Holland		City of Zeeland		Holland Twp		Zeeland Twp		Park Twp		Laketown Twp		Fillmore Twp	
		#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total
5 and under	2000	2,790	8.0	384	6.6	2,909	10.1	718	9.4	1,398	8.0	314	5.6	189	6.9
	2014	2,767	8.3	406	7.3	2,667	7.3	610	5.9	944	5.2	239	4.3	132	4.9
	Change	-23	-0.8	22	5.8	-242	-8.3	-108	-15.0	-454	-32.5	-75	-23.8	-57	-30.2
5 to 9	2000	2,512	7.2	422	7.3	2,659	9.2	777	10.2	1,536	8.7	422	7.6	240	8.7
	2014	2,034	6.1	351	6.3	2,667	7.3	920	8.9	1,307	7.2	401	7.2	124	4.6
	Change	-478	-19.0	-71	-16.9	8	0.3	143	18.5	-229	-14.9	-21	-5.0	-116	-48.4
10 to 19	2000	5,759	16.4	849	14.6	4,210	14.6	1,298	17.0	2,900	16.5	889	16.0	500	18.1
	2014	6,035	18.1	751	13.5	5,737	15.7	1,851	17.9	2,813	15.5	579	10.4	562	20.9
	Change	276	4.8	-98	-11.5	1,527	36.3	553	42.6	-87	-3.0	-310	-34.9	62	12.4
20 to 24	2000	4,218	12.0	331	5.7	2,278	7.9	434	5.7	727	4.1	263	4.7	168	6.1
	2014	3,634	10.9	395	7.1	2,887	7.9	652	6.3	1,034	5.7	150	2.7	199	7.4
	Change	-584	-13.8	64	19.3	609	26.7	218	50.2	307	42.2	-113	-43.0	31	18.5
25 to 44	2000	9,587	27.4	1,536	26.5	9,955	34.4	2,395	31.5	5,342	30.4	1,538	27.7	859	31.2
	2014	8,035	24.1	1,241	22.3	10,707	29.3	2,720	26.3	3,612	19.9	1,141	20.5	538	20.0
	Change	-1,552	-16.2	-295	-19.2	752	7.6	325	13.6	-1,730	-32.4	-397	-25.8	-321	-37.4
45 to 64	2000	5,442	15.5	933	16.0	4,858	16.8	1,441	18.9	4,328	24.6	1,509	27.0	576	20.9
	2014	6,568	19.7	1,180	21.2	8,185	22.4	2,658	25.7	5,662	31.2	1,887	33.9	810	30.1
	Change	1,126	20.7	247	26.5	3,327	68.5	1,217	84.4	1,334	30.8	378	25.1	234	40.6
65 and over	2000	4,740	13.6	1,350	23.3	2,042	7.0	550	7.2	1,348	7.7	626	11.3	224	8.1
	2014	4,268	12.8	1,236	22.2	3,654	10.0	951	9.2	2,813	15.5	1,180	21.2	323	12.0
	Change	-472	-10.0	-114	-8.5	1,612	78.9	401	73.0	1,465	108.7	554	88.5	99	44.2
Total Population	**2000**	**35,048**	**100**	**5,805**	**100**	**28,911**	**100**	**7,613**	**100**	**17,579**	**100**	**5,561**	**100**	**2,756**	**100**
	2014	**33,342**	**100**	**5,566**	**100**	**36,541**	**100**	**10,342**	**100**	**18,149**	**100**	**5,567**	**100**	**2,691**	**100**
	Change	**-1,706**	**-4.9**	**-239**	**-4.1**	**7,630**	**26.4**	**2,729**	**35.8**	**570**	**3.2**	**6**	**0.1**	**-65**	**-2.4**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Understanding the age distribution of a community can help identify social, economic, and public service needs in the community. Table A.3 identifies a number of trends including:

- In 2014, nearly every community had fewer young children (ages 5 to 9) than in the 2000.
- While only Holland Township and Zeeland Township gained residents ages 25 to 44 between 2000 and 2014, every community gained residents aged 45 to 64. This increase in residents could be caused by new residents in this age range, or existing residents that were counted in the 25 to 44 age range in 2000.
- The cities of Holland and Zeeland have fewer residents ages 65 and older in 2014 than in 2000, while each township gained residents in this age range.

Table A.4 Median Household Income, Adjusted for Inflation

	2000 (In 2014 inflation-adjusted dollars)	2014 dollars	% Change 2000 to 2014
City of Holland	60,095	44,619	-25.8
City of Zeeland	64,813	40,561	-37.4
Holland Township	70,279	55,208	-21.4
Zeeland Township	74,003	66,326	-10.4
Park Township	92,830	71,455	-23.0
Laketown Township	86,528	65,313	-24.5
Fillmore Township	75,268	51,541	-31.5

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014), adjusted for inflation using the Bureau of Labor Statistics Inflation Calculator

Household income is a key measure of the economic condition of the community. One useful way to measure income is through Median Household Income, or the amount of money the "middle" household makes in the community. Table A.4 shows that the median household income in each community decreased between 2000 and 2014. In the City of Holland, median household income decreased by nearly 26 percent, while the City of Zeeland saw a 37.4 percent decrease. Zeeland Township and Holland township saw the most modest decreases in median household income with decreases of 10.4 and 21.4, respectively. The 2000 dollar values were adjusted for inflation according to the Bureau of Labor Statistics Inflation Calculator, using the Consumer Price Index for the year 2014.

Table A.5 Percent of Population Ages 25 and Over with at Least a Bachelor's Degree

Year	City of Holland	City of Zeeland	Holland Twp	Zeeland Twp	Park Twp	Laketown Twp	Fillmore Twp
1990	22.5	16.0	11.3	10.0	30.4	17.9	9.3
2000	26.9	22.0	22.7	18.8	39.8	30.9	13.9
2014	30.3	27.9	24.1	24.3	41.5	42.8	15.3

Source: U.S. Census Bureau (1990, 2000), American Community Survey (2010-2014)

Educational attainment is another measure of the community's economic condition. The percentage of the adult population (defined in Table A.5 as ages 25 and over) with at least a Bachelor's degree has steadily increased since 1990 in every community, including the City of Holland. In 1990, the City of Holland had the second highest percentage, with 22.5% of the adult population ages 25 and over having at least a Bachelor's degree. In 2014, the City of Holland has a relatively high percentage compared to neighboring communities, third to Laketown Township and Park Township.

Table A.6 Race

		City of Holland		City of Zeeland		Holland Twp		Zeeland Twp		Park Twp		Laketown Twp		Fillmore Twp	
		#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total
White alone, not Hispanic	2000	24,543	70.0	5,324	91.7	20,897	72.3	6,858	90.1	15,961	90.8	5,241	94.2	2,557	92.8
	2014	21,785	65.3	4,714	84.7	22,810	62.4	8,790	85.0	15,756	86.8	5,224	93.8	2,307	85.7
	Change	-2,758	-11.2	-610	-11.5	1,913	9.2	1,932	28.2	-205	-1.3	-17	-0.3	-250	-9.8
Hispanic	2000	7,783	22.2	269	0.8	4,574	13.1	481	1.4	959	2.7	206	0.6	125	0.4
	2014	8,159	24.5	497	1.5	8,890	26.7	895	2.7	1,604	4.8	274	0.8	358	1.1
	Change	376	4.8	228	84.8	4,316	94.4	414	86.1	645	67.3	68	33.0	233	186.4
Black alone, not Hispanic	2000	819	2.3	32	0.1	609	1.7	44	0.1	70	0.2	27	0.1	15	0.0
	2014	1,278	3.8	52	0.2	591	1.8	64	0.2	200	0.6	13	0.0	10	0.0
	Change	459	56.0	20	62.5	-18	-3.0	20	45.5	130	185.7	-14	-51.9	-5	-33.3
Asian alone, not Hispanic	2000	1,236	3.5	76	0.2	2,263	6.5	132	0.4	374	1.1	47	0.1	33	0.1
	2014	1,388	4.2	56	0.2	3,211	9.6	442	1.3	202	0.6	49	0.1	0	0.0
	Change	152	12.3	-20	-26.3	948	41.9	310	234.8	-172	-46.0	2	4.3	-33	-100.0
Other, Two or more races, not Hispanic	2000	589	1.7	104	0.3	568	1.6	98	0.3	215	0.6	40	0.1	26	0.1
	2014	732	2.2	247	0.7	1,039	3.1	151	0.5	387	1.2	7	0.0	16	0.0
	Change	143	24.3	143	137.5	471	82.9	53	54.1	172	80.0	-33	-82.5	-10	-38.5
Total Population	**2000**	**35,048**	**100.0**	**5,805**	**100.0**	**28,911**	**100.0**	**7,613**	**100.0**	**17,579**	**100.0**	**5,561**	**100.0**	**2,756**	**100.0**
	2014	**33,342**	**100.0**	**5,566**	**100.0**	**36,541**	**100.0**	**10,342**	**100.0**	**18,149**	**100.0**	**5,567**	**100.0**	**2,691**	**100.0**
	Change	**-1,706**	**-4.9**	**-239**	**-4.1**	**7,630**	**26.4**	**2,729**	**35.8**	**570**	**3.2**	**6**	**0.1**	**-65**	**-2.4**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

The racial diversity and composition of a community is useful information for understanding demographic changes in population, the cultural assets, strengthening institutional and social networks, and for fostering a sense of community among new residents. Generally, more racial and ethnic diversity is associated with strengthened cultural institutions and greater innovation in educational systems and local businesses. Researchers have also found that racially diverse residential neighborhoods tend to provide better access to jobs and other resources compared to more segregated or homogeneous communities.[1]

Table A.6 shows that the racial makeup of the seven communities are changing. For example, the Hispanic population increased by 94.4% from 2000 to 2014 in Holland Township, 86.1% in Zeeland Township, and 84.8% in the City of Zeeland. In 2000, the City of Holland had the most Hispanic residents (7,783), second in 2014 only to Holland Township (with 8,890 Hispanic residents). The African American, or Black alone, population has also shifted since 2000. The City of Holland gained 459 Black alone residents, more than any other community. In general, even as several communities, including the City of Holland and the City of Zeeland have lost overall population, the number and percentage change of Hispanic, Black, and other non-white races have increased.

1 Margery Austin Turner, "Segregation and Employment Inequality," in James H. Carr and Nandinee K. Kutty, eds., Segregation: The Rising Costs for America (New York: Routledge, 2008), p. 133.

The next several pages discuss information on the number of households and individuals that live below the poverty threshold in the City of Holland and neighboring communities. The U.S. Census Bureau determines a dollar value threshold that varies each year by family size, age of the householder, and family composition. If a family's total income is less than the dollar value threshold, then every individual in the family is considered in poverty. Non-related persons living with an individual or family in poverty are not considered in poverty. As an example, the dollar value threshold for a family of five members (composed of three adults and two children), was $28,960 in 2014. The U.S. Census uses one measurement of poverty, but many government aid programs and other organizations may define poverty differently.[1]

Table A.7 Total Population Below Poverty

		City of Holland		City of Zeeland		Holland Township		Zeeland Township		Park Township		Laketown Township		Fillmore Township	
		#	% of total population	#	% of total population	#	% of total population	#	% of total population	#	% of total population	#	% of total population	#	% of total population
Total Population Below Poverty	2000	3,430	10.6	260	4.6	1,776	6.3	474	8.4	457	2.6	155	2.8	151	5.4
	2014	5,653	18.9	819	15.6	4,389	12.0	907	8.9	1,120	6.2	296	5.3	296	11.0
	Change	2,223	64.8	559	215.0	2,613	147.1	433	91.4	663	145.1	141	91.0	145	96.0

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.7 shows that over 5,600 residents of the City of Holland lived in poverty in 2014, more than any other community. While the poverty rate in the City of Holland was the highest (18.9% of total population), other communities are also experiencing a large increase in residents now living below the poverty threshold. For example, the City of Zeeland's population living in poverty has more than doubled since 2000, increasing by 559 residents and growing by 215 percent. Dramatic changes in income, stagnant wage growth, job loss, or increasing housing costs can all contribute to reducing income below the poverty threshold. This information alone does not pinpoint who is experiencing poverty or identify any causes of the increase in poverty. However, it is clear that the City of Holland, while having the greatest number of residents in poverty, is not the only community experiencing increases in the number of residents living below the poverty threshold.

Table A.8 provides more information on the number of households (not necessarily families, as non-family households can still be in poverty) that struggle with living below the poverty threshold. The columns in Table A.8 show the total number of households in poverty, the total number of all households, and the percentage of households that live below poverty in each community. While there are more households living below poverty in 2014 than there were in 2000 in each community, the City of Holland gained significant numbers of households living in poverty despite overall population loss. Other communities, like Holland Township, Park Township, and the City of Zeeland have at least 200 additional households living at or below poverty since 2000.

1 For more information on how the U.S. Census Bureau defines poverty, see the webpage titled *How the Census Bureau Measures Poverty* page at https://www.census.gov/hhes/www/poverty/about/overview/measure.html

Table A.8 Households in Poverty

	City of Holland			City of Zeeland			Holland Township			Zeeland Township			Park Township			Laketown Township			Fillmore Township		
Year	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total	HHs in Poverty	Total HHs	% of Total
2000	1,207	12,044	10.0	122	2,273	5.4	527	9,735	5.4	173	2,563	6.7	145	6,108	2.4	74	2,065	3.6	42	943	4.5
2014	1,850	11,452	16.2	344	2,304	14.9	1,394	12,940	10.8	228	3,393	6.7	426	6,486	6.6	72	2,295	3.1	135	937	14.4
Change 2000 to 2014	643	-592	53.3	222	31	182.0	867	3,205	164.5	55	830	31.8	281	378	193.8	-2	230	-2.7	93	-6	221.4

Source: U.S. Census Bureau (2000) American Community Survey 5-year estimates (2010-14)

Table A.9 shows the age distribution of the total population living in poverty in 2000 and 2014. In general, the number of residents in poverty in each age range increased in nearly every community, but there does not appear to be a consistent trend as to the degree of increase across the communities. In general, half or nearly half of those living in poverty in each community are 18 to 64 years old. From 2000 to 2014, the increase in the number of residents in poverty (in each age range and overall) was the highest in Holland Township, while the rate of growth in poverty in the City of Holland was the slowest. This suggests that the City of Holland, while having the most residents in poverty in 2014, has experienced a slower increase, while the other communities are experiencing rapid increases.

Table A.9 Total Population Below Poverty by Age

		City of Holland		City of Zeeland		Holland Township		Zeeland Township		Park Township		Laketown Township		Fillmore Township	
Age Range (Years)		#	% of total population below poverty	#	% of total population below poverty	#	% of total population below poverty	#	% of total population below poverty	#	% of total population below poverty	#	% of total population below poverty	#	% of total population below poverty
17 and Under	2000	949	27.7	95	36.5	678	38.2	222	46.8	147	32.2	41	26.5	47	31.1
	2014	1,870	33.1	334	40.8	1,718	39.1	365	40.2	374	33.4	133	44.9	75	25.3
	Change	921	97.0	239	251.6	1,040	153.4	143	64.4	227	154.4	92	224.4	28	59.6
18 to 64	2000	2,205	64.3	127	48.8	996	56.1	186	39.2	302	66.1	87	56.1	104	68.9
	2014	3,427	60.6	367	44.8	2,359	53.7	519	57.2	621	55.4	154	52.0	191	64.5
	Change	1,222	55.4	240	189.0	1,363	136.8	333	179.0	319	105.6	67	77.0	87	83.7
65 and Over	2000	276	8.0	38	14.6	102	5.7	66	13.9	8	1.8	27	17.4	0	0.0
	2014	356	6.3	118	14.4	312	7.1	23	2.5	125	11.2	9	3.0	30	10.1
	Change	80	29.0	80	210.5	210	205.9	-43	-65.2	117	1462.5	-18	-66.7	30	-
Total Population below Poverty	**2000**	**3,430**	**100**	**260**	**100**	**1,776**	**100**	**474**	**100**	**457**	**100**	**155**	**100**	**151**	**100**
	2014	**5,653**	**100**	**819**	**100**	**4,389**	**100**	**907**	**100**	**1,120**	**100**	**296**	**100**	**296**	**100**
	Change	**2,223**	**64.8**	**559**	**215.0**	**2,613**	**147.1**	**433**	**91.4**	**663**	**145.1**	**141**	**91.0**	**145**	**96.0**

Source: U.S. Census Bureau (2000) American Community Survey 5-year estimates (2010-14)

Table A.10 Industry by Occupation

		Holland City		Zeeland City		Holland Twp		Zeeland Twp		Park Twp		Laketown Twp		Fillmore Twp	
		#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total
Agriculture, forestry, fishing and hunting, and mining	2000	134	0.8	0	0	226	1.5	0	0	38	0.4	30	1	125	8.7
	2014	391	2.6	29	1.3	724	3.8	149	2.9	129	1.5	81	2.9	73	5.6
	Change	257	191.8	29	-	498	220.4	149	-	91	239.5	51	170.0	-52	-41.6
Construction	2000	662	3.8	157	5.7	614	4.1	157	5.7	370	4	218	7.1	85	5.9
	2014	608	4.0	127	5.7	724	3.8	298	5.7	387	4.4	169	6.1	85	6.5
	Change	-54	-8.2	-30	-19.1	110	17.9	141	89.8	17	4.6	-49	-22.5	0	0.0
Manufacturing	2000	5,723	33.2	966	35.2	6,300	41.7	966	35.2	3,267	35.7	894	29.3	408	28.3
	2014	4,196	27.6	624	28.0	6,889	36.2	1,677	32.1	2,651	30.4	474	17.2	425	32.4
	Change	-1,527	-26.7	-342	-35.4	589	9.3	711	73.6	-616	-18.9	-420	-47.0	17	4.2
Wholesale trade	2000	510	3.0	137	5	436	2.9	137	5	360	3.9	107	3.5	50	3.5
	2014	267	1.8	75	3.4	230	1.2	181	3.5	217	2.5	69	2.5	57	4.3
	Change	-243	-47.6	-62	-45.3	-206	-47.2	44	32.1	-143	-39.7	-38	-35.5	7	14.0
Retail trade	2000	1,876	10.9	254	9.3	1,641	10.9	254	9.3	958	10.5	305	10	151	10.5
	2014	1,407	9.3	286	12.8	1,718	9.0	674	12.9	1,015	11.6	178	6.5	135	10.3
	Change	-469	-25.0	32	12.6	77	4.7	420	165.4	57	5.9	-127	-41.6	-16	-10.6
Transportation and warehousing, and utilities	2000	392	2.3	77	2.8	400	2.6	77	2.8	336	3.7	159	5.2	66	4.6
	2014	444	2.9	93	4.2	709	3.7	127	2.4	358	4.1	103	3.7	38	2.9
	Change	52	13.3	16	20.8	309	77.3	50	64.9	22	6.5	-56	-35.2	-28	-42.4
Information	2000	392	2.3	33	1.2	128	0.8	33	1.2	78	0.9	11	0.4	29	2
	2014	198	1.3	0	0.0	183	1.0	0	0.0	122	1.4	21	0.8	17	1.3
	Change	-194	-49.5	-33	-100.0	55	43.0	-33	-100.0	44	56.4	10	90.9	-12	-41.4
Finance, insurance, real estate and rental and leasing	2000	562	3.3	149	5.4	559	3.7	149	5.4	430	4.7	151	4.9	71	4.9
	2014	477	3.1	79	3.5	563	3.0	197	3.8	477	5.5	122	4.4	49	3.7
	Change	-85	-15.1	-70	-47.0	4	0.7	48	32.2	47	10.9	-29	-19.2	-22	-31.0
Professional, scientific, management, administrative, and waste management	2000	832	4.8	132	4.8	867	5.7	132	4.8	573	6.3	136	4.5	58	4
	2014	1,259	8.3	154	6.9	1,387	7.3	125	2.4	706	8.1	321	11.7	41	3.1
	Change	427	51.3	22	16.7	520	60.0	-7	-5.3	133	23.2	185	136.0	-17	-29.3
Educational, health and social services	2000	3,655	21.2	565	20.6	2,000	13.2	565	20.6	1,823	19.9	597	19.6	290	20.1
	2014	3,510	23.1	385	17.3	3,237	17.0	1,016	19.4	1,841	21.1	812	29.5	241	18.4
	Change	-145	-4.0	-180	-31.9	1,237	61.9	451	79.8	18	1.0	215	36.0	-49	-16.9
Arts, entertainment, recreation, accommodation and food services	2000	1,393	8.1	104	3.8	928	6.1	104	3.8	490	5.4	187	6.1	39	2.7
	2014	1,425	9.4	199	8.9	1,585	8.3	346	6.6	488	5.6	220	8.0	59	4.5
	Change	32	2.3	95	91.3	657	70.8	242	232.7	-2	-0.4	33	17.6	20	51.3
Other services (except public administration)	2000	736	4.3	123	4.5	735	4.9	123	4.5	345	3.8	200	6.6	55	3.8
	2014	755	5.0	156	7.0	832	4.4	321	6.1	183	2.1	140	5.1	59	4.5
	Change	19	2.6	33	26.8	97	13.2	198	161.0	-162	-47.0	-60	-30.0	4	7.3
Public administration	2000	359	2.1	48	1.7	272	1.8	48	1.7	73	0.8	58	1.9	14	1
	2014	241	1.6	22	1.0	249	1.3	115	2.2	149	1.7	43	1.6	33	2.5
	Change	-118	-32.9	-26	-54.2	-23	-8.5	67	139.6	76	104.1	-15	-25.9	19	135.7
Total Employed Population Ages 16 and Over	**2000**	**17,226**	**100**	**2,745**	**100**	**15,106**	**100**	**2,745**	**100**	**9,141**	**100**	**3,053**	**100**	**1,441**	**100**
	2014	**15,178**	**100**	**2,229**	**100**	**19,030**	**100**	**5,226**	**100**	**8,723**	**100**	**2,753**	**100**	**1,312**	**100**
	Change	**-2,048**	**-11.9**	**-516**	**-18.8**	**3,924**	**26.0**	**2,481**	**90.4**	**-418**	**-4.6**	**-300**	**-9.8**	**-129**	**-9.0**

Source: U.S. Census Bureau (2000), American Community Survey 5-year estimates (2010-14)

Table A.10 shows the number of jobs in various industries in each community. In terms of total jobs, Holland Township and Zeeland Township were the only two communities in the region to gain jobs. However, the number of communities, including the City of Holland, did gain jobs in a number of industries including agriculture, professional, and arts and entertainment. Overall, the region lost 2,905 manufacturing jobs from 2000 to 2014, but Holland Township and Zeeland Township gained manufacturing jobs during this same time period.

Table A.11 Median Income and Housing Costs

		Holland City	Zeeland City	Holland Twp	Zeeland Twp	Park Twp	Laketown Twp	Fillmore Twp
Median Household Income	2000 (shown in 2014 dollars)	60,095	64,813	70,279	74,003	92,830	86,528	75,268
	2014	44,619	40,561	55,208	66,326	71,455	65,313	51,541
	% Change	-25.8	-37.4	-21.4	-10.4	-23.0	-24.5	-31.5
Median Gross Rent	2000 (shown in 2014 dollars)	757	819	836	812	829	797	804
	2014	779	664	743	705	909	803	907
	% Change	2.9	-18.9	-11.1	-13.2	9.7	0.8	12.8
Median Owner-Occupied Home Value	2000 (shown in 2014 dollars)	144,076	155,074	167,172	177,896	217,214	218,176	176,521
	2014	115,800	119,600	134,200	161,500	207,000	204,700	152,700
	% Change	-19.6	-22.9	-19.7	-9.2	-4.7	-6.2	-13.5

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.11 demonstrates the change in median household income, median gross rent, and median value of owner-occupied homes in each community between 2000 and 2014. All values from the year 2000 have been multiplied by the inflation rate from 2000 to 2014, according to the United States Bureau of Labor Statistics. In general, this table shows that the spending power of households in the City of Holland, measured in the median household income, has decreased by nearly 26%. The median gross rent of units within the City has increased by about 3 percent, while the value of an owner-occupied home has decreased by about 20%. In other words, this table shows that the price to rent or purchase a housing unit has become relatively more expensive than it was in 2000. Median gross rent, notably, increased despite the decreased spending power of households.

Table A.12 Units in Structure

		Holland City		Zeeland City		Holland Twp		Zeeland Twp		Park Twp		Laketown Twp		Fillmore Twp	
		#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units
1 Unit	2000	8,477	67.5	1,627	66.9	6,636	64.3	1,706	65	6,189	89.4	2,091	88.2	821	83.5
	2014	8,206	66.4	1,521	66	8,855	64.9	2,587	74.7	6,721	88.9	2,322	89	854	82.9
	Change	-271	-3.2	-106	-6.5	2,219	33.4	881	51.6	532	8.6	231	11.0	33	4.0
2 Units	2000	986	7.9	215	8.8	356	3.5	24	0.9	57	0.8	30	1.3	23	2.3
	2014	922	7.5	115	5	292	2.1	12	0.3	34	0.4	59	2.3	31	3
	Change	-64	-6.5	-100	-46.5	-64	-18.0	-12	-50.0	-23	-40.4	29	96.7	8	34.8
3 to 19 Units	2000	1,824	14.5	304	12.5	1,697	16.4	78	2.9	341	5	181	7.7	11	1.1
	2014	1,788	14.4	421	18.3	2,547	18.7	200	5.8	395	5.3	178	6.8	16	1.6
	Change	-36	-2.0	117	38.5	850	50.1	122	156.4	54	15.8	-3	-1.7	5	45.5
20 Units	2000	900	7.2	285	11.7	475	4.6	0	0	33	0.5	13	0.5	0	0
	2014	1,151	9.3	247	10.7	485	3.6	19	0.5	0	0	0	0	0	0
	Change	251	27.9	-38	-13.3	10	2.1	19	-	-33	-100.0	-13	-100.0	-	-
Mobile Home	2000	371	3	0	0	1,136	11	814	31	303	4.4	55	2.3	128	13
	2014	302	2.4	0	0	1,469	10.8	646	18.6	411	5.4	48	1.8	130	12.6
	Change	-69	-18.6	-	-	333	29.3	-168	-20.6	108	35.6	-7	-12.7	2	1.6
Boat, RV, or other	2000	0	0	0	0	9	0.1	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Change	-	-	-	-	-9	-100.0	-	-	-	-	-	-	-	-

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.12 shows the housing units of each community, classified by the number of units within each housing structure. The table also shows housing units in mobile homes, boats, RVs, or other types of structures. In general, from 2000 to 2014, nearby townships experienced an increase in single unit dwellings, which are presumably single family homes. The City of Holland saw the greatest increase in housing structures that have 20 or more units.

Table A.13 Occupancy and Vacancy

		Holland City		Zeeland City		Holland Twp		Zeeland Twp		Park Twp		Laketown Twp		Fillmore Twp	
		#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units	#	% of total units
Occupied	2000	11,971	95.5	2,283	95.6	9,821	94.6	2,523	96.9	6,113	88.3	2,080	87.7	937	95.9
	2014	11,452	92.6	2,304	100	12,940	94.8	3,393	98	6,486	85.8	2,295	88	937	90.9
	Change	-519	-4.3	21	0.9	3,119	31.8	870	34.5	373	6.1	215	10.3	0	0.0
Vacant (non-seasonal)	2000	451	3.6	98	4.1	501	4.8	68	2.6	178	2.6	61	2.6	39	4
	2014	757	6.1	0	0	525	3.8	71	2	480	6.3	36	1.4	54	5.2
	Change	306	67.8	-98	-100.0	24	4.8	3	4.4	302	169.7	-25	-41.0	15	38.5
Vacant (seaonal)	2000	111	0.9	8	0.3	63	0.6	13	0.5	635	9.2	232	9.8	1	0.1
	2014	160	1.3	0	0	183	1.3	0	0	595	7.9	276	10.6	40	3.9
	Change	49	44.1	-8	-100.0	120	190.5	-13	-100.0	-40	-6.3	44	19.0	39	3900.0
Total Housing Units	**2000**	**12,533**	**100**	**2,389**	**100**	**10,385**	**100**	**2,604**	**100**	**6,926**	**100**	**2,373**	**100**	**977**	**100**
	2014	**12,369**	**100**	**2,304**	**100**	**13,648**	**100**	**3,464**	**100**	**7,561**	**100**	**2,607**	**100**	**1,031**	**100**
	Change	**-164**	**-1.3**	**-85**	**-3.6**	**3,263**	**31.4**	**860**	**33.0**	**635**	**9.2**	**234**	**9.9**	**54**	**5.5**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.13 shows the occupancy and vacancy of housing units in the region. From 2000 to 2014, the City of Holland was the only community to see a decrease in occupied residential units and has the greatest number of non-seasonal vacant units in 2014. The City has also seen an increase in seasonal units from 2000 to 2014. Regionally, most of the communities in the region have seen an overall increase in total housing units, moderate increases in non-seasonal vacant housing units, and strong growth in occupied units.

Table A.14 Gross Rent, Part 1

	City of Holland						City of Zeeland						Holland Township					
	2000		2014		Change		2000		2014		Change		2000		2014		Change	
Rent Price ($)	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Less than 300	357	9	126	3	-231	-64.7	46	8	13	2	-33	-71.7	88	3	10	0	-78	-88.6
300 to 599	1,954	50	725	18	-1,229	-62.9	226	41	312	38	86	38.1	1,208	43	382	10	-826	-68.4
600 to 799	1,004	26	1,270	31	266	26.5	125	23	200	24	75	60.0	1,021	36	1,838	47	817	80.0
800 to 999	314	8	969	23	655	208.6	30	5	152	18	122	406.7	282	10	876	22	594	210.6
1,000 to 1,999	133	3	723	17	590	443.6	72	13	126	15	54	75.0	127	5	553	14	426	335.4
2,000 or more	6	0.2	222	5.4	216	3600.0	37	6.8	21	2.5	-16	-43.2	0	0.0	18	0.5	18	-
No cash rent	169	4.3	101	2.4	-68	-40.2	11	2.0	0	0.0	-11	-100.0	76	2.7	217	5.6	141	185.5
Total	**3,937**	**100**	**4,136**	**100**	**199**	**5**	**547**	**100**	**824**	**100**	**277**	**51**	**2,802**	**100**	**3,894**	**100**	**1,092**	**39**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.14 Gross Rent, Part 2

	Zeeland Township						Park Township						Laketown Township						Fillmore Township					
	2000		2014		Change		2000		2014		Change		2000		2014		Change		2000		2014		Change	
Rent Price ($)	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Less than 300	10	9	13	7	3	30.0	11	2	8	1	-3	-27.3	0	0	0	0	0	-	11	2	15	14	4	36.4
300 to 599	44	39	63	34	19	43.2	225	37	32	4	-193	-85.8	150	58	54	16	-96	-64.0	225	37	42	38	-183	-81.3
600 to 799	22	20	60	32	38	172.7	164	27	169	23	5	3.0	80	31	98	29	18	22.5	164	27	28	25	-136	-82.9
800 to 999	7	6	25	14	18	257.1	102	17	265	35	163	159.8	7	3	96	28	89	1271.4	102	17	5	5	-97	-95.1
1,000 to 1,999	19	17	0	0	-19	-100.0	41	7	177	24	136	331.7	9	4	62	18	53	588.9	41	7	21	19	-20	-48.8
2,000 or more	0	0.0	0	0.0	0	-	0	0.0	38	5.1	38	-	0	0.0	0	0.0	0	-	0	0.0	0	0.0	0	-
No cash rent	10	8.9	24	13.0	14	140.0	62	10.2	59	7.9	-3	-4.8	11	4.3	27	8.0	16	145.5	62	10.2	0	0.0	-62	-100.0
Total	**112**	**100**	**185**	**100**	**73**	**65**	**605**	**100**	**748**	**100**	**143**	**24**	**257**	**100**	**337**	**100**	**80**	**31**	**605**	**100**	**111**	**100**	**-494**	**-82**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.14 Part 1 and Part 2 shows rental units in each community by the cost of monthly gross rent. For readability, Table A.14 shows seven rent price ranges in the table rows, and the number and percentage of total rental units in the columns for 2000, 2014, and the change between 2000 and 2014. This table shows that, in general, the number of rental units in the lowest rent price ranges have fallen, while there tend to be more rental units with higher monthly gross rent prices in the region. This table also shows that the City of Holland has more rental units than the other communities in the region, second to only Holland Township in number. The City has seen an additional 216 rental units with monthly rent over 2,000 dollars or more, a much greater increase than any other community.

Table A.15 Owner-Occupied Housing Values, Part 1

	City of Holland						City of Zeeland						Holland Township					
	2000		2014		Change		2000		2014		Change		2000		2014		Change	
Unit Value ($)	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Less than 50,000	387	5	499	7	112	28.9	576	24	105	7	-471	-81.8	810	12	1,313	15	503	62.1
50,000 to 100,000	3,327	41	2,131	29	-1,196	-35.9	286	12	390	26	104	36.4	1,182	17	977	11	-205	-17.3
100,000 to 149,999	2,647	33	2,692	37	45	1.7	680	29	533	36	-147	-21.6	3,255	47	3,420	38	165	5.1
150,000 to 174,999	706	8.8	712	9.7	6	0.8	218	9.2	238	16.1	20	9.2	798	11.5	1,530	16.9	732	91.7
175,000 to 199,999	386	4.8	247	3.4	-139	-36.0	217	9.1	21	1.4	-196	-90.3	318	4.6	529	5.8	211	66.4
200,000 to 249,999	298	3.7	503	6.9	205	68.8	250	10.5	123	8.3	-127	-50.8	339	4.9	702	7.8	363	107.1
250,000 to 399,999	161	2	300	4	139	86.3	127	5	70	5	-57	-44.9	169	2	412	5	243	143.8
400,000 to 499,999	47	0.6	92	1.3	45	95.7	7	0.3	0	0.0	-7	-100.0	28	0.4	59	0.7	31	110.7
500,000 to 749,999	18	0.2	63	0.9	45	250.0	17	0.7	0	0.0	-17	-100.0	9	0.1	59	0.7	50	555.6
750,000 to 999,999	18	0.2	30	0.4	12	66.7	0	0.0	0	0.0	0	-	23	0.3	11	0.1	-12	-52.2
1,000,000 or more	55	0.7	47	0.6	-8	-14.5	0	0.0	0	0.0	0	-	6	0.1	34	0.4	28	466.7
Total:	**8,050**	**100**	**7,316**	**100**	**-734**	**-9.1**	**2,378**	**100**	**1,480**	**100**	**-898**	**-37.8**	**6,937**	**100**	**9,046**	**100**	**2,109**	**30.4**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.15 Owner-Occupied Housing Values, Part 2

	Zeeland Township						Park Township						Laketown Township						Fillmore Township					
	2000		2014		Change		2000		2014		Change		2000		2014		Change		2000		2014		Change	
Unit Value ($)	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Less than 50,000	576	24	602	19	26	4.5	293	5	321	6	28	9.6	48	3	55	3	7	14.6	100	12	76	10	-24	-24.0
50,000 to 100,000	286	12	99	3	-187	-65.4	618	11	303	5	-315	-51.0	156	9	130	7	-26	-16.7	167	20	105	14	-62	-37.1
100,000 to 149,999	680	29	640	20	-40	-5.9	1,628	30	1,101	19	-527	-32.4	593	34	352	18	-241	-40.6	246	30	193	25	-53	-21.5
150,000 to 174,999	218	9.2	574	17.9	356	163.3	666	12.1	596	10.4	-70	-10.5	239	13.6	241	12.3	2	0.8	92	11.1	73	9.6	-19	-20.7
175,000 to 199,999	217	9.1	259	8.1	42	19.4	521	9.5	414	7.2	-107	-20.5	129	7.3	176	9.0	47	36.4	84	10.2	43	5.6	-41	-48.8
200,000 to 249,999	250	10.5	402	12.5	152	60.8	629	11.4	964	16.8	335	53.3	228	13.0	268	13.7	40	17.5	65	7.9	89	11.6	24	36.9
250,000 to 399,999	127	5	615	19	488	384.3	706	13	1,366	24	660	93.5												
400,000 to 499,999	7	0.3	17	0.5	10	142.9	141	2.6	270	4.7	129	91.5	83	4.7	49	2.5	-34	-41.0	6	0.7	38	5.0	32	533.3
500,000 to 749,999	17	0.7	0	0.0	-17	-100.0	140	2.5	211	3.7	71	50.7	26	1.5	261	13.3	235	903.8	0	0.0	15	2.0	15	-
750,000 to 999,999	0	0.0	0	0.0	0	-	99	1.8	69	1.2	-30	-30.3	20	1.1	28	1.4	8	40.0	0	0.0	0	0.0	0	-
1,000,000 or more	0	0.0	0	0.0	0	-	64	1.2	123	2.1	59	92.2	8	0.5	19	1.0	11	137.5	0	0.0	0	0.0	0	-
Total:	**2,378**	**100**	**3,208**	**100**	**830**	**34.9**	**5,505**	**100**	**5,738**	**100**	**233**	**4.2**	**1,760**	**100**	**1,958**	**100**	**198**	**11.3**	**826**	**100**	**764**	**100**	**-62**	**-7.5**

Source: U.S. Census Bureau (2000), American Community Survey (2010-2014)

Table A.15 Part 1 and Part 2 shows the value of owner-occupied units in the region. There are 11 value ranges shown as rows on the Table, while the columns show the number and percentage of total owner-occupied units for 2000, 2014, and the change between 2000 and 2014. In general, there are more homes in higher value ranges in 2014 than in 2000, though it is unknown if this growth is due to existing homes growing in value or new homes constructed from 2000 to 2014.

Resilient Holland Community Design Charrette Report

JUNE 2016

Holland
MICHIGAN

ACKNOWLEDGMENTS

This Plan was prepared by the Land Information Access Association (LIAA) as part of the Resilient Holland project. Support for the project came from the Michigan Municipal League (MML), Michigan Association of Planning (MAP), and the University of Michigan's Taubman College of Architecture and Urban Planning. A special thank you is owed to the many organizations and individuals that contributed to the planning process.

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Nicole Harris

Alexandra Van De Wege

Staff

CITY OF HOLLAND

Ryan Cotton, City Manager

Joel Dye, Director of Community and Neighborhood Services

Mark Vanderploeg, Senior City Planner

Nancy Gillis, Office of Community and Neighborhood Services

HOLLAND CHARTER TOWNSHIP

Meghann Reynolds, Planner and Zoning Administrator

Corey Broersma, Assistant Planner and Zoning Administrator


Yes!
AUTO SALES
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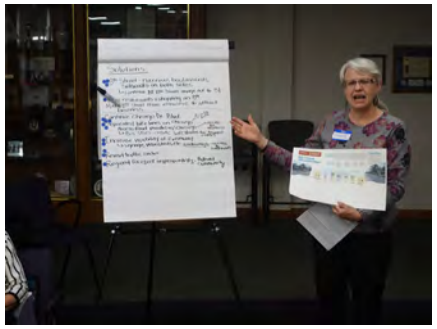
Introduction

The Resilient Holland project was a land-use planning and community development effort focused on fostering economic and climate resilience in the City of Holland. The project was conducted by the Land Information Access Association (LIAA), a non-profit planning organization in Traverse City. The Resilient Holland project gathered diverse stakeholders to identify climate vulnerabilities and recommend actions for the development of a new Master Plan for the City. The consultant team, LIAA, has conducted resiliency planning processes in a number of coastal communities throughout Michigan.

As a part of the Resilient Holland project, an interactive design workshop, or charrette, was held to help inform the development of the City's Master Plan and investigate design options and strategies in the two study areas described below. A charrette is a multi-day collaborative planning event that engages community members, planners, and designers to create a feasible plan for the community. The Resilient Holland Community Design Charrette consisted of two concurrently running processes. The first was a series of stakeholder meetings intended to identify issues within the community, assess vulnerabilities, and develop goals for the Master Plan. The second aimed to establish a vision for the land uses, development patterns, roadways, and public spaces within the two study areas. This charrette summary report focuses on the process, design ideas, and outcomes of the second portion of the charrette.

The South Washington Avenue Corridor and the Chicago Drive/8th Street area were chosen as the study areas for this design charrette based on conversations with City of Holland and Holland Charter Township officials based on existing issues and the corridors' potential for meaningful change. The four-day charrette was held from June 1st-4th, 2015 at Holland City Hall. Planners and landscape architects from the Land Information Access Association coordinated the charrette, with additional assistance from the Veritas Design Group of Grand Rapids and Kalamazoo, Phil Meyer, Bill Johnson, City of Holland staff, and Holland Charter Township staff.



The charrette was a multi-day, interactive workshop that gathered input from a variety of stakeholders.

(At left) Participants assessing the existing conditions of a corridor within one of the study areas.

Study Areas

SOUTH WASHINGTON AVENUE CORRIDOR

The South Washington Avenue Corridor study area includes Washington Avenue and adjacent properties between 32nd Street and US-31. The map on this page shows the location of this study area. A variety of land uses can be found within the study area. Washington Avenue is primarily lined by restaurants, offices, retail stores, automobile service stations, and financial institutions. Development along the corridor consists mostly of individual buildings with parking lots located in front of or alongside the structures. Small commercial strip developments can be found in a few locations along Washington Avenue.

Washington Avenue is a major north-south street in the City of Holland that carries around 17,000 vehicles per day. In this area, Washington Avenue has five lanes for vehicular traffic, two travel lanes in each direction and one center left-turn lane. Sidewalks are continuously present along both sides of the corridor with a substantial landscape strip located between the curb and sidewalk. These landscape strips are planted in turf grass and street trees of varying size and type are intermittently present. Many properties along the corridor also have a significant landscape buffer between the sidewalk and the parking lot or building. Signalized crosswalks are located at the intersections of 32nd Street, 40th Street, and Matt Urban Drive.

Washington Avenue consists of five vehicular travel lanes within the study area.

An example of commercial development along Washington Avenue.

Aerial photograph of the The Washington Avenue Corridor Study Area with the study area outlined in red.

CHICAGO DRIVE/8TH STREET AREA

The Chicago Drive/8th Street study area includes the Chicago Drive and 8th Street corridors between Lincoln Avenue on the west and Waverly Road on the east. The study area also includes the properties adjacent to these corridors, land between Chicago Drive and the Macatawa River, and all of the properties between Chicago Avenue and 8th Street. The map on the following page shows the location of this study area. A majority of this study area is within Holland Charter Township, although the far east and west ends are within the City of Holland.

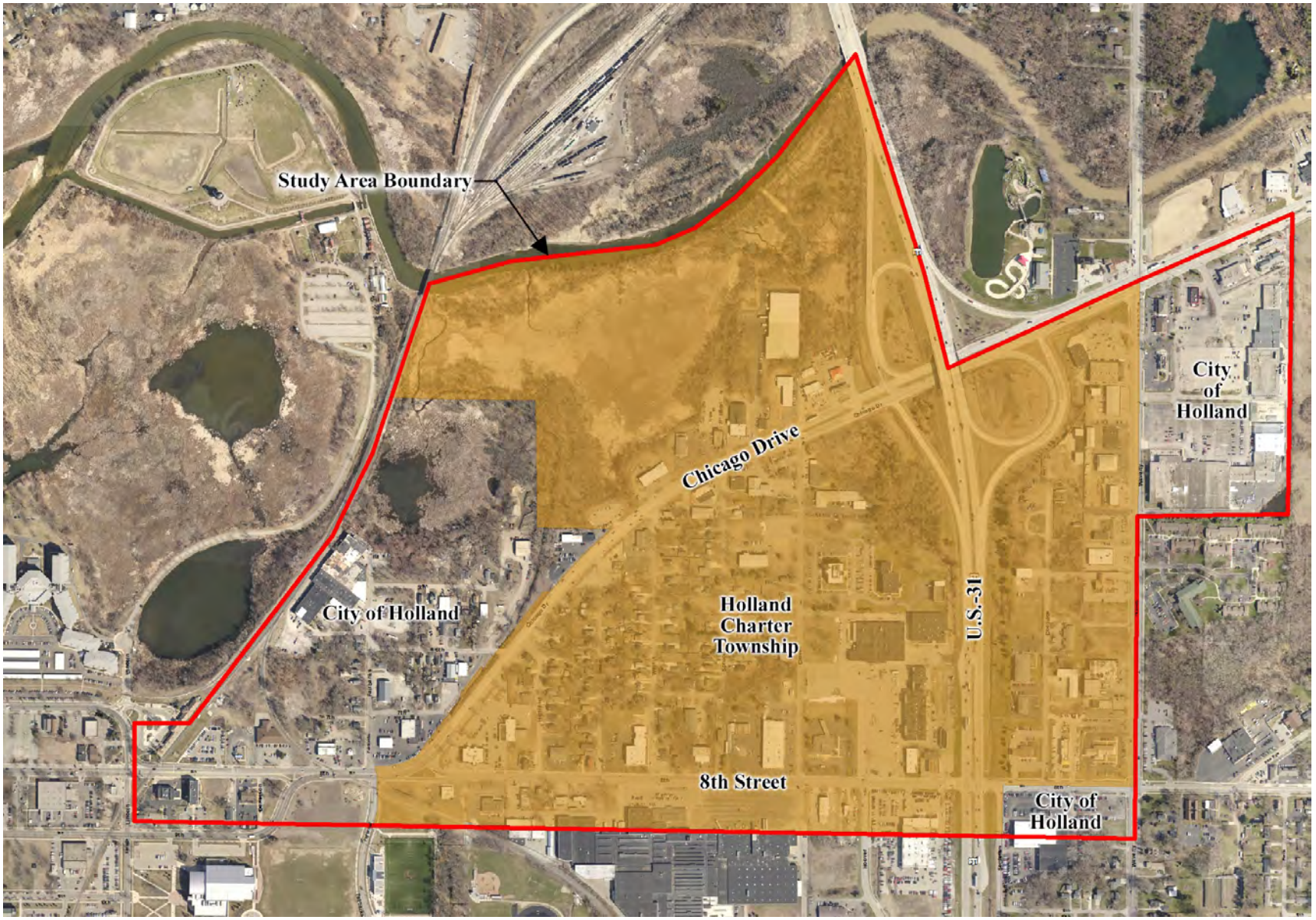
Chicago Drive acts as a main entry into the area and downtown Holland for travelers coming from the east and is primarily lined by various commercial uses in free-standing buildings with parking lots in front of, or alongside the structures. In much of this area, Chicago drive consists of five vehicular traffic lanes, two in each direction and one center left-turn lane. Sidewalk infrastructure does not exist along the street and street trees are nearly nonexistent. The eastern portions of Chicago Drive within the study area have a median within the center lane, which is broken in places to provide for a left turn lane at intersections and driveway locations.

Much of Chicago Drive in the study area consists of five vehicular travel lanes.

8th Street is a major east-west street in the area, connecting downtown Holland to residential and commercial areas on the east side of the City. Within the study area, 8th Street consists of four vehicular lanes, two for east-bound travel and two for west-bound travel. 8th street is lined by a wide variety of commercial, service, and industrial uses. Commercial strip development, large car dealerships, and drive-through banks and restaurants can be found along 8th Street. A continuous sidewalk is located along the north side of 8th Street while sidewalk infrastructure is intermittent on the south side of the street. Commercial buildings along 8th Street vary in size, design, and placement, but generally buildings are set back from the roadway with parking lots located between road and structure.

The City of Holland's Board of Public Works is currently building a new natural gas power plant off of Chicago Drive in the west end of the study area. Lands behind the new power plant and businesses on the north side of Chicago Drive are preserved as natural areas and are generally wet and close to the Macatawa River. A small residential neighborhood, known as the Federal School Neighborhood, is located in Holland Township in the triangle formed by 8th Street, Chicago Drive, and US-31. The neighborhood is comprised of primarily single-family, detached homes.

8th Street in the study area consists of four vehicular travel lanes.



The Chicago Drive/8th Street Study Area with areas of Holland Charter Township shaded orange.

Charrette Preparation

Prior to the charrette, the project team gathered information and data about the study areas to help inform charrette activities and the planning process. This information included parcel data, road widths, location of existing sidewalk infrastructure, parking locations, existing development character, existing zoning regulations, current land uses, daily traffic counts, and past and current plans for the study areas. The project team also conducted a walking audit of the study area to identify potential areas of concern and existing visual character.

The charrette studio, or working space, was set up in Holland City Hall. To promote stakeholder and public participation in the charrette process, the project team issued press releases to local media outlets, sent personal invitations to key stakeholders, and publicized the event through email newsletters. City staff provided the project team with relevant stakeholders to contact via email.

CHARRETTE PROCESS AND ACTIVITIES

The following provides an overview of each charrette activity. The findings from each activity were used to guide the creation of design alternatives and planning solutions found later in this report.

DAY ONE

The charrette began with a walking tour and audit of each study area. These walking tours were open to the public and led by LIAA staff. Following the walking tours, a public charrette kickoff meeting was held at Holland City Hall.

Walking Tours and Audits

The walking tours and audits allowed citizens, stakeholders, and project team members an opportunity to experience the two study areas from a pedestrian perspective and identify positive and negative aspects of each corridor. Participants scored the pedestrian experience along each corridor using ranking worksheets that asked them to assess the safety, convenience, comfort, efficiency, and wayfinding signage for specific blocks. The ranking worksheets asked that the following items be considered when scoring the corridor. Participants also scored the relationship between the street and built environment by assessing the aesthetics, signage, and entrances of properties along the corridors. The information gathered during the walking tours and audits helped the project team identify existing issues within, and key strengths of, the study areas.

Charrette participants and project team members conducting a walking audit on the first day of the charrette.

Kickoff Meeting

During the kickoff meeting, the project team gave a presentation providing information about the Resilient Holland project, an overview of the charrette process, and a summary of existing conditions in the study area. Next, the project team facilitated a series of brainstorming activities with participants. Working in small groups, participants were asked to identify, map, and illustrate:

- Five positive places in or aspects of the study areas.
- Five negative places in or aspects of the study areas.
- Three improvements for the study areas.
- Four ideas of what the study areas should look like in 20 years.
- Visions for the future design of the corridors within the study areas.

Charrette participants brainstorm ideas for the study areas during the kickoff meeting.

Following the brainstorming exercises, participants prioritized the ideas generated by voting for those that they felt were most important. Then, a representative from each small group summarized the results of their activities to the entire group.

The results from the kickoff meeting were summarized and reviewed by the project team. This information, along with the walking tour audit results, formed the basis of the preliminary design concepts drafted on Day Two.

DAY TWO

On the second day of the charrette, the project team began creating preliminary design concepts and alternatives for the study areas. The project team also held meetings with stakeholder groups to gather additional input on the study areas and allow stakeholders to provide feedback on the preliminary design ideas. Over the course of the day, the charrette team met with stakeholder groups consisting of area residents, area business owners, and local officials and staff members. The input received during the second day of the charrette reiterated many of the ideas generated during the first day's meetings. Development of preliminary design concepts and ideas continued throughout the day in preparation for the activities of day three.

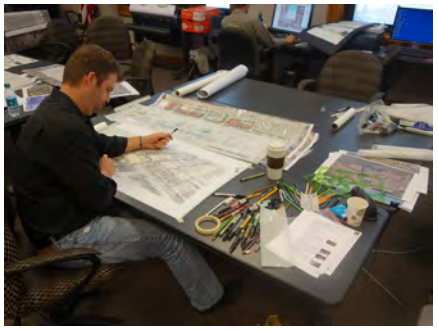
Stakeholder meetings throughout the charrette process allowed for multiple rounds of feedback on potential recommendations for the study areas.

DAY THREE

During the third day of the charrette, additional stakeholder meetings were held to gather additional feedback on the design ideas being generated. The charrette team incorporated suggestions from these meetings into the ongoing conceptual designs and began work on new ideas provided during the day. During the evening, a public open house was held on the first floor of City Hall. The open house provided an informal setting for stakeholders and members of the public to review the preliminary design concepts created by the project team and provide comments and feedback.

DAY FOUR

On the final day of the charrette, the project team worked to finalize its recommendations and design ideas for the study area based on input from the previous day's stakeholder meetings and open house. At the end of the day, a final presentation outlining the team's recommendations and design ideas was given.



The charrette team developed and refined ideas and design concepts throughout the four-day event.

Charrette Findings and Recommendations

The results and recommendations of the four-day Resilient Holland Community Design Charrette are provided on the following pages. It is important to remember that many of the concepts and ideas are just that – concepts and ideas. While these concepts have been vetted by the project team through preliminary analysis and stakeholder verification, additional study, analysis, and design will be required. Implementation of these recommendations will require cooperation with property owners and local, regional, and state agencies.

A large portion of the stakeholder and community discussions during the charrette involved, in one way or another, enhancing the corridors and creating a unique identity, or sense of place, within each study area. Creating special identities for the corridors that serve as "gateways" into the Holland community was seen as an important goal by charrette participants who also noted that pedestrian infrastructure and connectivity could be improved in each study area. During the course of the four-day charrette, it became clear that the desired improvements for each study area could be grouped into a series of primary themes for each area. The following summarizes the primary themes and recommendations for the study areas.

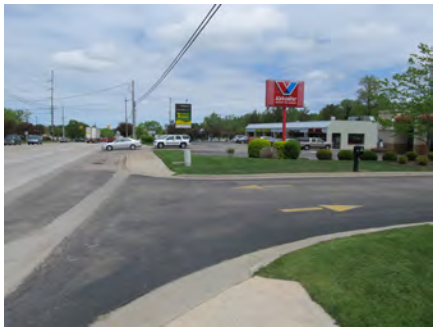
SOUTH WASHINGTON AVENUE CORRIDOR

PRIMARY THEMES

Over the course of the four-day charrette, five primary themes from the input received were identified and became the main focus of the recommendations and design concepts developed for the area. Those themes were:

Create an Identity

Charrette participants noted the lack of a unique identity along Washington Avenue and mentioned that it looks very similar to commercial corridors found in communities across the country. Throughout the charrette process, a desire to create a unique character for the corridor became apparent. Improving the appearance of the corridor could help make it feel more like Holland and less like "any place, U.S.A." Additionally, corridor improvements would help enhance the arrival experience into the City of Holland for travelers exiting off of US-31 at Washington Avenue.



Charrette participants noted that the Washington Avenue corridor lacks a unique identity.

Link the Surrounding Neighborhoods

During the charrette process, input was received that identified a number of connectivity issues between the Washington Avenue corridor and surrounding neighborhoods. Participants expressed a desire for better non-motorized transportation connections between the sidewalks and businesses along Washington Avenue and the nearby residential areas.

Establish Continuity in Character

Charrette participants noted that development along the corridor seemed disjointed and felt that visual character could be improved in future development and redevelopment. It was felt that a more uniform pattern of building and site design along the corridor would improve the corridor's character and the experiences of those walking, bicycling, and driving along it.

Plan for Pedestrians

Despite the presence of sidewalks along both sides of Washington Avenue, charrette participants felt that encouraging and providing for better pedestrian connectivity within the study area would increase business visits and create a safer, more pedestrian-friendly atmosphere.

Support and Enhance Commercial Activity

Much of the input from the charrette process dealt with ways to improve the aesthetics and character of the Washington Avenue corridor. As conceptual designs and recommendations were created to reflect this input, it was noted that the physical improvements would also help improve commercial activity in the area. The implementation of new, more dense, mixed-use development patterns would create a vibrant hub of activity on the south side of the City that would serve nearby residents and draw visitors from other areas of the City and surrounding communities.

Input received during the charrette identified a need to improve pedestrian connectivity and safety along the Washington Avenue corridor.

RECOMMENDATIONS

The project team developed a series of recommendations for the South Washington Avenue corridor related to the five primary themes identified during the charrette process. Many of the recommendations relate to more than one, and sometimes all, of the themes. The recommendations for the South Washington Avenue corridor area are found on the following pages.

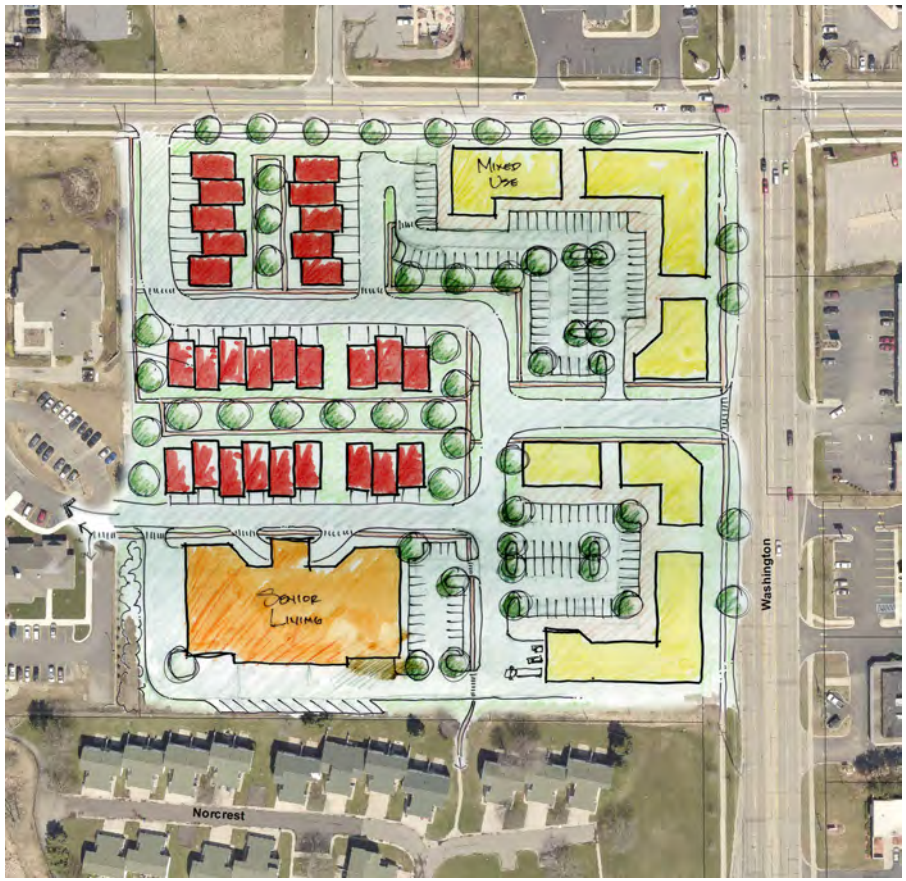
Redevelopment at the Washington Avenue/40th Street intersection

The charrette team recommends that the City promote and accommodate a shift in development patterns in the area surrounding the Washington Avenue/40th Street intersection in order to create a mixed-use, walkable hub of activity that changes the physical character of the corridor. This type of redevelopment should include buildings that are

situated close to the street and sidewalks, parking areas behind structures, and the incorporation of multiple story buildings that can accommodate a mix of uses.

Charrette participants noted that the large property on the southwest corner of Washington and 40th presents a unique redevelopment opportunity within the City. The site currently consists of aging strip commercial buildings, a vacant drive-through bank, and large asphalt parking lots. The charrette team created a conceptual drawing that shows how the site could be redeveloped with mixed-use buildings fronting on Washington Avenue and 40th Street, a senior living facility, and townhouses. The residential components of the conceptual plan would provide a transition between the mixed-use buildings and existing residential development to the south and east of the parcel.

Existing conditions at the southwest corner of Washington Ave. and 40th St.



Potential mixed-use development at the southwest corner of Washington Ave. and 40th St.

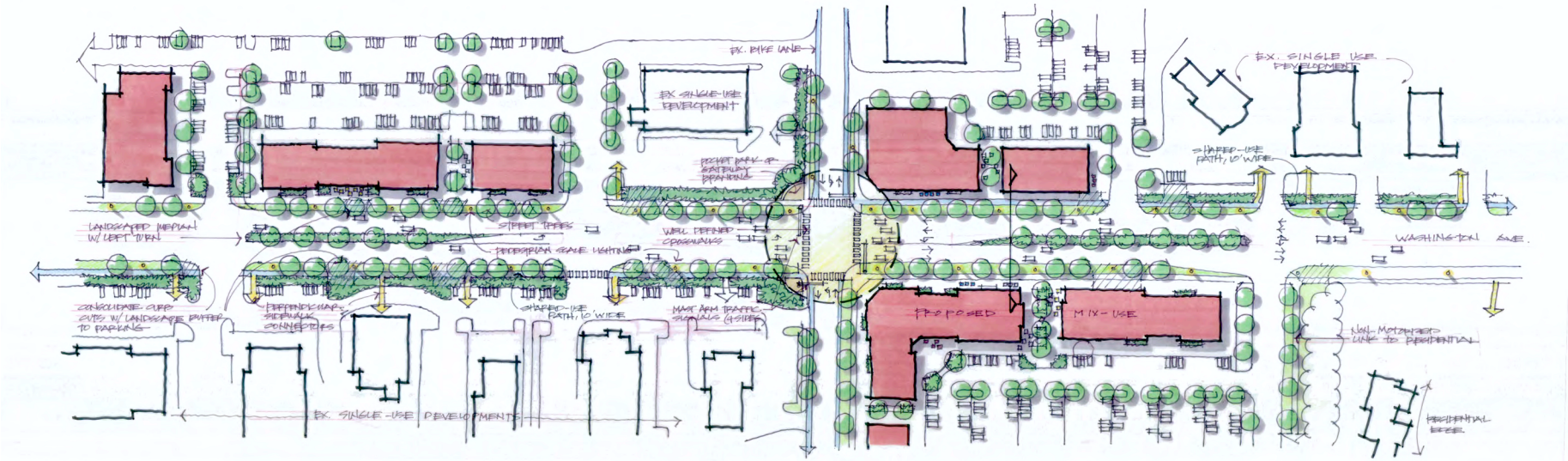
Drawings showing the potential character of mixed-use development and buildings along the corridor can be seen below and on the following page.

Potential character of mixed-use development along the Washington Avenue corridor.

Conceptual elevation drawing showing potential mixed-use building character.

Extending Mixed-Use Character Along the Corridor

The charrette team also recommends extending this mixed-use development pattern north along Washington Avenue to create a more aesthetically pleasing and pedestrian friendly character. It recommends that development patterns to the south of the area surrounding the Washington/40th intersection remain relatively unchanged to provide the types of businesses and services that are appropriate for a commercial corridor directly off of a major highway exit. A conceptual plan showing the extension of the mixed-use development pattern north along Washington Avenue can be seen on the following page. Allowing for the transformation of the character of the corridor from 40th Street north towards the center of the City would create a more pleasing entry experience for travelers entering Holland from the south and provide a more natural transition from the suburban highway commercial development near US-31 to the traditional urban areas of Holland.

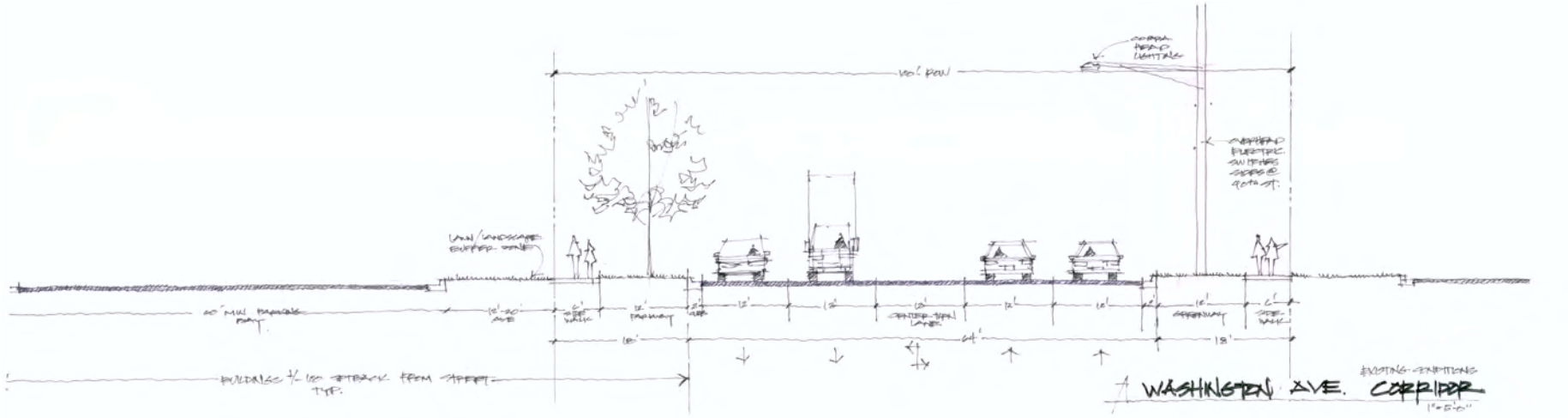


Conceptual plan drawing showing the potential extension of mixed-use development north along Washington Ave. and potential streetscape improvements (discussed below)

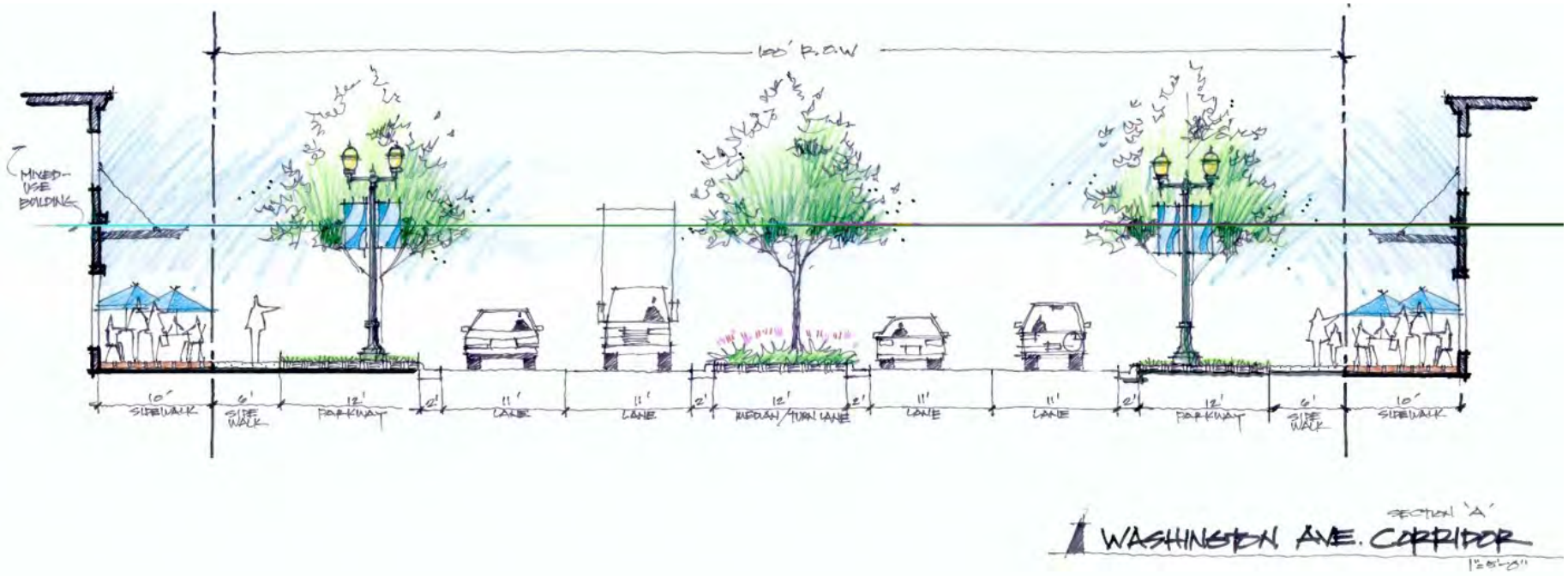
Create a More Pedestrian Friendly Corridor

The charrette team also recommends the installation of consistent streetscape elements and improvements along Washington Avenue to create a unique identity for the corridor, improve the corridor's visual character, and provide a friendlier pedestrian experience. Existing and conceptual cross section drawings showing potential streetscape improvements can be found on the following page. The addition of attractive, thematic light poles, consistent street trees, and wider sidewalks would add visual appeal to the corridor and provide an environment that is comfortable for pedestrians and encourage activity along the corridor. It is also recommended that the City consider including a median in the center lane along Washington Avenue to help break up the wide expanse of paved surface, slow traffic, and provide safer opportunities for mid-block pedestrian crossing.

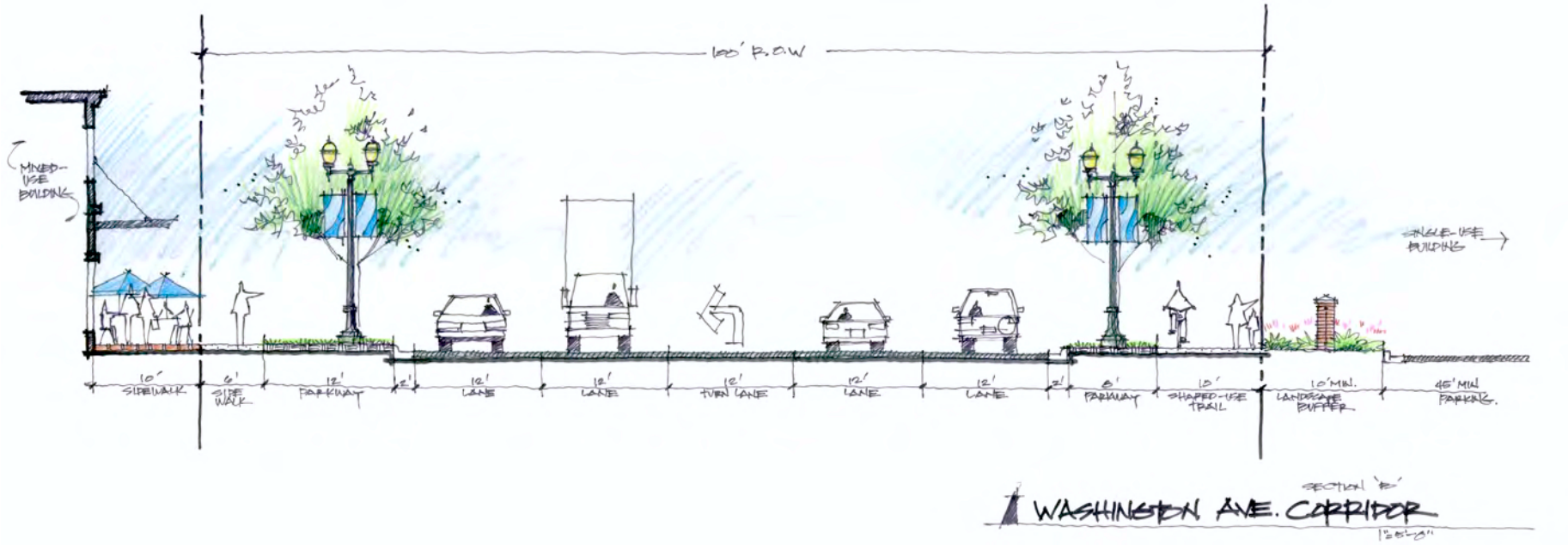
In the event that a median along the length of Washington Avenue is deemed impractical, it is recommended that pedestrian refuge islands be created at midblock crossing points in order to accommodate safer pedestrian crossings in places between the signalized crosswalks at major intersections. Potential locations for pedestrian refuge islands are shown on the following pages.



Existing cross section drawing of Washington Avenue, showing the typical five vehicular travel lanes, sidewalks, and large setbacks along the corridor.



Conceptual cross section drawing of Washington Avenue showing potential mixed-use buildings along the corridor, wide sidewalks, improved streetscape amenities, and a planted median in the center lane.



Alternative cross section drawing of Washington Avenue showing potential mixed-use buildings on one side of the roadway with a widened sidewalk and streetscape improvements. The drawing also shows a shared-use path on the other side of the road with a landscape buffer between the path and a parking lot for a single-use building.

Conceptual drawings illustrating potential pedestrian refuge islands on Washington Avenue near the intersections of 35th Street (left) and Meadowlane Drive (right).

CHICAGO DRIVE/8TH STREET AREA

PRIMARY THEMES

Five primary themes from the input received on the Chicago Drive/8th Street area were also identified during the course of the charrette. These themes became the main focus of the recommendations and design concepts developed for the area. The five themes were:

Create an Identity – Community Gateway

Throughout the course of the charrette, participants noted that Chicago Drive is a major "gateway" into the Holland community that lacks a unique identity and aesthetically pleasing amenities. Desires to provide a more attractive arrival experience were frequently expressed. Additionally, charrette participants indicated that similar aesthetic improvements, as well as non-motorized transportation improvements along 8th Street were desired to better connect the east side of the City, as well as portions of Holland Charter Township to downtown Holland.

Link and Support the Neighborhood

Input from the four-day charrette identified a strong desire to preserve and enhance the existing Federal School Neighborhood within the study area and provide better pedestrian connections between it, the surrounding commercial areas, and other portions of the community.

Link to Natural Systems

The natural areas of the Macatawa Greenway, located north of Chicago Drive in the study area, were seen as an under-utilized resource by many charrette participants. A strong desire to provide visual and physical connections to this resource was frequently mentioned during the charrette.

Add and Connect Pedestrian Linkages

A general lack of suitable pedestrian infrastructure and connections within the study area was a major topic of discussion during charrette activities. Participants noted that traveling within or through the area was only comfortable by car and walking within the area often felt unsafe. Input received during the charrette process often focused on improving non-motorized transportation connectivity within and through the Chicago Drive/8th Street area.

The lack of suitable pedestrian infrastructure within the study area was a major topic of discussion during the charrette.

Connect the City and Township

The Chicago Drive/8th Street area is unique as it falls within the boundaries of both the City of Holland and Holland Charter Township. Both corridors run from the City on the west, through the Township, and then back into the City on the eastern side of the study area. Due to the fact that people aren't generally aware of jurisdictional boundary lines, charrette participants felt that the study area should be treated, and improved, as a whole, rather than two separate entities. This study area was seen as a part of the "Holland community" and it was felt that recommendations generated for the area should ignore the jurisdictional boundary lines.

RECOMMENDATIONS

The project team developed recommendations for the Chicago Drive/8th Street area based on the five primary themes identified during the charrette process. Many of the recommendations relate to more than one, and sometimes all, of the themes. The recommendations for the Chicago Drive/8th Street area are found on the following pages.

Land Use within the Study Area

The charrette team developed a number of general land use recommendations for the study area based on input received during the charrette and investigation of existing conditions. Generally, it is recommended that the current configuration of residential and commercial land uses within the study area remain unchanged. However, opportunities for infill development along the 8th Street and Chicago Drive corridors were identified by the charrette team and can

be seen on the potential improvements plan on page 18. It is recommended that potential infill development along 8th Street place mixed-use buildings adjacent to the street and provide space for retail and service uses on ground floors with residential uses on upper floors. Altering the development patterns along 8th Street, in conjunction with additional recommendations found on the following pages, would help improve the aesthetic character of the corridor and create a more comfortable pedestrian experience.

Additionally, it is recommended that the land on the north side of Chicago Drive between the Highland Avenue and Walnut Street intersections be evaluated for development suitability and be considered for either potential higher-density residential development near the existing natural areas in the study area or potential expansion of park and open space improvements.

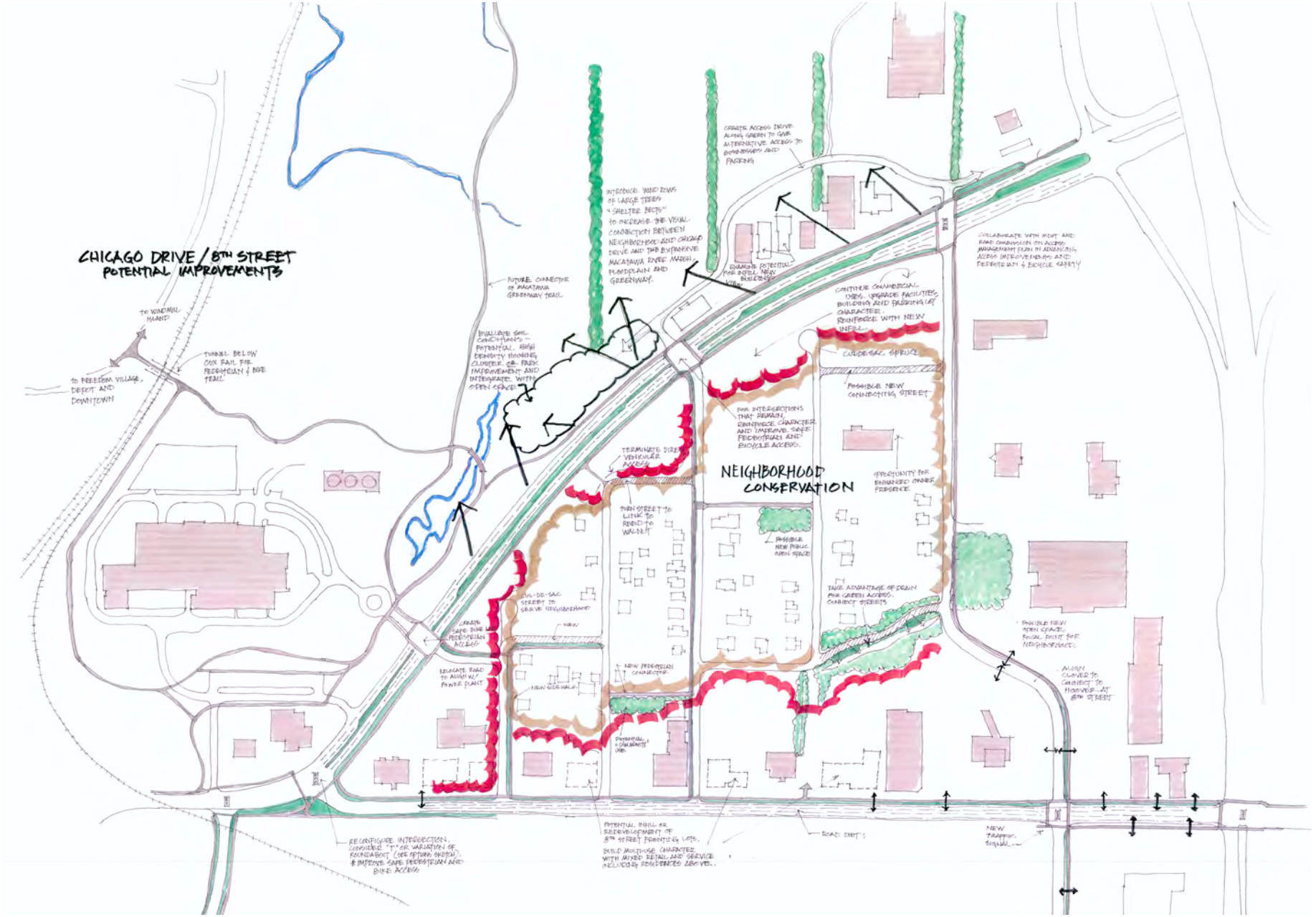
Improvements to the Chicago Drive Corridor

A number of recommendations for the Chicago Drive corridor were made by the charrette team in order to improve its visual character and enhance the entry experience for motorists entering the community from the east and north. First, it is recommended that a median be added to Chicago Drive between the 8th Street and Clover Street intersections in order to improve the corridor's appearance and better control traffic patterns along this portion of the roadway.

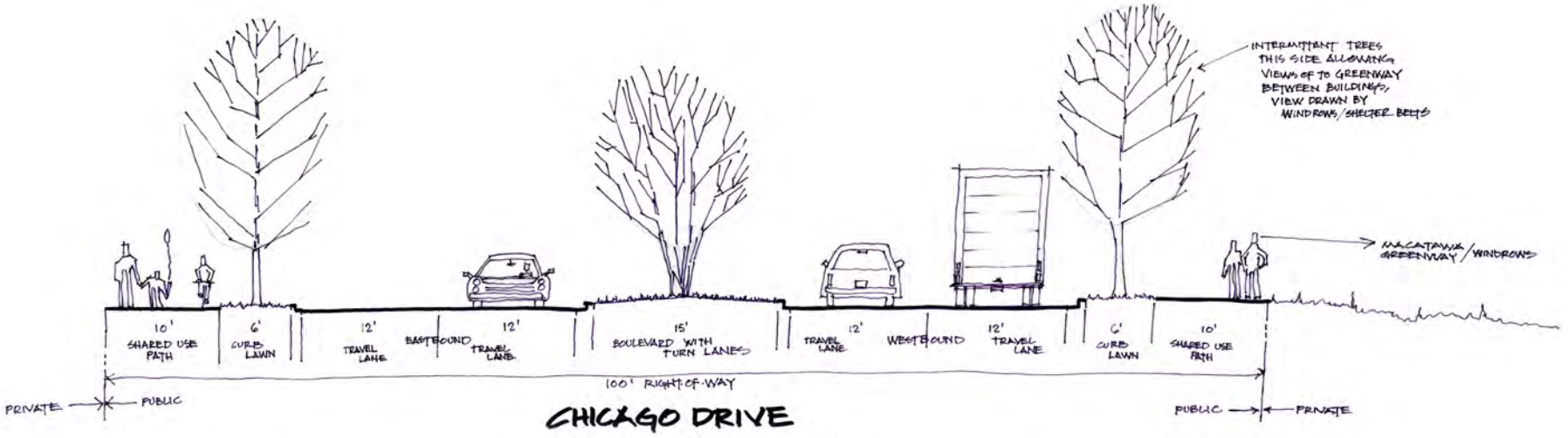
It is also recommended that the number of intersections be reduced (see additional recommendations on the following pages for further detail), shared-use paths be provided, and safe pedestrian crossings be created along this stretch of Chicago Drive. A conceptual cross section drawing of Chicago Drive, showing a potential median and shared-use paths can be seen on page 19.

The construction of the new Holland Energy Park (shown above) will help alter the character of the corridor and provide pedestrian connections to the Macatawa Greenway natural areas to the north of the Energy Park.

Recommended changes to the intersections along this stretch of the corridor, including removal of intersections and pedestrian crossing improvements, can be seen on the potential improvements plan on page 18. On this plan, the Highland Avenue, Reed Avenue, and Spruce Avenue intersections are eliminated while enhanced pedestrian crossing points are included at the Walnut Street intersection and at a new intersection at the entry drive to the newly constructed Holland Energy Park entrance. Additionally, a new traffic light and signalized crosswalks are shown at the Clover Street/Chicago Drive intersection. The plan also calls for the consideration of a new access drive to be located behind the businesses on the north side of Chicago Drive in order to provide alternative access to businesses and parking lots and reduce the need for multiple breaks in the proposed median to accommodate left turn movements into and out of driveways. The before and after images shown on page 19 illustrate how the inclusion of a median and intersection improvements on Chicago Drive might look.



The potential improvements plan for the Chicago Drive/8th Street study area shows a variety of land use and circulation recommendations. Enlarged portions of this drawing will be utilized in the following pages to illustrate specific recommendations.

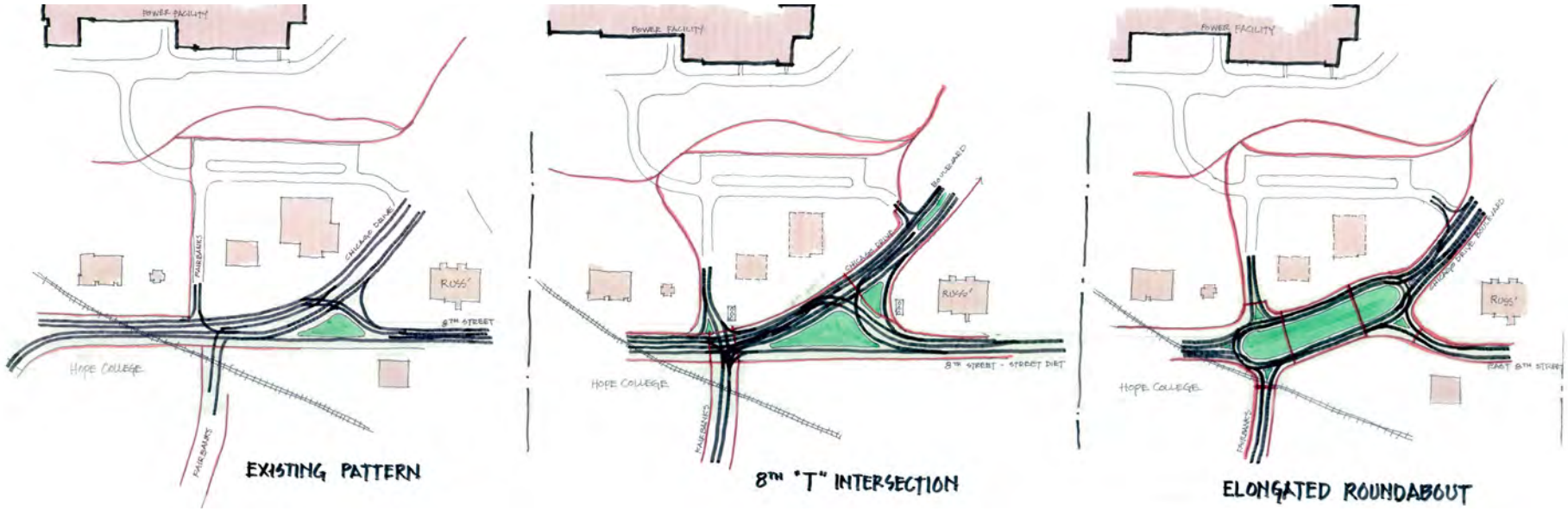


Cross section drawing of Chicago Drive showing a potential planted median and shared-use paths on each side of the road.

Before.

After.

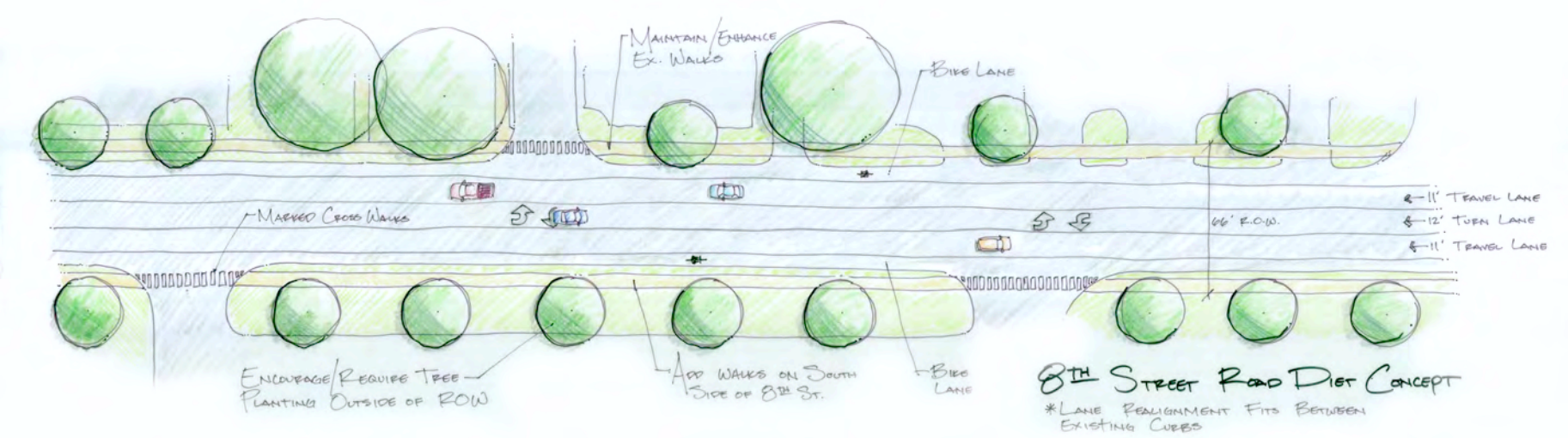
It is also recommended that the Chicago Drive/8th Street intersection be reconfigured to facilitate safer non-motorized connections and crossings. The charrette team considered a variety of reconfiguration options (shown below) and determined that additional exploration is needed to identify the optimal design for the intersection. Options considered during the charrette included creating a “T” intersection that eliminates the through traffic lane for east-bound traffic on 8th Street and an elongated roundabout that also incorporates the Fairbanks Avenue intersection. Construction of an elongated roundabout would likely require the acquisition of additional right-of-way and reconfiguration of adjacent parking areas on private properties.



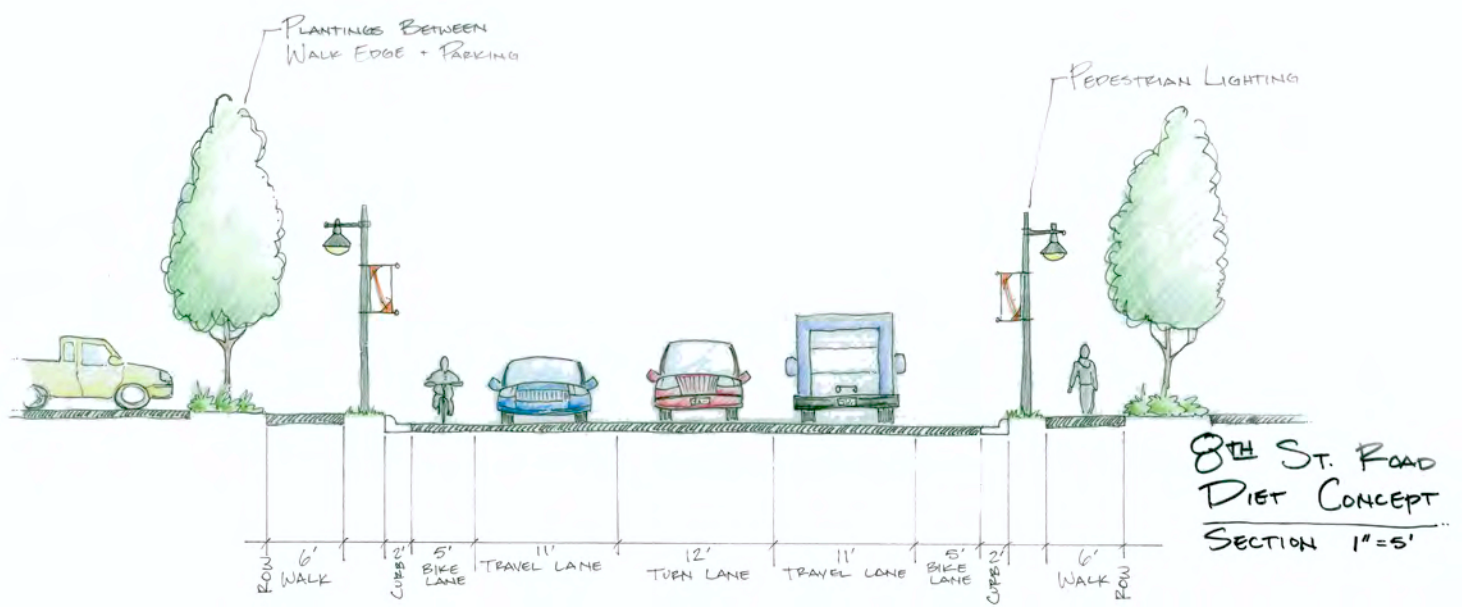
The charrette team considered multiple potential options for the improvement of the Chicago Drive/8th Street intersection, including the creation of a “T” intersection (middle) and elongated roundabout (right).

Improvements to the 8th Street Corridor

Recommendations made by the charrette team for the 8th Street corridor aimed to improve visual character, create a unified identity for the area, and improve the safety and efficiency of non-motorized transportation. The first recommendation for the corridor is for the City and Township to consider a “road diet” for 8th street within the study area. This would include reducing the number of vehicular travel lanes from four to three. The conceptual plan and cross section drawings on the next page show how this road diet could provide for one travel lane in each direction, a center left-turn lane, and bike lanes on each side of the street. The drawings also show a continuous sidewalk along each side of 8th street. These design changes could fit within the existing 66’ right-of-way, although the buffer space between the curbs and sidewalks would be narrow and unable to accommodate the planting of street trees.

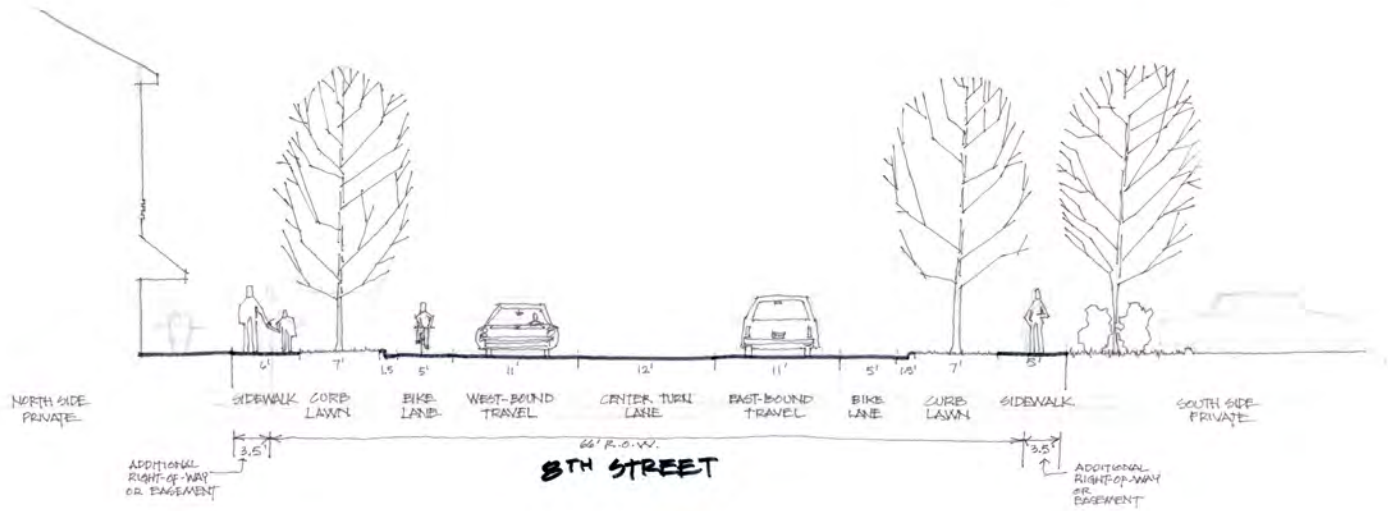


Conceptual plan drawing illustrating a potential “road diet” on 8th Street with three vehicular travel lanes, bike lanes, and continuous sidewalks.



Conceptual cross section drawing showing a potential “road diet” on 8th Street with three vehicular travel lanes, bike lanes, sidewalks, and streetscape improvements.

Alternatively, widening the right-of-way could provide for additional space between the curbs and sidewalks, allowing greater space for street trees and lighting to be placed between the road edge and pedestrian routes. A cross section showing the road diet incorporating additional right-of-way is shown below. The inclusion of consistent streetscape elements like lighting and street trees would also improve the visual character of the corridor and help solidify an identity for 8th Street. The before and after images shown on the following page show how 8th Street could be transformed if the road diet and streetscape improvements are implemented. The first of these images also shows how mixed-use infill development near the road edge could improve the character of the corridor and the pedestrian experience.



Conceptual cross section drawing showing a potential “road diet” on 8th Street with a widened right-of-way to better accommodate additional space between the curbs and sidewalks for street trees and lighting.

It is also recommended that pedestrian crossings at US-31 and 8th Street be improved to increase safety and better accommodate non-motorized travel across the highway. Improvements recommended include the construction of a sidewalk on the south side of 8th Street and more visible crosswalk markings. Potential improvements to pedestrian crossings on 8th Street at US-31 are shown in the before and after images on page 24.

Vehicular and Pedestrian Circulation within the Neighborhood

8th Street before potential improvements.

8th Street after road diet and streetscape improvements.

8th Street before potential improvements.

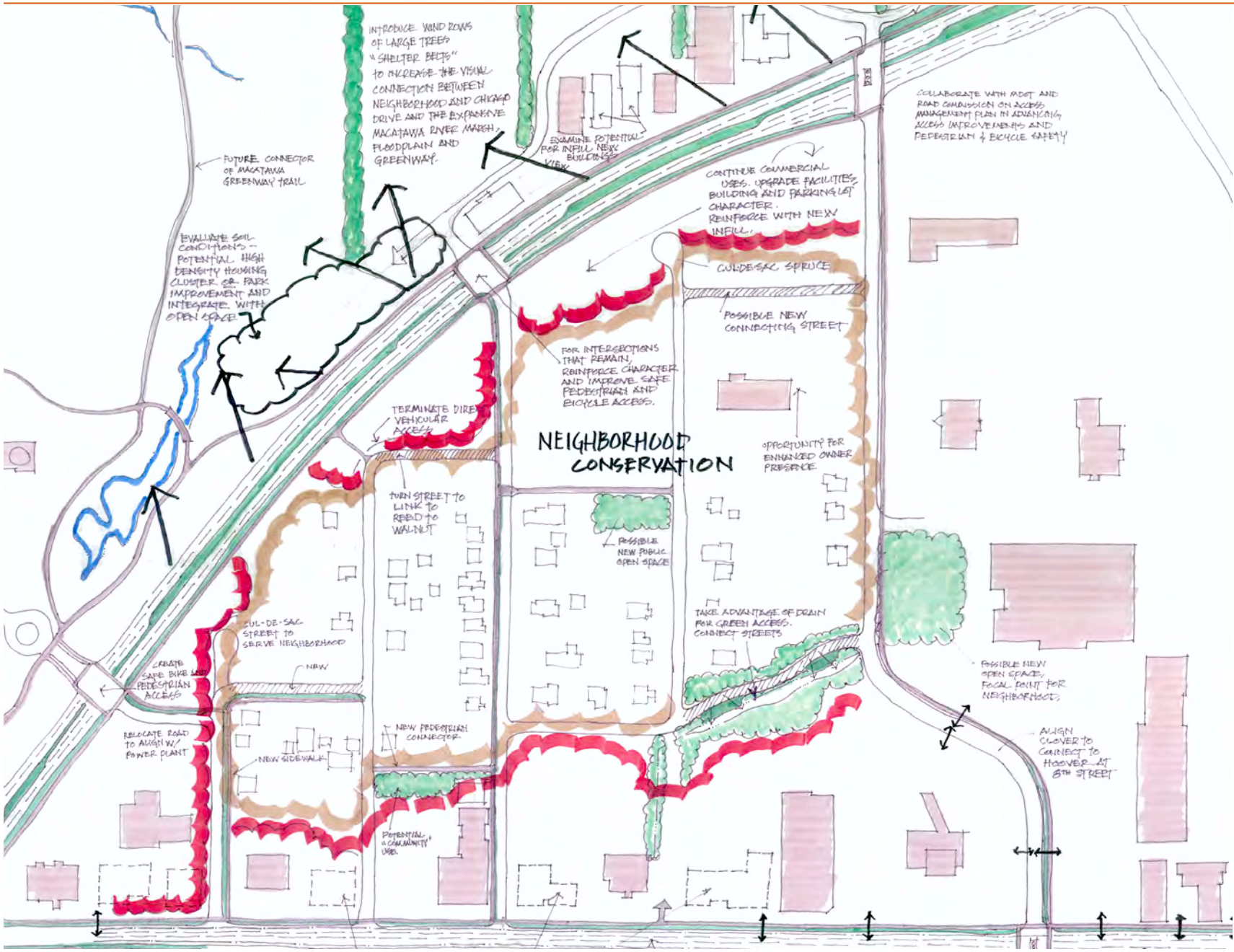
8th Street after road diet and streetscape improvements.

US-31/8th Street intersection before potential improvements.

US-31/8th Street after potential crosswalk improvements.

As mentioned previously in this report, the charrette team made a series of recommendations for potential changes to the vehicular and pedestrian circulation routes within the Federal School Neighborhood between Chicago Drive and 8th Street. It is recommended that three of the north-south streets within the neighborhood (Highland Avenue, Reed Avenue, and Spruce Avenue) be terminated at their northern ends, eliminating intersections on Chicago Drive. In order to prevent these from becoming dead end streets, proposed connector streets between the north ends of the terminated streets are recommended. An additional east-west connector street is proposed from the south end of Spruce Avenue east to Clover Street. These new connector streets can be seen on the enlargement of the potential improvements plan on page 25. Additionally, new sidewalks are proposed within the neighborhood along the east side of Highland Avenue, the west side of Walnut Street and the east side of Clover Street.

It is also recommended that Clover Street be realigned at its southern end to connect with Hoover Boulevard at 8th Street. This would allow for the potential creation of a new signalized intersection with signalized crosswalks. This realignment would necessitate cooperation with private property owners and the acquisition of additional road right-of-way. The potential realignment of Clover Street can be seen on the enlargement of the potential improvements plan on page 25.



The potential improvements plan (above) shows a variety of recommendations for vehicular and pedestrian circulation within the study area.

Connections to Natural Areas

Charrette participants identified a strong desire to better link the Chicago Drive corridor and the surrounding area to the natural areas of the Macatawa Greenway that lie north of the corridor and along the Macatawa River. The charrette team recommends that multi-use trail connections between the proposed pedestrian circulation system along Chicago drive and the future Macatawa Greenway trail be made. Connections to the proposed trail system on the Holland Energy Park property are also recommended. Additional future non-motorized transportation connections could be made to Windmill Island, Freedom Village, the train station, and downtown through a potential tunnel under the railroad tracks to the north of the new power plant. These potential non-motorized transportation connections can be seen on the Chicago Drive/8th Street potential improvements plan on page 18.

The charrette team also made recommendations to help improve visual connections between the Chicago Drive corridor and the Macatawa Greenway natural areas. It is recommended that a series of “shelter belts,” or wind rows of large trees, be planted between the corridor and the natural area. These shelter belts would increase the presence of natural elements near the corridor and help draw the attention of passing motorists up and into the natural area, increasing the awareness of this under-appreciated resource. Potential locations for these shelter belts can be seen on the potential improvements plan on page 18 and a conceptual sketch showing how the shelter belts might look from Chicago Drive is shown below. Also shown on the potential improvements plan are potential locations for future public open spaces, or parks, within the Federal School Neighborhood. The addition of these public spaces would preserve existing open spaces within the neighborhood and improve quality of life for residents by providing recreational amenities within close proximity to their homes.

Conceptual sketch showing potential “shelter belts” along Chicago Drive.

IMPLEMENTATION - TOOLS AND PRACTICES

DESIGN GUIDELINES

In an effort to improve the visual appearance of the built environment along the corridors in each study area, the City and Township Planning Commissions should work with property owners along the corridors to establish a comprehensive set of design guidelines. In general, the design guidelines should establish standards that support a more walkable and pedestrian-oriented corridor. The guidelines should address overall site design (parking, building location, mechanical infrastructure and access), landscaping, building form and orientation (bulk, entrances and façades), and signage. In addition, the guidelines could integrate components of sustainability in landscaping and building façades, such as solar panels and green roofs. Collaborating with local property owners is important, as they can be the biggest advocates of change. It is important to understand that design guidelines are not regulatory documents, they are simply guidelines. However, design guidelines help to establish the foundation for any future zoning changes that might address these components.

ZONING

The City of Holland and Holland Charter Township Planning Commissions should consider amending their zoning ordinances to align with and support the design and sustainability standards outlined in the design guideline document and desired components of the charrette report. The Planning Commissions should thoroughly review existing zoning language to determine if it allows and promotes the type of development recommended in this report. Potential amendments could be in the form of overlay zoning districts or entirely new zoning districts. Zoning amendments that allow for a mix of uses, where desired, will be required prior to the redevelopment of the properties within the study areas. In addition, zoning amendments should address parking, landscape, building form, and signage standards.

SURFACE TRANSPORTATION BLOCK GRANT SET-ASIDE PROGRAM

The Surface Transportation Block Grant Set-aside Program (formerly the Transportation Alternatives Program) was authorized in the Fixing America's Surface Transportation Act (FAST Act). Under the program, each state Department of Transportation is required to allocate 2 percent of its total Federal Highway funds for programs and projects defined as transportation alternatives. Examples of transportation alternatives include non-motorized trails, sidewalks, transit stops or stations, and education and safety programs such as Safe Routes to School. This is a potential funding source for many improvements within the study areas.

NATURAL RESOURCE FUNDING SOURCES

The Michigan Natural Resources Trust Fund (MNRTF) provides funding assistance for state and local outdoor recreation needs, including land acquisition and development of recreation facilities. This assistance is directed at creating and improving outdoor recreational opportunities and providing protection to valuable natural resources. Grant amounts range from $15,000 to $500,000, with a required minimum local match of 25 percent. The Land and Water Conservation Fund (LWCF) provides grants to local units of government to acquire and develop land for outdoor recreation. At least 50 percent match on either acquisition or development projects is required from LWCF applicants. These funding sources could be investigated to support efforts to create or redevelop public parks and open spaces within the study areas.

CORRIDOR IMPROVEMENT AUTHORITY

A Corridor Improvement Authority functions in a similar way to that of a Downtown Development Authority (DDA). A Corridor Improvement Authority could be established by the City to oversee a more concerted effort to plan for, fund, and implement mutually beneficial public infrastructure projects and the redevelopment and revitalization of under-performing commercial properties along the Washington Avenue corridor. Similarly, a Joint Corridor Improvement Authority could be established by the City and Township to oversee improvements to the Chicago Drive and 8th Street corridors. A Joint Corridor Improvement Authority would be overseen by a board made up of residents, business owners, and public officials from each of the jurisdictions. The Corridor Improvement Authority Act also allows such inter-governmental bodies to utilize Tax Increment Financing (TIF) to fund and maintain public infrastructure projects.