Big Rapids Master Plan

Adopted: TBD

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Introduction

CHAPTER 1 INTRODUCTION

Big Rapid Master Plan 2024

The City of Big Rapids has an abundance of historical and cultural resources: numerous local parks, the Muskegon River, a thriving art scene, the White Pine Trail, museums, festivals, walkable neighborhoods, a charming downtown, and Ferris State University. The City is an exciting year-round destination for people to visit and call home. Residents love this community, and support efforts for its growth and development in ways that align with this plan.

The City of Big Rapids Master Plan 2024 is a significant update from previous master plans. Steering Committee members' input and community engagement activities provided rich information that guided the development of the Plan. With the creation of new goals and objectives, a refocused future land use map, and revised future land use categories, the City has new tools to use to guide growth in the neighborhoods within the City and spur investment in Downtown. Understanding that there is potential for future housing developments, improvements to the transportation network, and support for revitalization in areas across the community, Big Rapids can use the Master Plan to achieve its growth and development goals for years to come.

What is a Master Plan?

A master plan represents a statement about what a community is, what its residents value, and what the residents and businesses hope the community will become in the future.

The Master Plan is comprised of several different sections, including a description of the existing data and trends related to the City's population, the natural features of the land, and City services. Goals and objectives provide a framework to help local officials, Planning Commission members, City staff, and the public realize that vision.

In addition, the Master Plan provides the City with a guide for land use, the character of new development, and opportunities for new development, redevelopment, and conservation. The Master Plan serves as the basis for land use decisions and regulation under zoning and other regulatory means. This master plan has been developed pursuant to the Michigan Zoning Enabling Act (Act 33 of 2008, as amended), which enables municipalities in Michigan to undertake planning efforts.

The City of Big Rapids Master Plan is an update of the previous master plans, subsequently adopted in 2009 and 2018. This new plan focuses on investing in existing utilities and infrastructure, provides guidance for the location of future housing, commercial, and other land uses, and investments in the nonmotorized network. This information is further detailed in chapters of the document. Understanding that there has been a lot of good, useful, and pragmatic investment in the City's services and infrastructure over time, this plan aims to enable the community to be proactive and resilient. **Decisions made today will shape the future of Big Rapids.**

How Should You Use this Plan?

Consider the following steps in helping you understand how to use this plan.

STEP 1. Consider how future land use is proposed for your property and/or the area surrounding your property.

This information is on the future land use map in Chapter 7. The map is divided into separate land use categories. Find the location you want on the map, and then use the legend to identify the land use category for the parcel(s) or land area.

STEP 2. Determine what the Future Land Use Map shows for your area, and consider how the Planning Commission may interpret the information on the map.

The future land use map will indicate the general idea of what development in the future may be within your area – it may be specific or it may be general, depending on the narrative provided for the future land use class in Chapter 7. The Future Land Use map is meant to be a development guide for the Planning Commission.

STEP 3. Determine the meaning of the land use designation for your property.

After determining the land use designation for your property, read the text in the future land use section of Chapter 7 Land Use. This text will indicate the general future direction of development within the area. If you have a specific proposal that does not fit the future land use map, you may want to investigate the Plan in more detail, beginning with the goals and objective statements.

STEP 4. Determine how the Plan affects your property.

The future land use designation will indicate to you how your property is planned for use in the future. The way the land is currently used is acceptable. Land use within City of Big Rapids is also affected by the zoning for your property. See the City of Big Rapids Zoning Ordinance or call City Hall for more information.

Demographics

CHAPTER 2 DEMOGRAPHICS

Understanding the demographics of a community is crucial for comprehending its growth, development, and potential effects on land usage. This section of the Plan presents comprehensive data on population, housing, social dynamics, and employment characteristics specific to the City of Big Rapids. These demographic factors provide valuable insights into potential future conditions and serve as a foundation for anticipating housing needs and guiding land development in the City of Big Rapids.

This chapter incorporates data sourced from the United States Census Bureau and the American Community Survey (ACS). The ACS data is influenced by the decennial census conducted by the U.S. Census Bureau. The decennial census serves as the foundation for the ACS, providing important baseline data for population counts, demographics, and housing characteristics. The ACS itself is a continuous survey that collects more detailed information on a smaller sample size throughout the years between the decennial census to establish a reliable framework for its ongoing survey. The decennial census ensures that the ACS data is grounded in an updated and representative snapshot of the population, enhancing the accuracy and usefulness of the ACS in providing current demographic and socioeconomic information.

Population

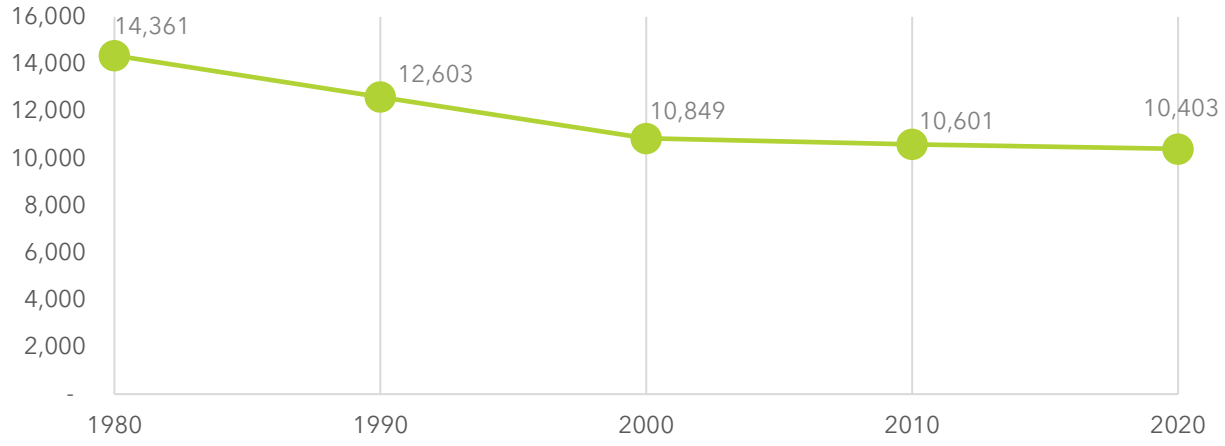
Note: The presence of Ferris State University in the City of Big Rapids contributes to a substantial increase in the City's population through the influx of students during the school year. Due to the 2020 U.S. Census being completed during the beginning of the COVID-19 pandemic, there were many challenges faced by the Census Bureau. Among them was the potential impact that college towns faced as universities closed down and told their on-campus student population to head home, as dormitories closed. Once the U.S. Census had gathered and disseminated U.S. Census 2020 population counts, many cities across the country that had large college student populations refuted final count data, citing concerns that the population count was inaccurately low due to students vacating campuses amid the coronavirus pandemic.

The City of Big Rapids successfully submitted a request to the Census Bureau requesting a review of population counts for group quarters on the campus of Ferris State University. Due to the Covid-19 pandemic, the University closed on-campus housing and the students were asked to move out prior to March 23, 2020 resulting in a net reduction of 2,676 students. The Census Bureau granted the request and allowed the City of Big Rapids to add 2,676 students that were not reflected in the 2020 census population count for the purposes of federal funding and the City's use of population numbers. However, the additional population will not be reflected in the US Census's final data results, data on the US Census website, and data subsets that include topics like housing, race, age, income, etc. This has been documented by the City of Big Rapids Community Development Department and is important to note for the future use of this plan and 2020 US Census data for the City of Big Rapids.

In the rest of this document, unless otherwise noted, the City's accepted revised population of 10,403 for the US Census 2020 number is used. However, any housing, economic, demographic, and other data subsets that are based on the U.S. Census will be based on the initial City of Big Rapids population count of 7,727 people.

The City of Big Rapids has experienced a steady decline in population since 1980. The population of the City according to the 2020 U.S. Census was reported to be at 7,727 people. However, as mentioned earlier, the corrected population after including the students living in group quarters was reported to be 10,403. The City has maintained a consistent population of around 10,600 over the last couple of decades as shown in Figure 2.1.

Figure 2.1 | Population Trend 1980-2020, City of Big Rapids



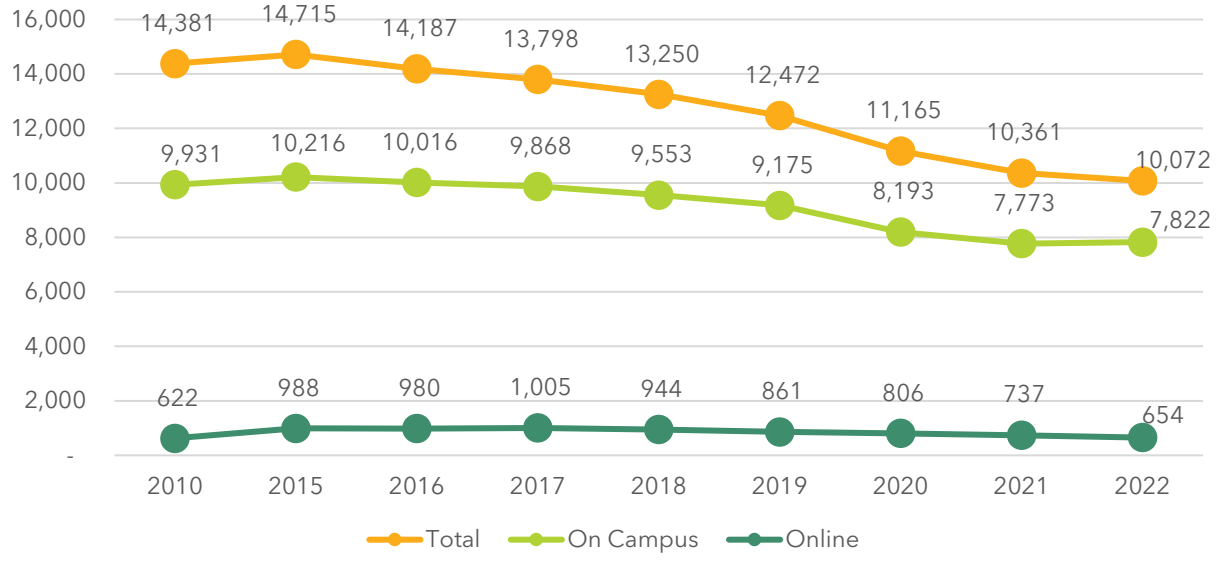
Source: U.S. Census Bureau 1980-2020

Table 2.1 | Regional Population Trend, 1980-2020

Community	1980	1990	2000	2010	2020
City of Big Rapids	14,361	12,603	10,849	10,601	10,403
Big Rapids Township	2,471	3,100	3,249	4,208	3,917
Green Township	2,847	2,833	3,209	3,292	3,219
Mecosta County	36,961	37,308	40,553	42,798	39,714

Source: U.S. Census Bureau 1980-2020

Figure 2.2 | Student Enrollment 2010-2022, Ferris State University



Source: Fall Enrollment Summaries, Ferris State University.

The City of Big Rapids is also home to Ferris State University, which substantially contributes to an increase in the City's population through the influx of students it attracts. In the 2019 – 2020 school year, Ferris State University had a total student enrollment of 11,165, with approximately 8,193 students enrolled at its main campus in Big Rapids.

Figure 2.2 reveals a downward trend in student enrollment at Ferris State University, mirroring the declining population trend observed in the City of Big Rapids, especially for students who study at the main campus in the City. The number of students enrolled on campus has shown a gradual decline over the years, with a decrease from 9,931 in 2010 to 7,822 in 2022. In contrast, online enrollment has fluctuated but remained relatively stable, ranging from 622 in 2010 to 654 in 2022. A notable drop in student enrollment can be observed between 2019 and 2021, which was at least partially influenced by the impacts of the COVID-19 pandemic. In 2020, the total enrollment decreased to 11,165, with a decrease in both on-campus and online enrollment numbers. However, there has been a small increase in the number of students from 2021 to 2022 which may indicate a gradual recovery from the initial impact of the pandemic.

The total number of students attending Ferris State University has been on the decline since 2015. There may be a variety of factors that are affecting this decline, but this decrease is also likely impacting the decline in the City's overall population.

Population Projections

Statistical averaging techniques were used to project the City's likely population growth through the year 2050. These approaches are intended to provide a general sense of growth in the future. The following generalizations are limited in scope and are based on past trends documented by the United States Census Bureau data. These projections can be used to understand the future position of the City in terms of growth and total population. There are three different projection techniques explored in this section.

Table 2.2 shows the results for a method for predicting population growth or decline known as the Arithmetic Method. This method projects future population counts based on the increase or decrease in the average number of persons per year. The following projections are based on an average decrease of 33 persons per year in Big Rapids since 1980.

Table 2.2 | **Arithmetic Population Projection, 2020-2050**

Arithmetic Method	2020	2030	2040	2050
Population Projection	10,403	10,073	9,743	9,414

Table 2.3 shows the results of the Growth Rate Method to project the population. This method assumes growth or decline will occur at the same rate as it did in the past, similar to the Arithmetic Method. According to the U.S. Census, the population rate of decline in the City of Big Rapids was approximately 0.3% per year between 1980 and 2020.

Table 2.3 | | Growth Rate Population Projection, 2020-2050

Growth Rate Method	2020	2030	2040	2050
Population Projection	10,403	10,143	9,890	9,643

The Building Permit Method is another population projection technique. The growth rate is based on the number of residential building permits issued by the County for the City. A total of 60 permits were allowed in the City of Big Rapids from 2010 – 2022 with an average of 5 permits per year. The City's average household size as estimated by the Census Bureau was 2.09 persons. Extrapolating these figures into the future may project likely population growth if current trends remain the same.

Table 2.4 | Building Permit Population Projection, 2020-2050

Building Permit Method	2020	2030	2040	2050
Population Projection	10,403	11,594	12,786	13,977

Table 2.4 summarizes the population projection information based on the number of building permits provided by the City. The projections summarized assume that the past trends will continue, which limits the reliability of the information but is useful. Projections are based on population counts documented by the United States Census Bureau (see note at the beginning of this section for information on 2020 population) and building permit data was provided by Mecosta County.

Table 2.5 | Population Projections

	Current	Projected Population		
Method	**2020**	**2030**	**2040**	**2050**
Arithmetic	10,403	10,073	9,743	9,414
Growth Rate	10,403	10,143	9,890	9,643
Building Permit	10,403	11,594	12,786	13,977
Average	10,403	10,604	10,806	11,011

Race

When examining the racial composition of the City of Big Rapids, a significant majority, representing 83.0% of the population, identifies as White. The population of individuals identifying as two or more races comprises 7.2% of the total population, as shown in Table 2.6. The Black or African American community is also represented, making up 5.8% of the population. With 2.1%, the Asian population has a smaller presence compared to other groups. Some other race category, represents 1.4% of the population, without further details on specific racial backgrounds. The American Indian and Alaska Native population accounts for 0.5% of the total, while the Native Hawaiian and Other Pacific Islander group has the smallest representation at just 0.1%. Overall, the population shows a dominant presence of the White racial group, with notable diversity among other racial categories.

Table 2.6 | Racial Composition 2020

Race	Percent
White	83.0%
Population of two or more races	7.2%
Black or African American	5.8%
Asian	2.1%
Some other race	1.4%
American Indian and Alaska Native	0.5%
Native Hawaiian and Other Pacific Islander	0.1%

Source: U.S. Census Bureau 1980-2020.

Age

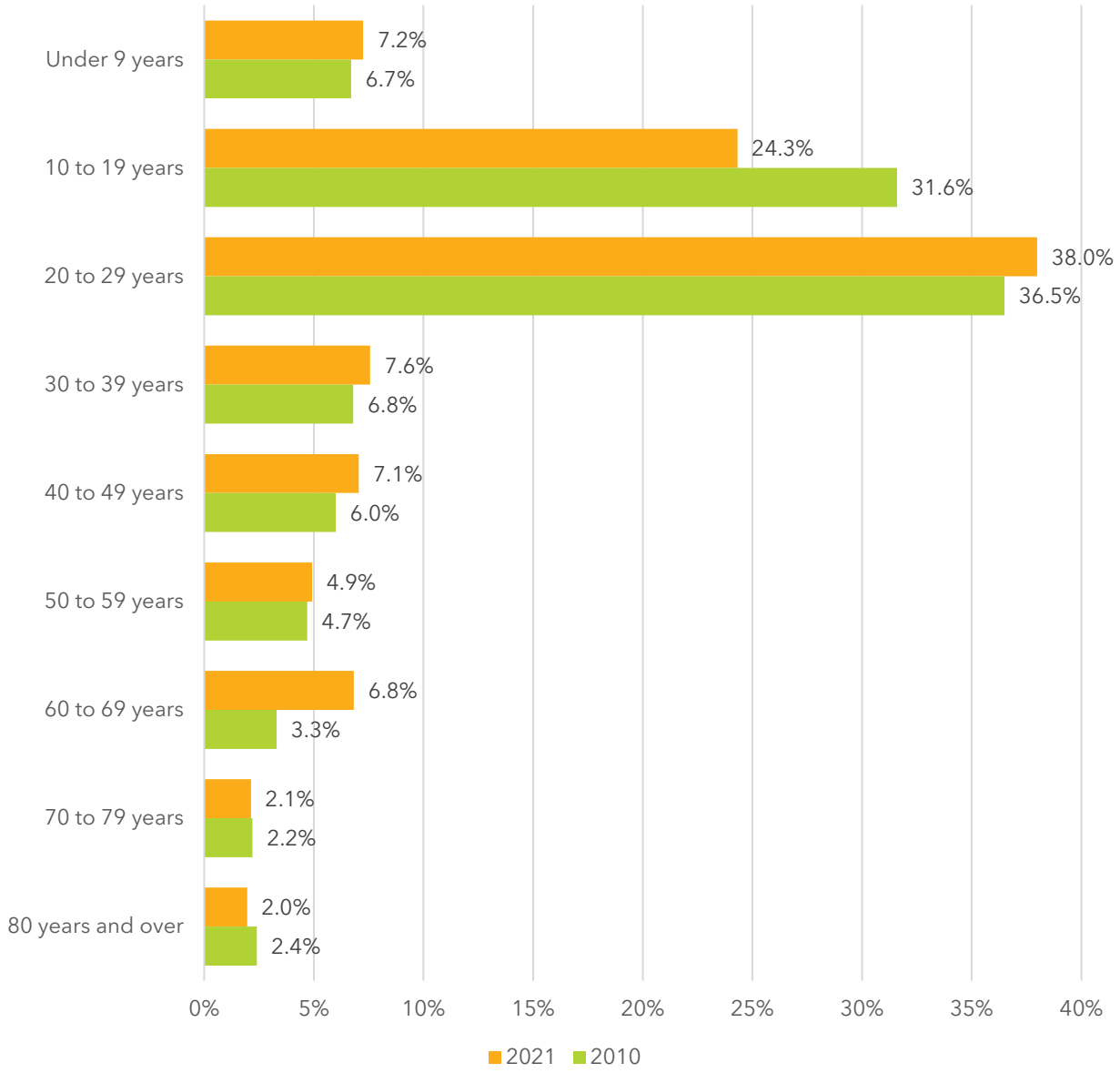
Based on the percentages of different age groups in the City of Big Rapids, Figure 2.3 provides insights into the age distribution within the community. Determining the age distribution provides valuable insights for informing policies and strategies related to education, healthcare, housing, recreational facilities, and social services, ensuring that the City meets the diverse needs of its residents across different life stages.

The age distribution in 2021 is similar to the statistics from 2010 with slight differences, as shown in Figure 2.3. The largest age group in the City is individuals between 20 to 24 years old, accounting for 32.5% of the population. This suggests a significant presence of college students or young adults in that age range. The second most prominent age group is individuals between 15 to 19 years old, comprising 20.9% of the population. This further supports the notion of a substantial student population, potentially including high school students. Other age groups with

noticeable representation include 25 to 29 years (5.5%), 30 to 34 years (3.5%), and 35 to 39 years (4.1%), indicating a presence of young adults in the City. The older age groups, such as 70 years and older, generally have smaller percentages, ranging from 0.9% to 3.6%.

The median age of the City was estimated to be 22 years which is significantly lower than that of the County (37.8) and the State of Michigan (40.2). Overall, the data suggest that the City of Big Rapids has a relatively young population, with a significant concentration of college students and young adults due to the presence of Ferris State University.

Figure 2.3 | **City of Big Rapids, Age Distribution**

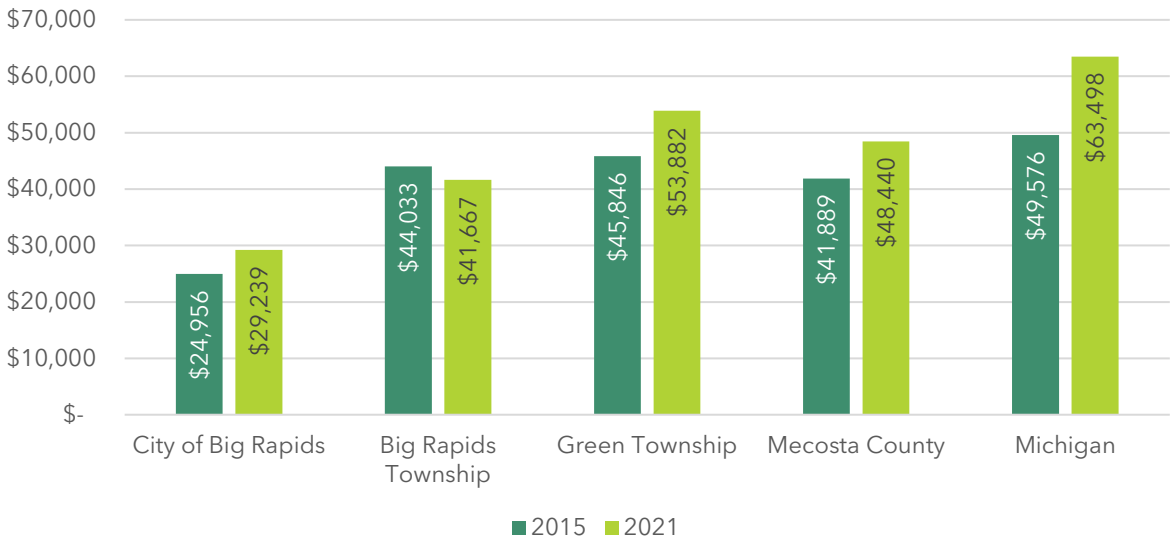


Source: 2010-2021 American Community Survey.

Income

Income distribution is crucial for assessing and planning the City's tax base, as it provides insights into the earning capacity of residents, business revenues, and overall economic vitality. This information is valuable for ensuring that the City can adequately fund essential services and infrastructure to meet the needs of its residents and maintain a thriving community.

Figure 2.4 | Median Household Income Comparison, 2015-2021



Source: 2015-2021 American Community Survey.

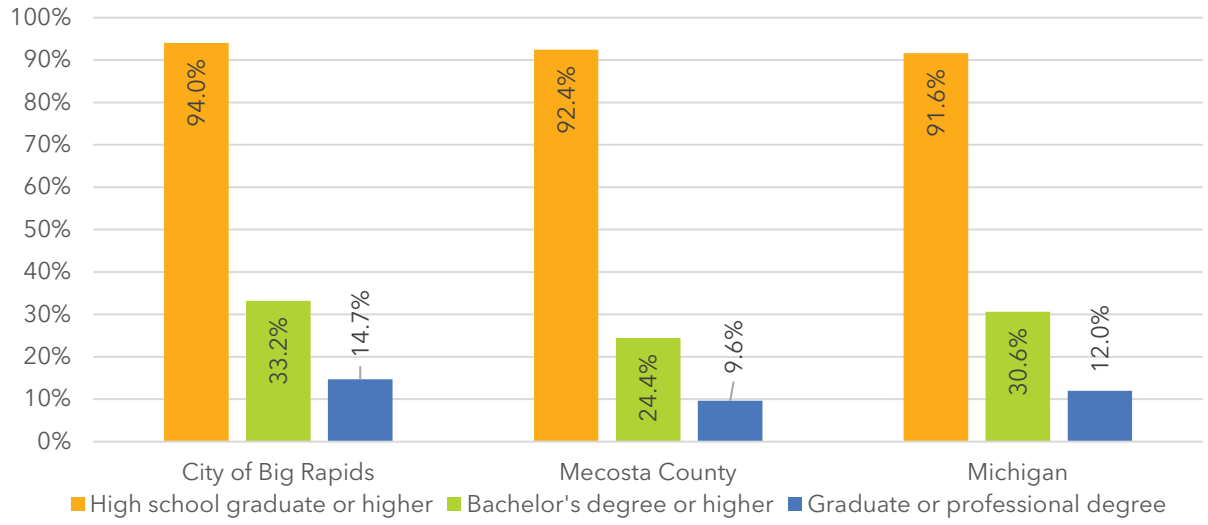
Median household income is traditionally used to measure the economic strength of an area. It is also a helpful indicator to identify disparities between communities. Figure 2.4 compares the 2021 median household income in the City of Big Rapids to surrounding communities. The median household income in the City of Big Rapids is lower compared to Big Rapids Township, Green Township, Mecosta County, and the state of Michigan in 2015 and 2021.

As with all of the other population characteristics, the City's student population influences these numbers. The presence of a significant student population from Ferris State University might contribute to the lower median household income. Since many students are financially dependent on limited income sources, such as part-time jobs or financial aid, their lower income levels may impact the overall income statistics for the City.

Education

Figure 2.5 shows the educational attainment levels for Big Rapids and comparison areas for residents (over 25 years of age). The City of Big Rapids has a higher percentage (94.0%) of individuals with a high school diploma or higher compared to Mecosta County (92.4%) and the state of Michigan (91.6%). The City of Big Rapids surpasses Mecosta County and the state of Michigan in terms of the percentage of individuals with a bachelor's degree or higher and individuals with a graduate or a professional degree.

Figure 2.5 | Educational Attainment, 2021



Source: 2021 American Community Survey.

The data indicates that the City of Big Rapids has higher educational attainment levels, including both bachelor's and graduate or professional degrees, compared to Mecosta County and the state of Michigan. This suggests a relatively more educated population that lives in Big Rapids.

Employment

Employment data serves as a critical foundation within a master plan, enabling a comprehensive understanding of the local economy, workforce dynamics, infrastructure requirements, housing needs, and community development. By incorporating employment data, a master plan can effectively address the economic, social, and livability aspects necessary for the sustainable growth and well-being of the community.

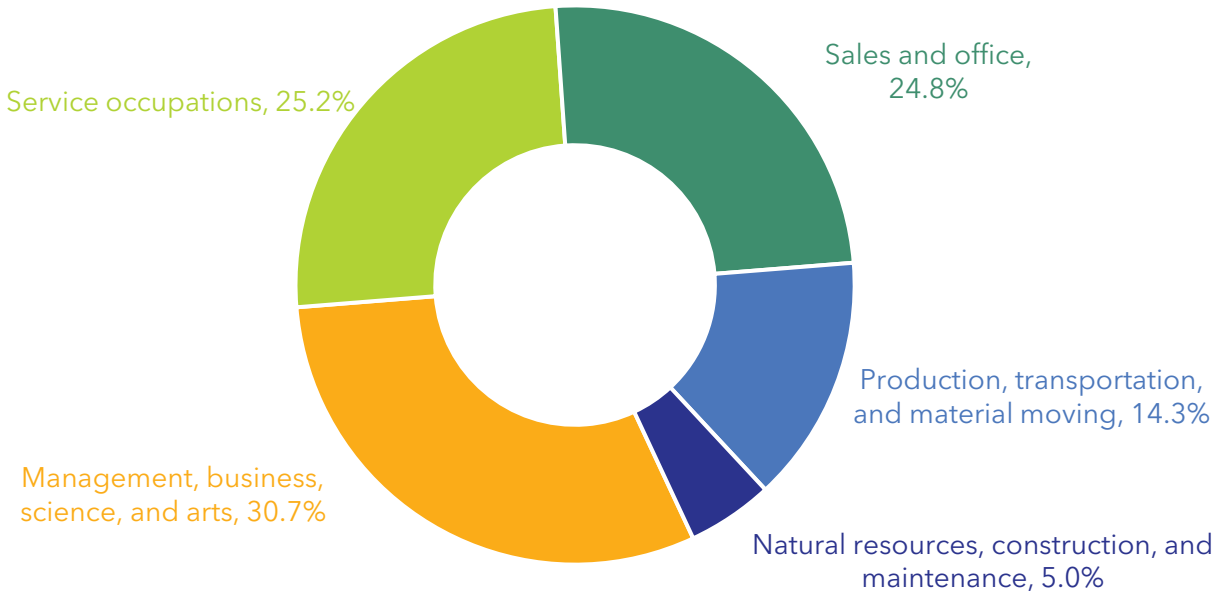
Labor Force

According to the 2021 ACS 5-year estimates, there were a total of 8,068 people of age 16 or above in the City of Big Rapids. Of that, 4,957 individuals were estimated to be a part of the labor force. Within the labor force, there are 4,947 individuals classified as the civilian labor force. Out of the civilian labor force, nearly 4,600 individuals are estimated to be employed and about 347 people are estimated to be unemployed. The estimated unemployment rate in the City of Big Rapids stands at 7%, which is relatively consistent with the state's average of 6.9%, but higher than Mecosta County's rate of 5.5%.

Occupations

As shown in Figure 2.6, the data reflects a diverse range of occupations within the City of Big Rapids, with a significant presence of professionals in management, business, science, and arts occupations. The largest occupational category is *Management, business, science, and arts*, which accounts for 30.7% of the total occupations. The second-largest category is *Service occupations* with a representation of 25.2% of the total occupations. This indicates a substantial workforce engaged in service-oriented roles such as healthcare, food service, hospitality, and personal services. The *Sales and office* category follows closely behind, comprising 24.8% of the total occupations.

Figure 2.6 | **Employment by Occupation, 2021**



Source: 2021 American Community Survey.

The *Production, transportation, and material moving* category accounts for 14.3% of the total occupations. The *Natural resources, construction, and maintenance* category has the smallest representation, making up 5.0% of the total occupations.

Industry

Table 2.7 | City of Big Rapids, Employment by Industry

Employment Industry	Number of People	Percent of People
Educational services, and health care and social assistance	1,418	30.8%
Arts, entertainment, and recreation, and accommodation and food services	932	20.3%
Retail trade	807	17.5%
Manufacturing	296	6.4%
Professional, scientific, and management, and administrative and waste management services	250	5.4%
Construction	238	5.2%
Finance and insurance, and real estate and rental and leasing	200	4.3%
Public administration	116	2.5%
Transportation and warehousing, and utilities	98	2.1%
Other services, except public administration	92	2.0%
Information	85	1.8%
Wholesale trade	63	1.4%
Agriculture, forestry, fishing and hunting, and mining	5	0.1%

Source: 2021 American Community Survey.

The location of Ferris State University and the Corewell Health Big Rapids Hospital have a significant impact on the employment landscape in the City of Big Rapids. Being a prominent educational institution, the University attracts a diverse range of professionals, faculty, and staff members who contribute to the local workforce. This creates employment opportunities not only within the University itself but also for nearby businesses and industries that cater to the needs of the University community. The hospital is also a significant employer within the City's municipal boundaries. As a result, the largest employment industry is *Educational services, and health care and social assistance*, accounting for 30.8% of the total industries in the City.

As shown in Table 2.7, the second-largest industry sector is *Arts, entertainment, and recreation, and accommodation and food services*, representing 20.3% of people employed in the City. *Retail trade* follows closely behind, comprising 17.5% of the total number of people employed, showcasing the significance of retail businesses within the area. Other notable industry sectors include *manufacturing* at 6.4%, *construction* at 5.2%, and *professional, scientific, and management services* at 5.4%.

Commuting

Table 2.8 reveals the commuting preferences and transportation habits of workers in the City of Big Rapids. The majority (74.8%) commute using a car, truck, or van while driving alone (68.1%). Public transportation (excluding taxicabs) is used by a small fraction (only 0.5%) while 15.8% choose to walk to work. Bicycling is less common, representing just 0.2% of commuting methods. A small percentage, 2.4%, rely on taxicabs, motorcycles, or other alternative means of transportation. A notable 6.2% of workers have the flexibility to work from home.

Table 2.8 | Commuting Methods of Workers, City of Big Rapids

Commuting Method	Percentage of Workers
Car, truck, or van	74.8%
Drove alone	68.1%
Carpooled	6.7%
Walked	15.8%
Worked from home	6.2%
Taxicab, motorcycle, or other means	2.4%
Public transportation (excluding taxicab)	0.5%
Bicycle	0.2%

Source: 2021 American Community Survey.

Housing

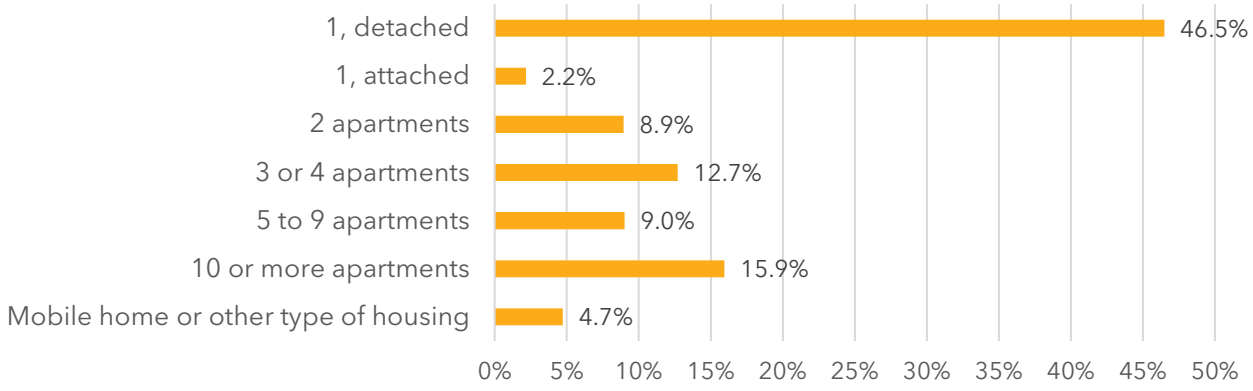
Housing data is crucial in a master plan as it provides essential insights into the current and projected housing needs of a community. The data helps identify housing trends, assess housing affordability, determine housing supply and demand, and guide policy decisions related to housing development and land use. Understanding the housing landscape enables effective planning for housing initiatives, addressing community growth, supporting economic development, and supporting affordable housing options for residents.

Figure 2.8 | Housing by Occupancy, 2021

Source: 2021 American Community Survey.

According to the U.S. Census 2020 data, the total number of housing units in the City of Big Rapids is 3,700. Out of these units, 2,996 (81%) are occupied, indicating that they are currently being used as residences. About 704 (19%) housing units were reported to be vacant housing units. The average household size in Big Rapids was estimated to be 2.09. According to the 2021 American Community Survey, there were approximately 39% of owner-occupied housing units, indicating that individuals or families owned and resided in these properties. The remaining 61% were reported to be renter-occupied.

Figure 2.9 | Housing by Occupancy, 2021



Source: 2021 American Community Survey.

Figure 2.9 presents an estimated overview of the existing housing types in the City of Big Rapids. Among the occupied housing units, the majority (46.5%) consists of detached houses, indicating single-family homes. Apartments make up a significant portion, with 8.9% being two-unit apartments, 12.7% being three or four-unit apartments, and 9.0% being five to nine-unit apartments. Larger apartment complexes are also prevalent, with 15.9% comprising buildings containing 10 or more units.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Summary

- **The City of Big Rapids has experienced a decline in population since 1980**, potentially influenced by the changing student population from Ferris State University. This decline was likely exacerbated by the impact of the COVID-19 pandemic, at least for a few years, which resulted in a drop in student enrollment and a shift to online learning.

- **The City has a relatively young population** with a significant presence of college students and young adults. The age distribution indicates a concentration of individuals between 20 to 24 years old, suggesting the substantial presence of college students. This demographic profile shapes the City's needs in terms of education, healthcare, housing, recreational facilities, and social services.

- **The median household income in the City of Big Rapids is relatively lower** compared to surrounding areas. This can be attributed to the **significant student population from Ferris State University**, as many students rely on limited income sources, which impacts the overall income statistics for the City.

- **The City of Big Rapids has higher educational attainment levels compared to the County and State.** The City surpasses Mecosta County and the state of Michigan in terms of the percentage of individuals with a high school diploma or higher, as well as those with a bachelor's degree or higher and graduate or professional degrees. This indicates a relatively more educated population in Big Rapids and is unique for a city of this population size.

- The housing data reveals that **a majority of occupied housing units in the City of Big Rapids are detached houses (single-family homes).** Apartments also make up a significant portion of the housing types, ranging from two-unit apartments to larger apartment complexes. This diverse housing landscape is crucial for understanding housing trends, and affordability, and guiding policy decisions related to housing development and land use.

Natural Features

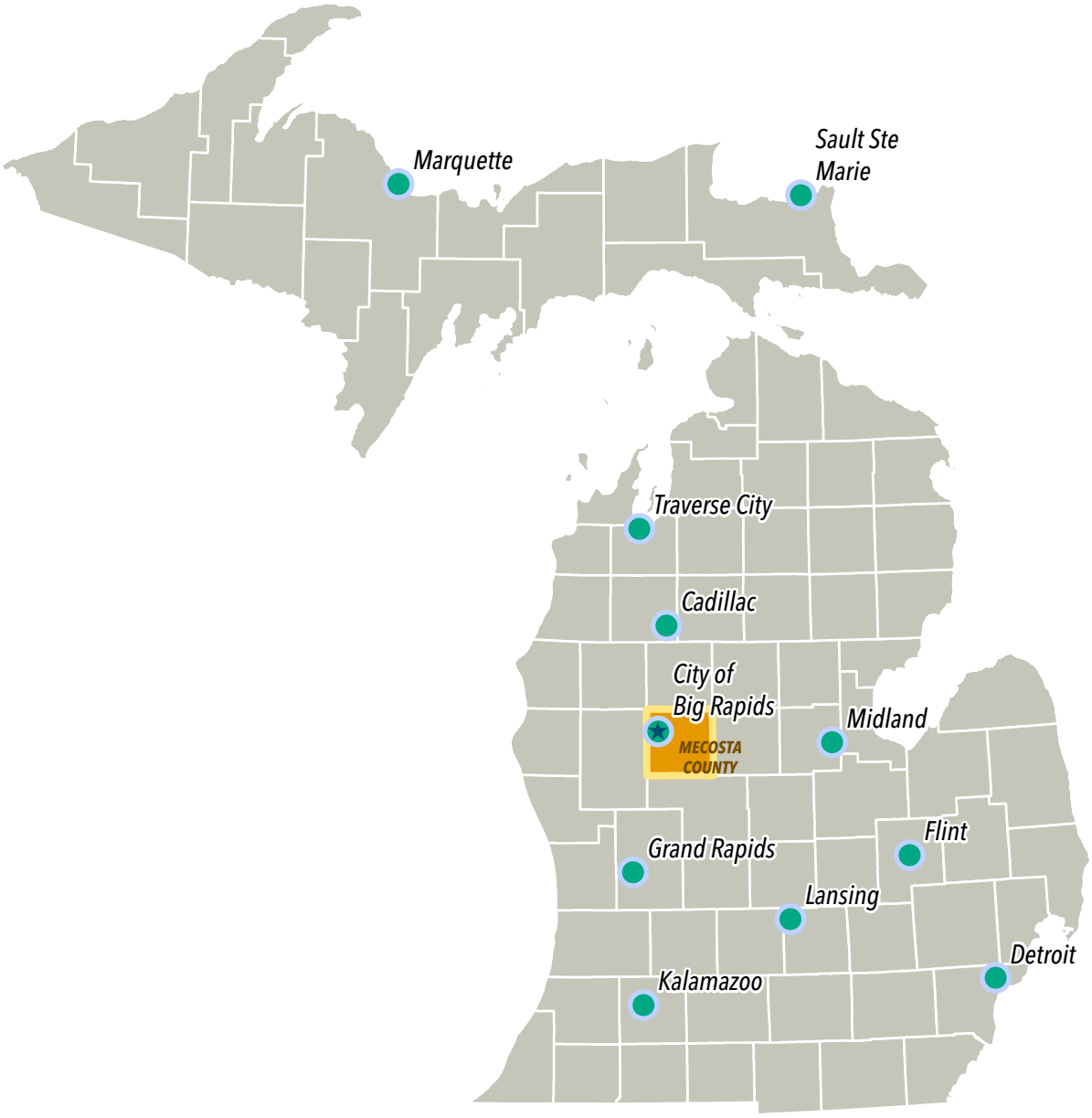
CHAPTER 3 NATURAL FEATURES

The natural features of a city like Big Rapids are vital considerations in the development of a master plan. These features, including rivers, lakes, forests, and open spaces, offer numerous benefits to the City and its residents. They provide environmental advantages by supporting biodiversity, improving air quality, and enhancing climate resilience. Additionally, these natural amenities contribute to the City's aesthetic appeal, cultural identity, and quality of life, serving as gathering places for recreation, community events, and social interactions. They also offer economic advantages through tourism, property value appreciation, and attraction of businesses and skilled workers. Incorporating and preserving these natural features in the Master Plan promotes sustainable development, environmental stewardship, and the long-term well-being of the City and its residents.

Recognizing and incorporating natural features into the Master Plan is essential for promoting environmental sustainability, enhancing quality of life, attracting visitors and businesses, and preserving the unique identity of the City. By prioritizing the protection and integration of these natural assets, the Master Plan can create a balanced and resilient urban environment that benefits both present and future generations.

Geography

The City of Big Rapids, perched on the banks of the Muskegon River, is nestled in scenic Mecosta County. The Big Rapids area is known for its lush, green forests, rolling hills, and scenic lakes, providing abundant opportunities for outdoor enthusiasts. Nearby are an assortment of state parks and recreational areas, including the expansive Huron-Manistee National Forest, Newaygo State Park, Haymarsh Lake State Game Area, and more.



Hydrology

The City of Big Rapids is situated along the Muskegon River. The River serves as a natural boundary and a focal point for community activities. Its presence enhances the aesthetics of the community and contributes to its overall charm and livability.

As shown in Map 2, the Muskegon River is a major waterway that runs northwest to southeast, providing a significant natural feature and shaping the local landscape. The river plays a crucial role in the region's hydrological system, supporting a variety of aquatic life, and recreational activities, and serving as a source of drinking water and irrigation for the surrounding areas. Mitchell Creek is a tributary of the Muskegon River, flowing west through the heart of Big Rapids.

The Muskegon River is known for its diverse habitats, ranging from calm stretches to rapids, which attract kayakers, canoeists, and anglers. It also offers scenic views and opportunities for boating and wildlife observation. Additionally, the river's flow and water quality are important factors for the overall health of the ecosystem and the sustainability of the local environment.

The City of Big Rapids falls entirely within the Muskegon River Watershed. This is important to note as protection of the natural state of the River and its water quality is of utmost importance for communities up and down the River.

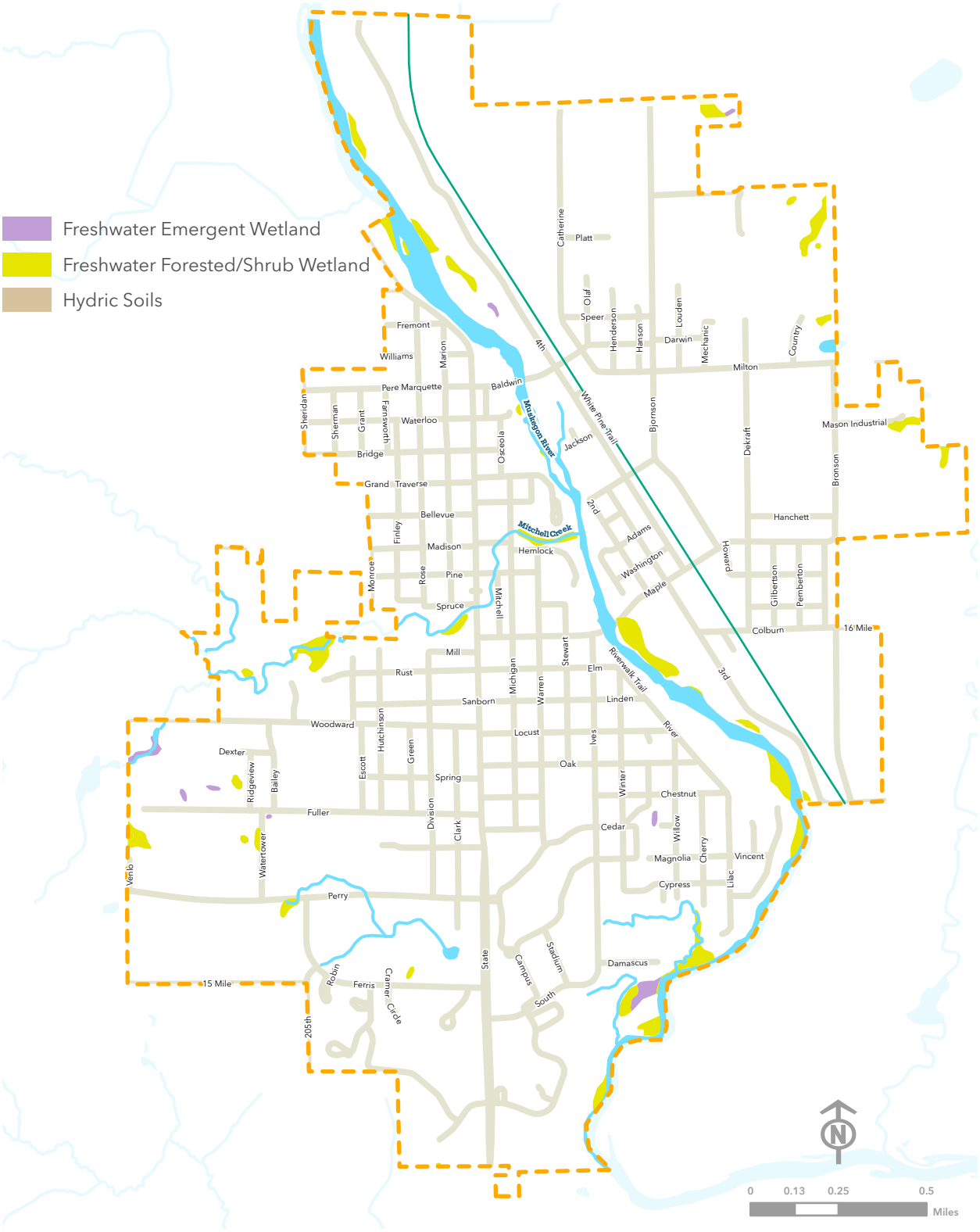
Wetlands

Areas of wetlands in the City can mainly be found around the Muskegon River and the small creeks and streams that flow out to the River. As shown in Map 3, these wetland areas are mainly Freshwater Forested/Shrub Wetlands and areas of Hydric Soils (defined as areas that are almost always saturated with water). Small areas of Freshwater Emergent Wetlands exist in the City and are largely located around the Muskegon River and its tributaries.

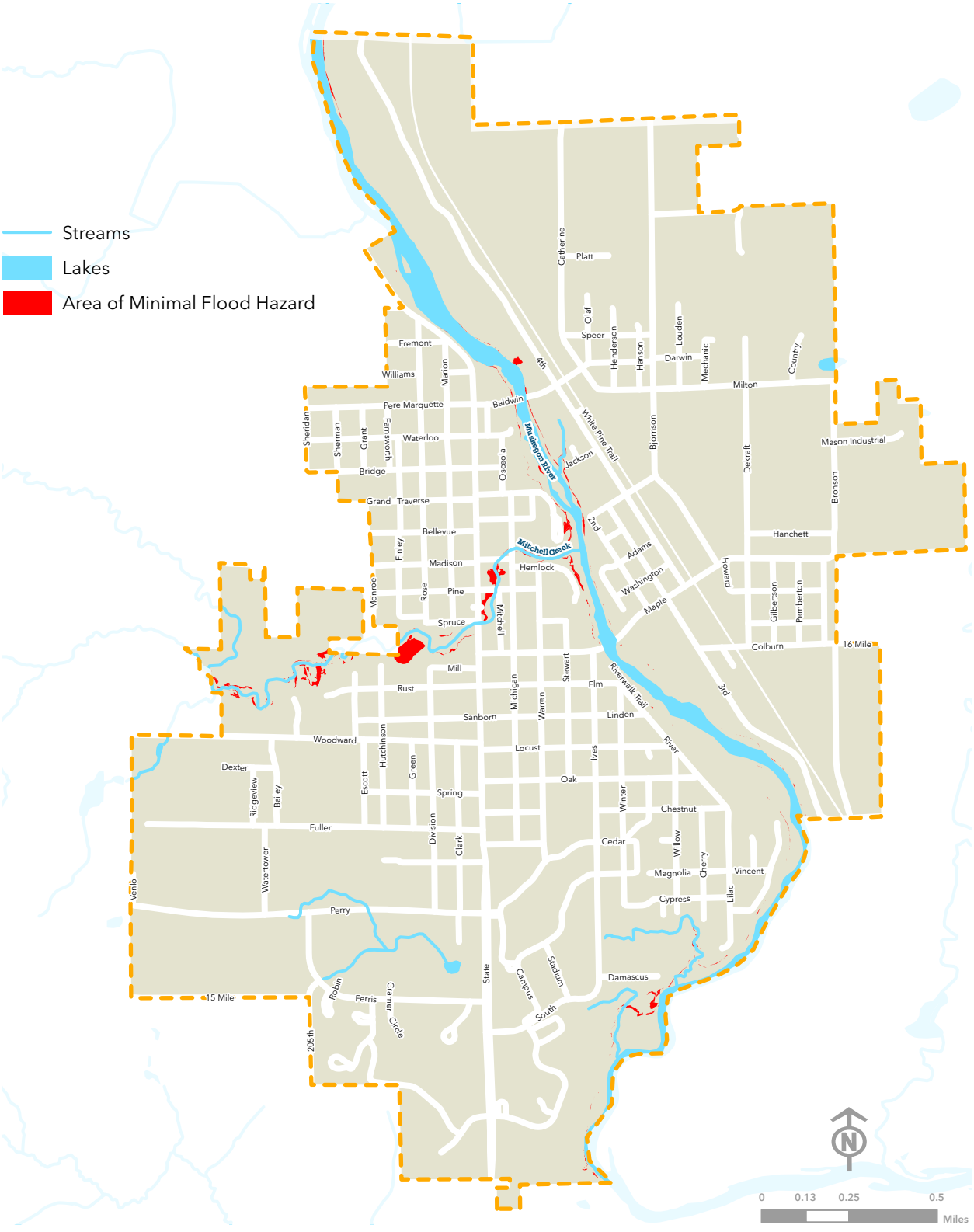
Wetlands are vital to the local ecosystem as they can provide essential breeding grounds, nesting sites, and feeding areas for a variety of waterfowl, migratory birds, and amphibians. They also serve as a natural filtration system, purifying water, and mitigating floods by absorbing excess rainfall and run-off.

Map 2 | Hydrology

Map 3 | Wetlands



Map 4 | Flood Hazard



Flood Hazard

The data provided in Map 4 is sourced from National Flood Hazard Layer (NFHL). The NFHL is a geospatial database that contains flood hazard data. The Federal Emergency Management Agency (FEMA) provides the flood hazard data to support the National Flood Insurance Program. The City of Big Rapids has a few areas with minimal flood hazard risk, shown in red on the map. Some of these areas are along Mitchell creek near the Clay Cliffs nature area, along or near the banks of the Muskegon River, and in the southeast corner of the Ferris State University campus.

Floodplain Insurance Rate Maps (FIRMS) contain data that show areas that have a higher risk of flooding because of factors like proximity to waterways and flat land. Flood hazard areas are identified on a FIRM are defined as an area that will be inundated by a flood event in any given year. A flood event is commonly identified as a 100-year flood or a 500-year. The phrase "100-year flood" means that there is a 1% chance every year that the area will be flooded. A "500-year flood" means that there is a 0.2% chance every year that the area will be flooded.

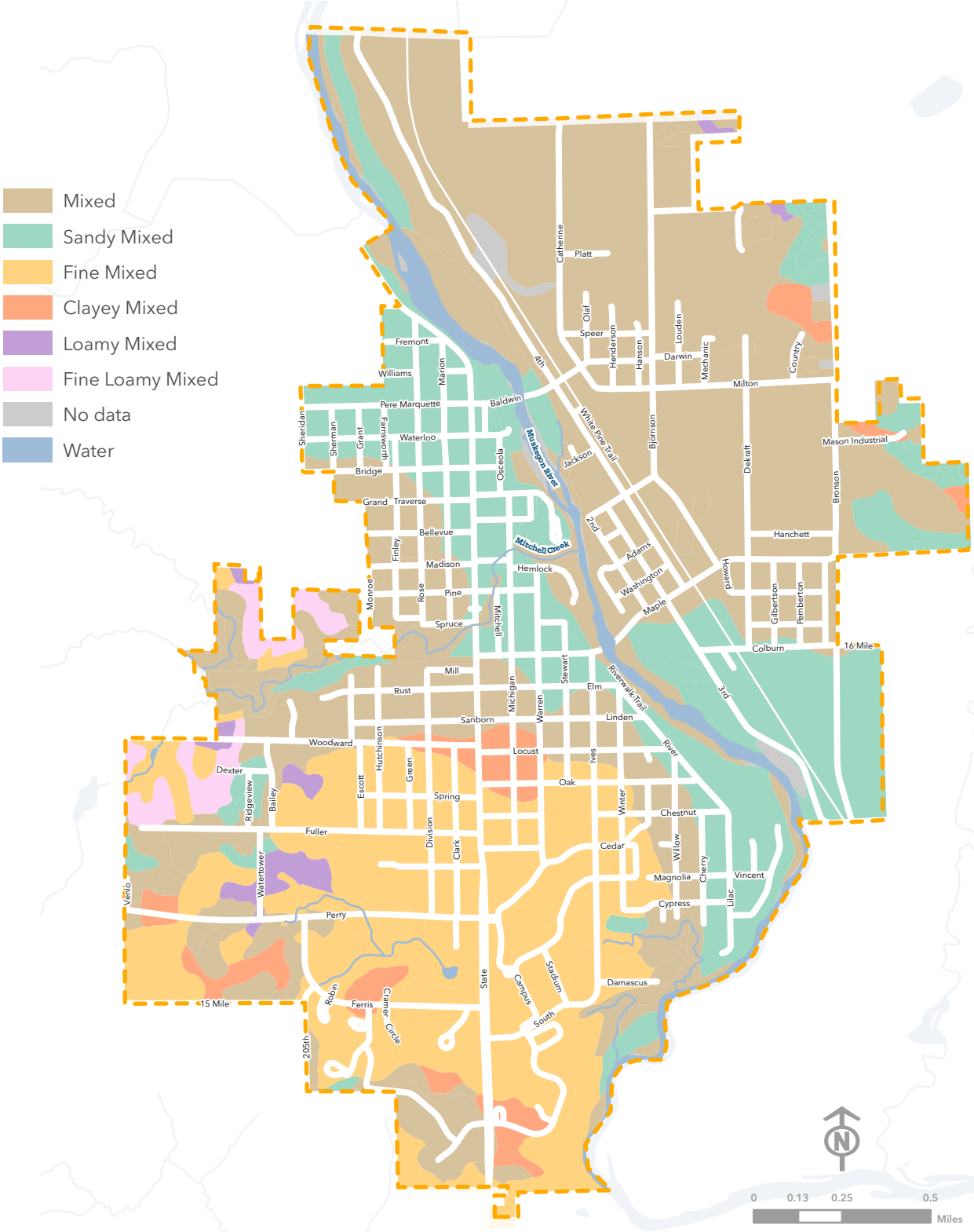
Being in an identified risk area does not guarantee that a particular place will flood, nor does it mean that a place outside the marked areas is entirely safe from flooding. The FIRMs provide guidance based on historical data and known conditions, but cannot predict every flood event, especially in a changing climate. While the FIRMs are useful tools, these and other pieces of information should be used to make informed decisions about flood risk and safety.

Soils

Understanding the soil composition is an important part of land use planning. Different soils can affect storm water run-off, water quality and preservation, soil erosion, and sediment control. Soils provide valuable information about the composition, fertility, and drainage characteristics of the land. Understanding the soil types in an area helps determine the suitability for agriculture, construction, and infrastructure projects. It influences decisions related to land zoning, conservation, and environmental protection. By considering soil properties in a master plan, jurisdictions can ensure responsible land use practices, preserve natural resources, and create sustainable and resilient communities.

The soils and surface geology of Big Rapids were formed thousands of years ago at the end of the last ice age. Glacial retreat left behind a variety of different soils across the Lower Peninsula of Michigan, with sandy and mixed soils being most prevalent around the City. This is illustrated in Map 5, with much of the City resting on sandy and fine-mixed soil types. Scattered areas of clay and loamy-soils can be found further away from the Muskegon River.

Map 5 | Soils


Mixed
Sandy Mixed
Fine Mixed
Clayey Mixed
Loamy Mixed
Fine Loamy Mixed
No data
Water
Mitchell Creek
Muskegon River
White Pine Trail
Riverwalk Trail
Catherine
Platt
Olaf
Speer
Henderson
Hanson
Louden
Darwin
Mechanic
County
Milton
Fremont
Williams
Marion
Baldwin
Pere Marquette
Sheridan
Sherman
Grant
Farnsworth
Waterloo
Bridge
Osceola
Jackson
Bjornson
Dekraft
Mason Industrial
Bronson
Grand Traverse
Bellevue
Finley
Madison
Hemlock
Monroe
Rose
Pine
Spruce
McCall
Adams
Washington
Howard
Maple
Hanchett
Gilbertson
Pemberton
Colburn
16 Mile
Mill
Rust
Michigan
Stewart
Elm
Warren
Linden
Sanborn
3rd
River
Woodward
Hutchinson
Locust
Ives
Dexter
Escott
Green
Oak
Winter
Spring
Ridgeview
Bailey
Chestnut
Fuller
Division
Clark
Cedar
Willow
Cherry
Vincent
Magnolia
Lilac
Cypress
Venio
Watertower
Perry
State
Campus
Stadium
South
Damascus
15 Mile
Robin
Ferris
Cramer Circle
205th
N
0
0.13
0.25
0.5
Miles

Six different soil types can be found in the City of Big Rapids. These soil types are:

- Mixed
- Sandy mixed
- Fine mixed
- Clayey mixed
- Loamy mixed
- Fine loamy mixed

Given the largely sandy and fine-mixed soils, water run-off is less of an issue compared to other places with soils that are less conducive to water infiltration. Fine mixed soil type contains a balanced combination of sand, silt, and clay particles, providing a fertile and well-draining substrate for plant growth. Sandy mixed soils are characterized by a blend of sand, silt, and clay particles, with a higher proportion of sand. This soil type offers good drainage and aeration, making it suitable for certain plant species that thrive in well drained conditions. Clay loam soils, on the other hand, have higher clay content and can be prone to compacting when wet, requiring careful management in construction and development projects. These soils can be seen in small bands largely in the southwestern, central, and northeastern portion of the City.

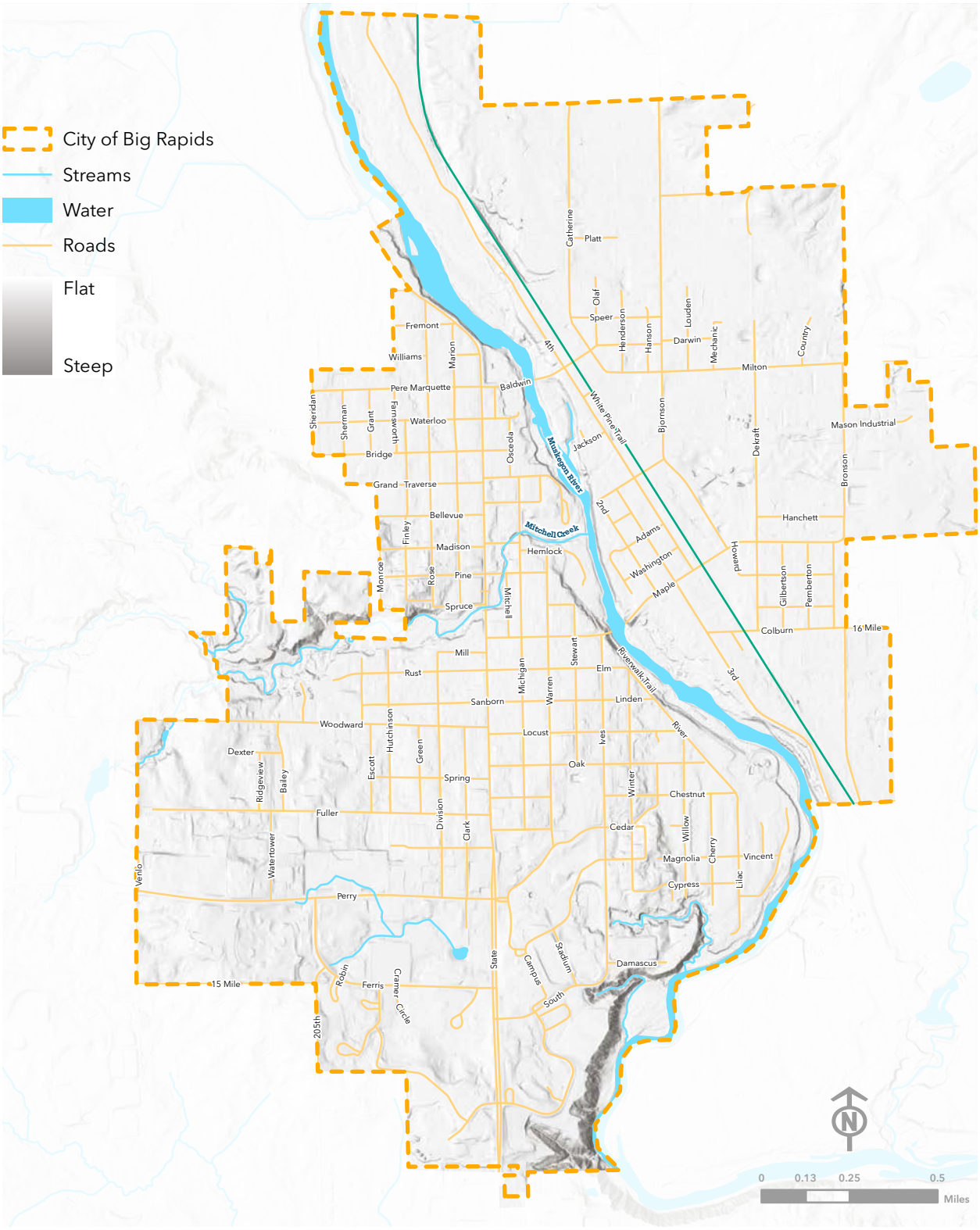
Topography

Consideration of topography is essential during master plan writing as it plays a crucial role in shaping the physical characteristics of a city. The topography of Big Rapids is defined by rolling hills, valleys, and gentle slopes, creating a visually appealing and dynamic environment, as shown in Map 6.

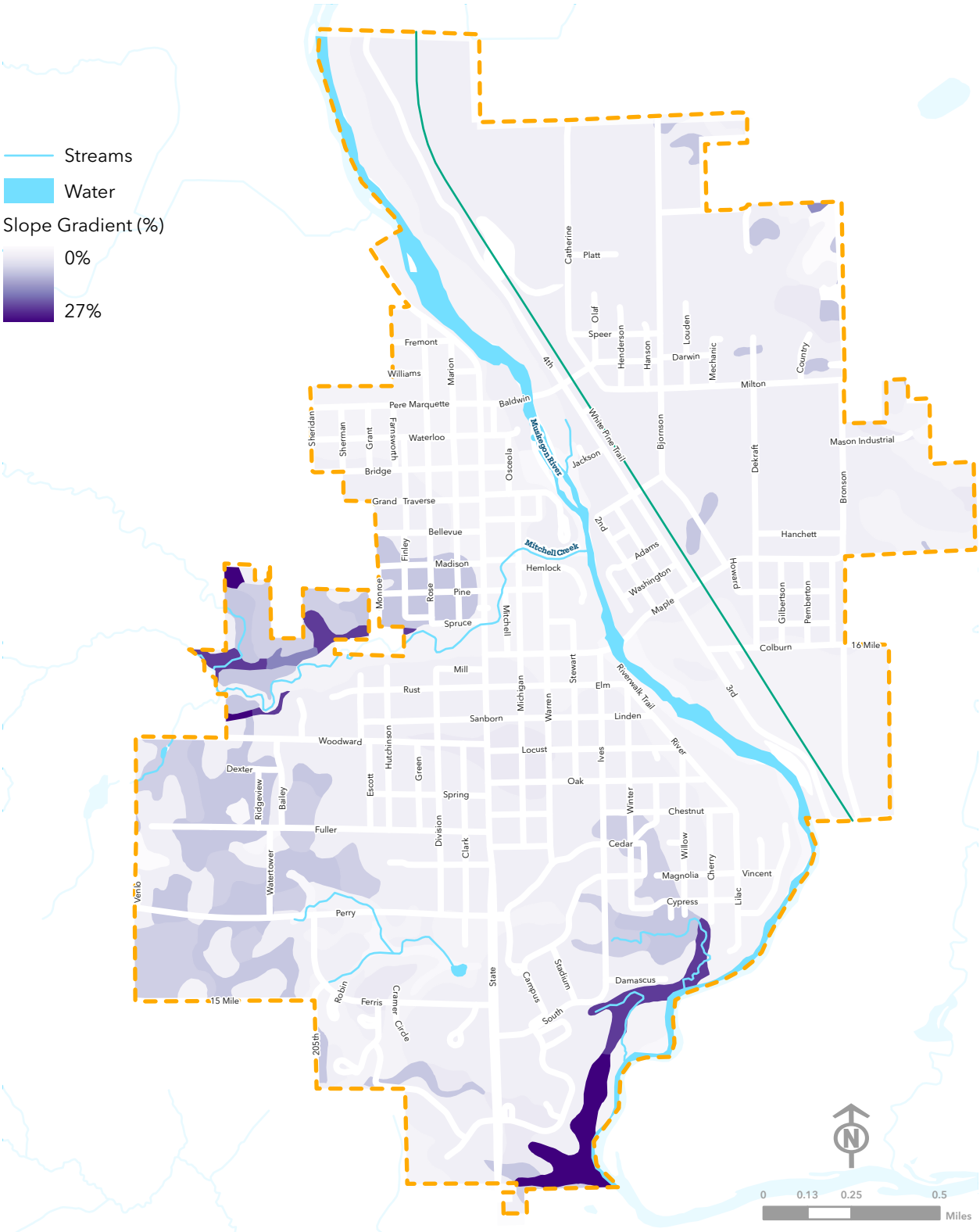
Parts of the western and southern outskirts of Big Rapids, closer to the Muskegon River, display relatively higher slopes and hilly terrain. These elevated areas contribute to the scenic beauty and may present opportunities and challenges for land use planning and development.

Slope gradient as large as 26% can be seen in some areas in the City as shown in Map 7. Slope gradient refers to the steepness or incline of the land surface and is typically measured as the ratio of vertical change (rise) to horizontal distance (run). It provides a quantitative measure of how quickly or gradually the elevation changes over a given distance and is an essential factor in understanding the topography, drainage patterns, and potential erosion risks of an area. Steep slopes next to a river can be common in certain geographic settings. Rivers often cut through the landscape, eroding the surrounding terrain over time. This erosion process can result in the formation of steep slopes or cliffs along the riverbanks. While steep slopes can be found in certain areas, they are not common in Big Rapids. The landscape features a relatively gentle gradient, which contributes to a more level and accessible environment.

Map 6 | Topography



Map 7 | Slope


Streams
Water
Slope Gradient (%)
0%
27%
Catherine
Platt
Olaf
Speer
Henderson
Hanson
Darwin
Louden
Mechanic
Country
Milton
Fremont
Williams
Marion
4th
Baldwin
Pere Marquette
Sheridan
Sherman
Grant
Farnsworth
Waterloo
Bridge
Grand Traverse
Osceola
Muskegon River
Jackson
White Pine Trail
Bjornson
Dekraft
Mason Industrial
Bronson
Bellevue
Finley
Madison
Monroe
Rose
Pine
Spruce
Mitchell Creek
Hemlock
2nd
Adams
Washington
Maple
Howard
Gilbertson
Pemberton
Hanchett
Colburn
16 Mile
Mill
Rust
Michigan
Stewart
Warren
Elm
Riverwalk Trail
Linden
Sanborn
Woodward
Hutchinson
Green
Escott
Locust
Ives
River
Oak
Dexter
Ridgeview
Bailey
Spring
Winter
Chestnut
Fuller
Division
Clark
Cedar
Willow
Cherry
Magnolia
Vincent
Cypress
Lilac
Verlo
Watertower
Perry
Robin
Ferris
Cramer Circle
State
Campus South
Stadium
Damascus
15 Mile
205th
N
0
0.13
0.25
0.5
Miles

Land Cover

Land cover refers to the vegetation and land use present within a particular community. In the case of the City of Big Rapids, the land cover data was obtained from the National Land Cover Dataset (NLCD) prepared by the United States Geological Services (USGS) in 2019. This dataset was generated by analyzing Landsat TM satellite imagery through an automated computer-based process. To ensure accuracy, an assessment of the satellite data was conducted, which involved comparing it to aerial photographs to evaluate the quality of the computer-based interpretation.

The 2019 data was released in May 2021 to provide "explicit and reliable information on the Nation's land cover and land cover change." The information is useful in determining the distribution of vegetation and development patterns and their change over time throughout the City. The 2019 NLCD includes various classes of land cover type based on a modified Anderson level II classification system. While the land cover data may not be entirely accurate, it provides a broader understanding of the overall land cover composition within the City of Big Rapids.

As shown in Map 8, the predominant land cover type in the City of Big Rapids is the Developed land. Developed land is further classified into four categories, open space, low intensity, medium intensity, and high intensity. Developed, Open Space areas consist of a combination of constructed materials and mostly vegetated spaces, such as lawns. Less than 20% of the total cover is composed of impervious surfaces. Examples include large-lot single-family housing units, parks, golf courses, and landscaped areas used for recreation, erosion control, or aesthetics. Developed, Low Intensity areas contain a mix of constructed materials and vegetation, with impervious surfaces accounting for 20% to 49% of the total cover. They typically include single-family housing units.

Developed, Medium Intensity areas also have a blend of constructed materials and vegetation, but impervious surfaces make up 50% to 79% of the total cover. They commonly consist of single-family housing units. Developed, High Intensity areas are highly developed areas have a high concentration of residential or commercial/industrial buildings, such as apartment complexes and row houses. Impervious surfaces account for 80% to 100% of the total cover. The remaining land cover in the City is categorized as Forest or Agricultural/Open Space. Agricultural/Open Space comprises various land cover classes, including shrubland, herbaceous areas, pastures, and cultivated crop lands. The Forest land cover class encompasses both evergreen and deciduous forests.

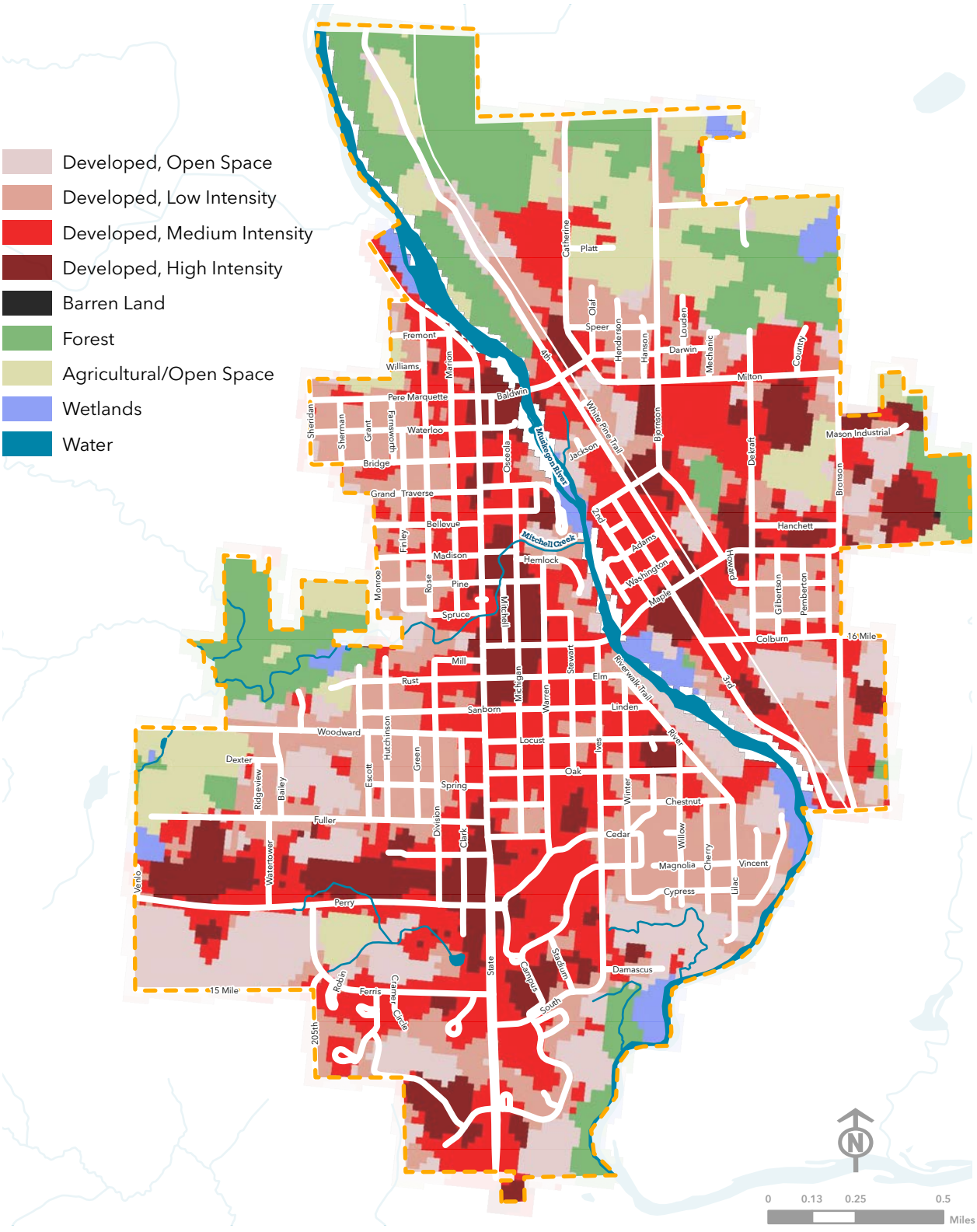
As shown in Table 3.1, the overall land cover of Big Rapids consists of developed areas with a high concentration of residential and commercial/industrial structures. Additionally, there are open spaces characterized by a mixture of constructed materials and vegetation, such as parks, golf courses, and large-lot single-family housing units. The land cover also includes forested areas, comprising both evergreen and deciduous forests, as well as Agricultural/Open Spaces. Overall, the land cover of Big Rapids exhibits a diverse mix of developed, open, forested, and agricultural areas, highlighting the blend of human-made structures, natural vegetation, and cultivated lands within the City.

Table 3.1 | Land Cover Classification

Land Cover Class	Acres	Percent
Developed, Open Space	388.3	13.2%
Developed, Low Intensity	660.3	22.4%
Developed, Medium Intensity	810.6	27.6%
Developed, High Intensity	386.5	13.1%
Agricultural/Open Space	245.5	8.3%
Wetlands	84.1	2.9%
Forest	305.6	10.4%
Barren Land	1.8	0.1%
Open Water	58.5	2.0%

Source: National Land Cover Dataset, 2019.

Map 8 | Land Cover



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Community Facilities

CHAPTER 4 COMMUNITY FACILITIES

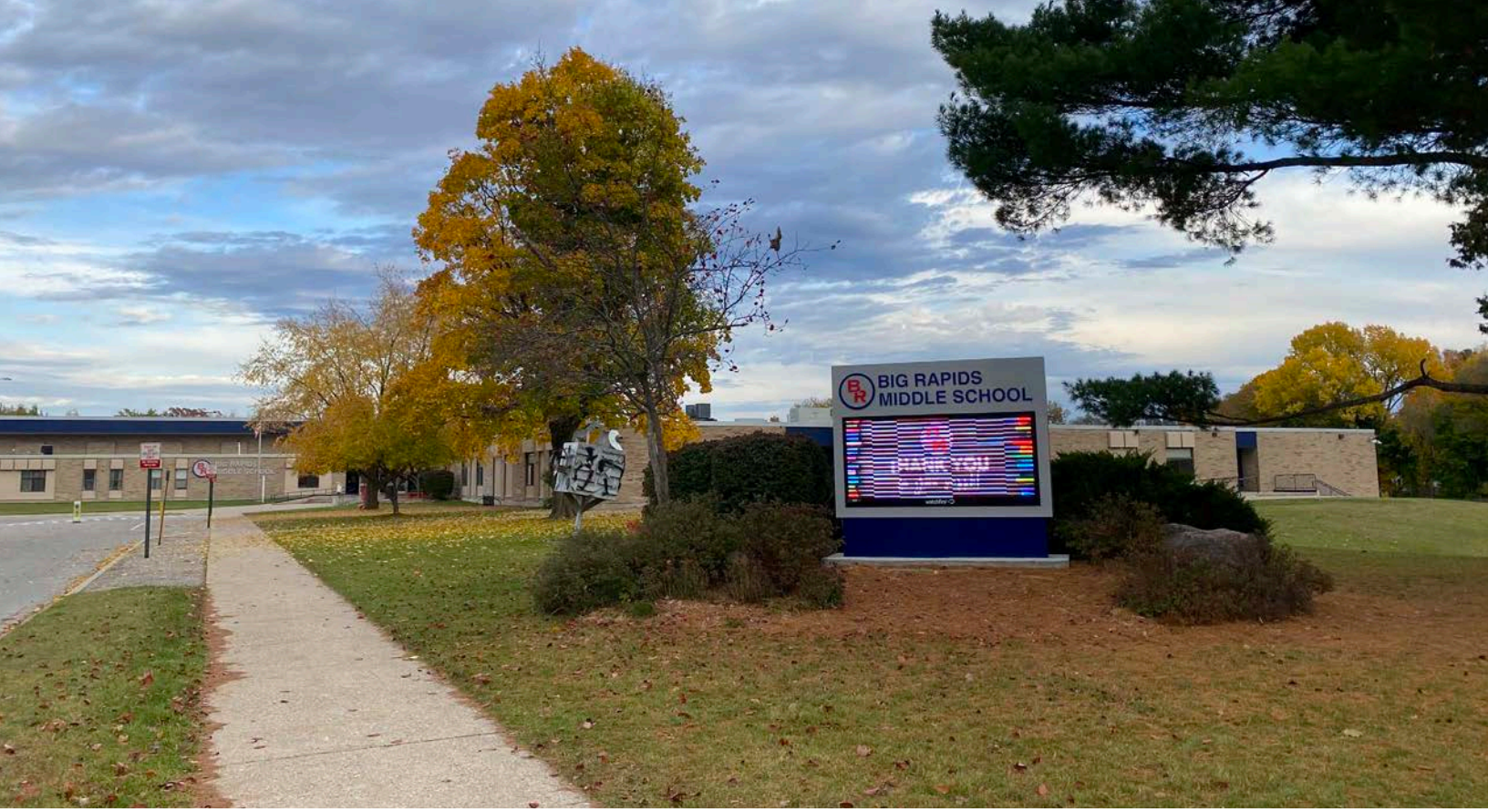
Community facilities play a crucial role in enhancing the quality of life, fostering civic engagement, supporting cultural activities, and instilling a sense of community pride. They also offer local spaces for interaction, education, and community development. When considering planned growth, concentrating development in desirable locations ensures that these facilities remain accessible and meet the needs of the residents.

This chapter provides an overview of the community facilities, services, and local infrastructure found in the City of Big Rapids.

Public Schools

Higher Education

Having an institution of higher education can foster economic development and regional growth. The City of Big Rapids is home to Ferris State University which occupies 468.8 acres of land within city limits. The University was home to 10,072 students in the Fall of 2022. Of these students, nearly 7,301 live on the City of Big Rapids main campus. Physical infrastructure on campus includes classrooms, offices, residence halls, maintenance facilities, and other support facilities. The University adds more diversity to the City as it attracts students from all over the State, country, and world.



K–12 Schools

The City of Big Rapids has two school districts, Big Rapids Public Schools, and Crossroads Charter Academy. Crossroads Charter Academy consists of an elementary school (K-5) and a middle/high school (6-12).

The Big Rapids Public School system consists of five schools: three elementary schools, a middle school, and a high school. Table 4.1 lists the name and the student count for each school. There's a total of 2,102 students in the school system. The Big Rapids Public School facilities are used for some of the recreation programs, such as women's and coed volleyball, open gym basketball, senior fitness, and youth tennis.

Table 4.1 | **Public School System Statistics, 2023-2024**

School Name	Grade Span	Student Count
Eastwood Elementary School	Preschool-K	215
Brookside Elementary School	1-4	342
Riverview Elementary School	1-4	321
Big Rapids Middle School	5-8	618
Big Rapids High School	9-12	747
Crossroads Charter Academy	K-5	146
Crossroads Charter Academy	6-12	144

Source: MI School Data 2023-2024.

Parks & Recreation

The City of Big Rapids has a large number of parks, as shown on Map 9. These spaces include several parks and trails that are beloved by locals. The following is an overview of the City's park system.

Anna Howard Shaw Park (Mini Park)

This park is located on South Michigan Avenue beside the Big Rapids Community Library. The park features a memorial sculpture dedicated to Anna Howard Shaw and has a newly developed play area. The park includes a walking path and interpretive signs geared towards children's literacy and nature.

Holland Park (Mini Park)

Located on State Street, Holland Park contains a granite veterans memorial displaying the insignias of each of the United States Armed Forces. The park is used as a pedestrian rest area that includes a grass lawn, benches, a water fountain, and a trash receptacle.

Linden Street Park (Mini Park)

Linden Street Park is located at the corner of Gilbertson and Linden Street. The mini-park features a play area for children and a small area for foliage.

Hanchett Park

Located off of North State Street, the park offers access to the Muskegon River and includes a pavilion, access to the Riverwalk, and fishing opportunities.

Pocket Park (Mini Park)

Pocket Park is located between Horizon Bank and The Raven Brewing & BBQ in downtown Big Rapids. The park serves as a resting place surrounded by beautiful landscaping, picnic tables, art installations, and has been the location for free summer concerts.

Rotary Park (Mini Park)

Rotary Park is located between the Corewell Health Big Rapids Hospital and River Street Park. The parks feature the Rotary Gazebo, a picnic area, and an outdoor fitness court with several workout spaces.

Osceola Park (Mini Park)

Located off Osceola Avenue, this park offers access to the Riverwalk trail and provides a gazebo with a picnic table.

Industrial Park

Industrial Park is located on Catherine Street and Milton Avenue and consists of two softball fields and soccer fields. It's adjacent to the White Pine Trail.

Swede Hill Park

Swede Hill Park is located on the northeast side of the City on Baldwin Street and is used for fishing and picnicking. The park features a historic marker dedicated to the early Swedish settlers. The park provides access to the Riverwalk and the Muskegon River.

Vogel Field

Vogel Field is located south of Colburn Avenue on the west side of Bronson Avenue and consists of two ball fields, picnic tables, and playground equipment

Clay Cliffs Nature Area

Clay Cliffs spans roughly 75 acres and features unimproved nature trails, with approximately 6 acres situated within Big Rapids Township..

Charles E Fairman Pool

Located on Hutchinson Street, the community pool is popular in the summer by residents. The facility includes a swimming pool, picnic tables, grills, changing rooms, and restrooms.

Hemlock Park

Hemlock Park is located at the east end of Hemlock Street and Warren Avenue. This park offers a wide variety of activities. The park includes access to the Riverwalk, tennis courts, playscape, basketball courts, softball field, picnic tables, a bandshell, splash pad, pickleball courts, and a fishing area.

Mitchell Creek

Located at the corner of Pine and State Streets, Mitchell Creek Park includes picnic tables, restrooms, walking paths tables, and a fishing area with access to Mitchell Creek.

Northend Riverside Park

Northend Riverside Park is located north of Fourth Avenue. The park includes, two large pavilions, picnic areas, play area, hiking area, nature trails, sand volleyball, and cross-country skiing.

Supervisors Park

Supervisor's Park consists of vacant undeveloped park land near the Muskegon River.

Depot Park

Depot Park is located adjacent to the White Pine Trail and the former Train Deport Building. The park also serves as a trailhead for the White Pine Trail. Amenities will include restrooms, a bike repair station, a pavilion and rest area, trailer parking, and commissioned artwork.

River Street Park

River Street Park is located between 300 and 600 blocks of River Street. The park offers athletic fields that are used by local soccer and Little League organizations. Residents of the surrounding residential neighborhoods are the primary users of the other park offerings which includes the following facilities:

Riverwalk

Riverwalk is a linear park that runs on the east and west sides of the Muskegon River. It also connects with the state's White Pine Trail that runs through the City. The Riverwalk is 3.29 miles.

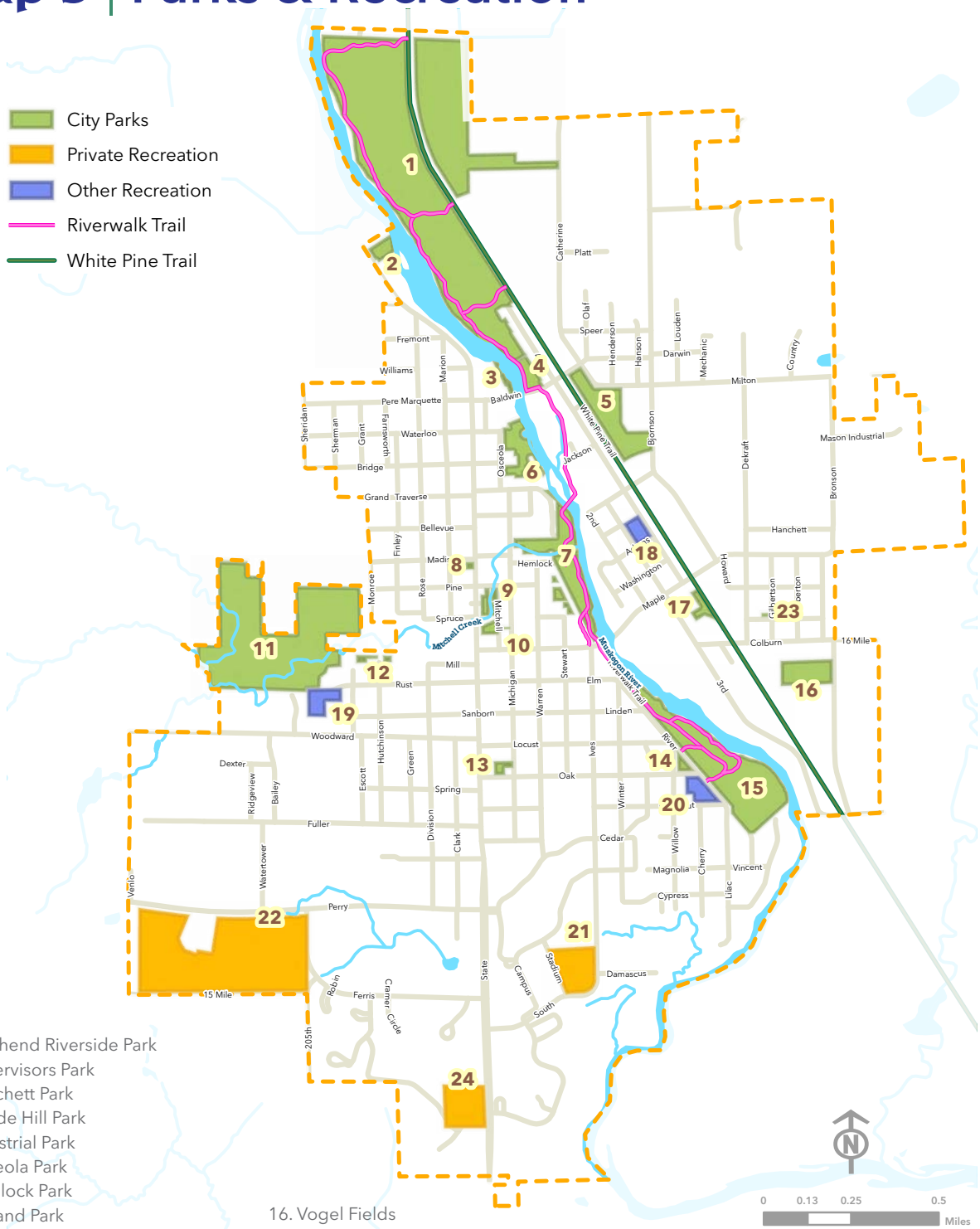
Win Kellum Field

Win Kellum Ball Field is located off of River Street next to River Street Park.

Brutus Dog Park

The Brutus Dog Park is located within River Street Park. It includes two fenced-in sections for smaller/senior dogs and large/active dogs. The park also offers dog waste bags, water spouts, and trash receptacles.

Map 9 | Parks & Recreation



1. Northend Riverside Park
2. Supervisors Park
3. Hanchett Park
4. Swede Hill Park
5. Industrial Park
6. Osceola Park
7. Hemlock Park
8. Holland Park
9. Mitchell Creek Park
10. Pocket Park
11. Clay Cliffs Natural Area
12. Charles E Fairman Community Pool
13. Anna Howard Shaw Memorial Park
14. Rotary Park
15. River Street Park
16. Vogel Fields
17. Depot Park
18. Eastwoood Elementary Playground/ Baseball
19. Brookside Elementary Playground/ Basketball
20. Riverview Elementary Playground/ Baseball
21. FSU Student Recreation Center
22. FSU Katke Golf Course
23. Linden Street Park
24. R.L. Ewigleben Sports Complex

Other Recreation Facilities

Ferris State University has facilities located throughout the City of Big Rapids and allows community members access to some assets. The University's facilities include:

- Racquetball courts
- Fitness center
- Indoor and outdoor tennis courts
- Two ice rinks
- Indoor pool
- Climbing wall
- Indoor and outdoor track
- Disc golf course
- Basketball courts
- Football field
- 18-hole golf course (Katke Golf Course)

Recreation opportunities are also located at the various Big Rapids Public School facilities including soccer fields, playgrounds, and gymnasiums.

Public Safety Services and Facilities

Police, fire, and emergency medical services are necessary for any community, as they protect the general safety and welfare and provide medical treatment when needed. The adequate provision of public safety services influences population density and the distribution of residential, commercial, and industrial zones in the City. A safer environment fosters a sense of security and well-being among residents, leading to increased community satisfaction and engagement.

Police

The City of Big Rapids is serviced by the Big Rapids Department of Public Safety Police Division, located at 435 N Michigan Avenue. The police division consists of 18 uniformed officers who work 12-hour patrol shifts, and a specialty division that includes a detective, school resource officer, crime prevention and community relations officer, and computer crimes investigator, in addition we have two civilian staff members. The Police department is responsible for 24-hour police service, and are committed to work together with the community to provide a safe place for people to live, work, learn, and visit. The Department has recently obtained Accreditation status from the Michigan Law Enforcement Accreditation Commission

Ferris State University has a police division through the University's Department of Public Safety (DPS), located at 1319 Cramer Circle. This division is responsible for the Big Rapids campus safety at the University. The Ferris State's Public Safety Department employs 10 police officers, certified by the Michigan Commission of Law Enforcement Standards. The Department's jurisdiction is Mecosta County, however, the University Campus and adjacent streets are the primary focus. Ferris DPS, the City of Big Rapids, the Mecosta County Sherriff's Department, and the Michigan State Police have a mutual aid agreement and assist each other when requested.

Fire

The City of Big Rapids is serviced by the Big Rapids Department of Public Safety Fire Division in providing professional fire suppression, rescue, and emergency medical services to the city and surrounding areas. The Fire Division is a combination of full-time, part-time, and part-paid staff members. The Fire Division is overseen by the City of Big Rapids Fire Chief. There are three shifts of full-time staff members, with each shift containing one captain and two firefighters. Each shift works a 24-hour shift, starting at 7 a.m. and working until 7 a.m. the following day, providing continuous, full-time coverage. The Fire Division's part-time personnel is utilized on an as needed basis such as large-scale incidents, training, educational presentations, etc. The part time staff consists of 17 part-time paid firefighters. The Big Rapids Department of Public Safety Fire Division is licensed and responds to EMS incidents as an emergency medical technician- basic level. The fire division responds to approximately 1,300 calls for service on an annual basis.

The fire station is located in the same complex as the police department on 435 N Michigan Avenue. The Fire Division also provides the following services:

- HazMat Operations
- River Rescue and Dive Team Members
- Fire Investigation
- Fire Inspections

- Technical Rope Rescue
- Tactical Emergency Casualty Care (TECC)
- Bleeding Control Public Education
- Fire Prevention and Education
- CPR and First Aid Training

The Fire Division of the Big Rapids Department of Public Safety delivers quality fire, rescue, and EMS services across an extensive coverage region. In addition to the City of Big Rapids the fire division contracts medical and fire coverage for Green Charter Township, and Barton and Norwich Townships in Newaygo County. Additionally, it extends medical services to the western portion of Colfax Township and Grant Townships, while also serving as an automatic mutual aid partner to Colfax, Big Rapids Township, and Mecosta Township fire departments.

Utilities

Water Treatment Plant

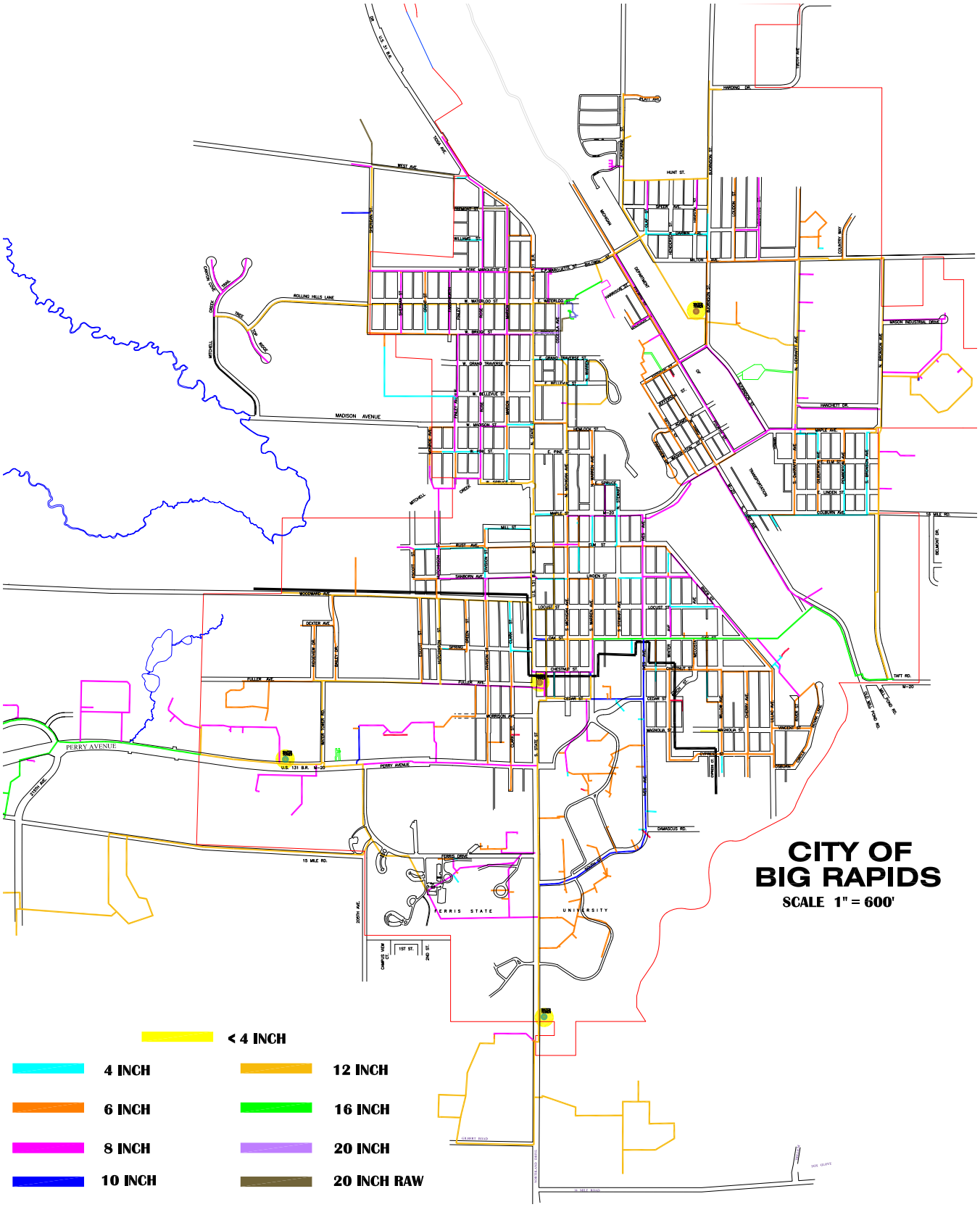
The Big Rapids Water Treatment Plant is responsible for the maintenance of clean drinking water for the City. The department is also responsible for the metering and maintenance of all water lines throughout the City of Big Rapids. Map 10 shows the layout of City's water system and the pipe size as of early 2024.

The water is withdrawn by one or more of the four wells, which have a combined capacity of 3,750 gallons per minute. The water is transmitted to the water treatment plant where the water is settled, disinfected, and filtered before being pumped to the distribution system. Trace amounts of fluoride are added to reduce dental cavities. Plant staff routinely monitors and tests the water to ensure that it meets all federal and state drinking water standards.

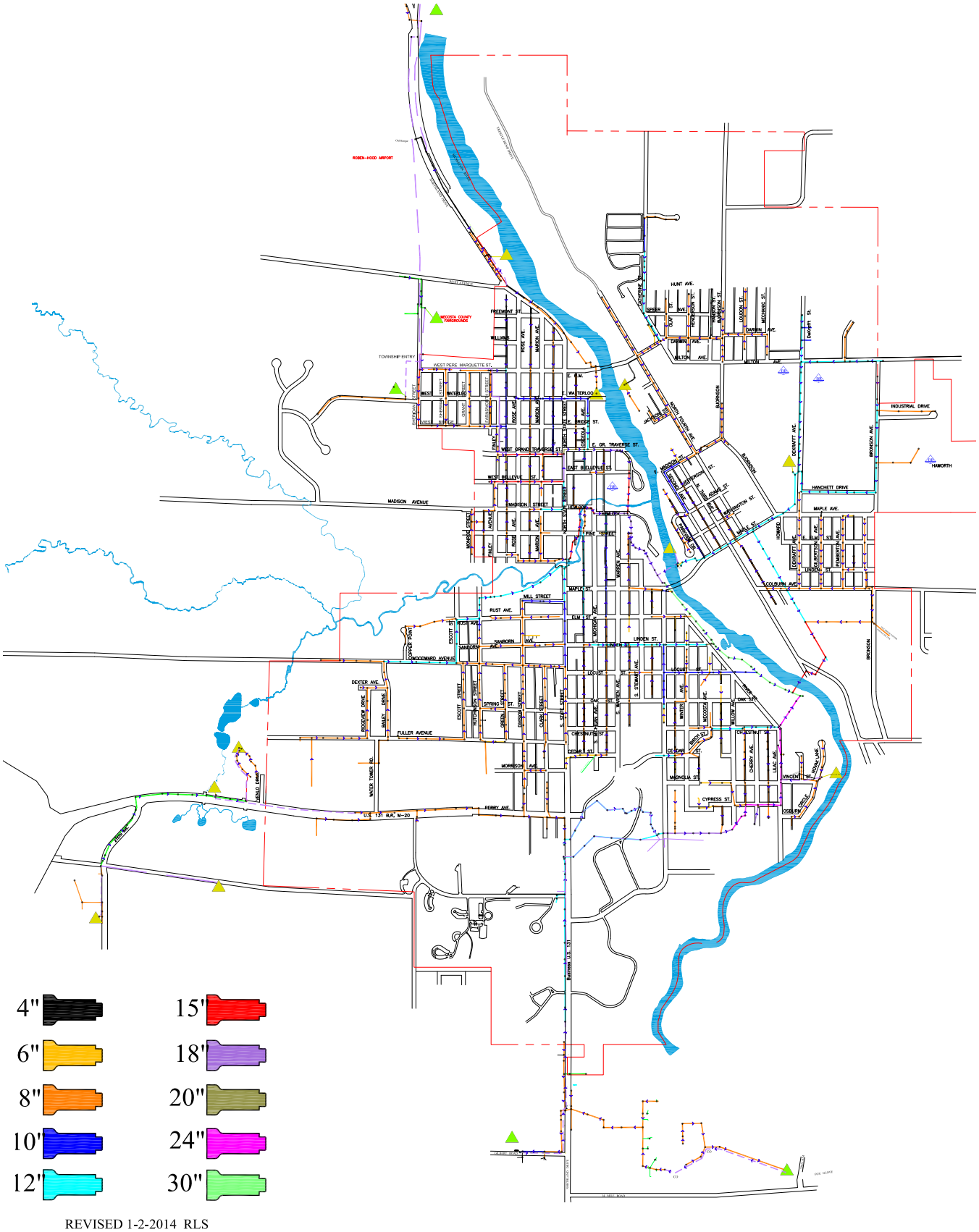
Wastewater Treatment Plant

The City of Big Rapids owns and operates the Publicly-Owned Treatment Works, known as the Wastewater Treatment Plant (WWTP). The existing system and pipe size as of early 2024 is shown on Map 11. The WWTP is designed to effectively treat a maximum hydraulic flow of 2.4 million gallons per day (2.4 MGD). Although the WWTP can handle this "hydraulic" water load, including temporarily-higher flow spikes, continuous treatment is practical with typical daily flows of 1.0 to 1.2 MGD. Plant operation provides preliminary treatment, biological activated sludge treatment, reduction of solids, phosphorus and ammonia, and final effluent disinfection. Other processes include aerobic sludge digestion, sludge de-watering, stabilization, storage, and eventual land-application of stabilized biosolids.

Map 10 | Water System



Map 11 | Sanitary System



The Big Rapids Wastewater Collection System and Treatment Plant works to protect public health, preserves the environment, and enhance the quality of life for area residents. The entire Wastewater system serves an 11 square-mile area, which encompasses three political jurisdictions: City of Big Rapids, Big Rapids Township, and Green Charter Township. Each jurisdiction owns and operates their own wastewater collection system, which includes gravity sewers, pumping stations, and force mains.

Internet

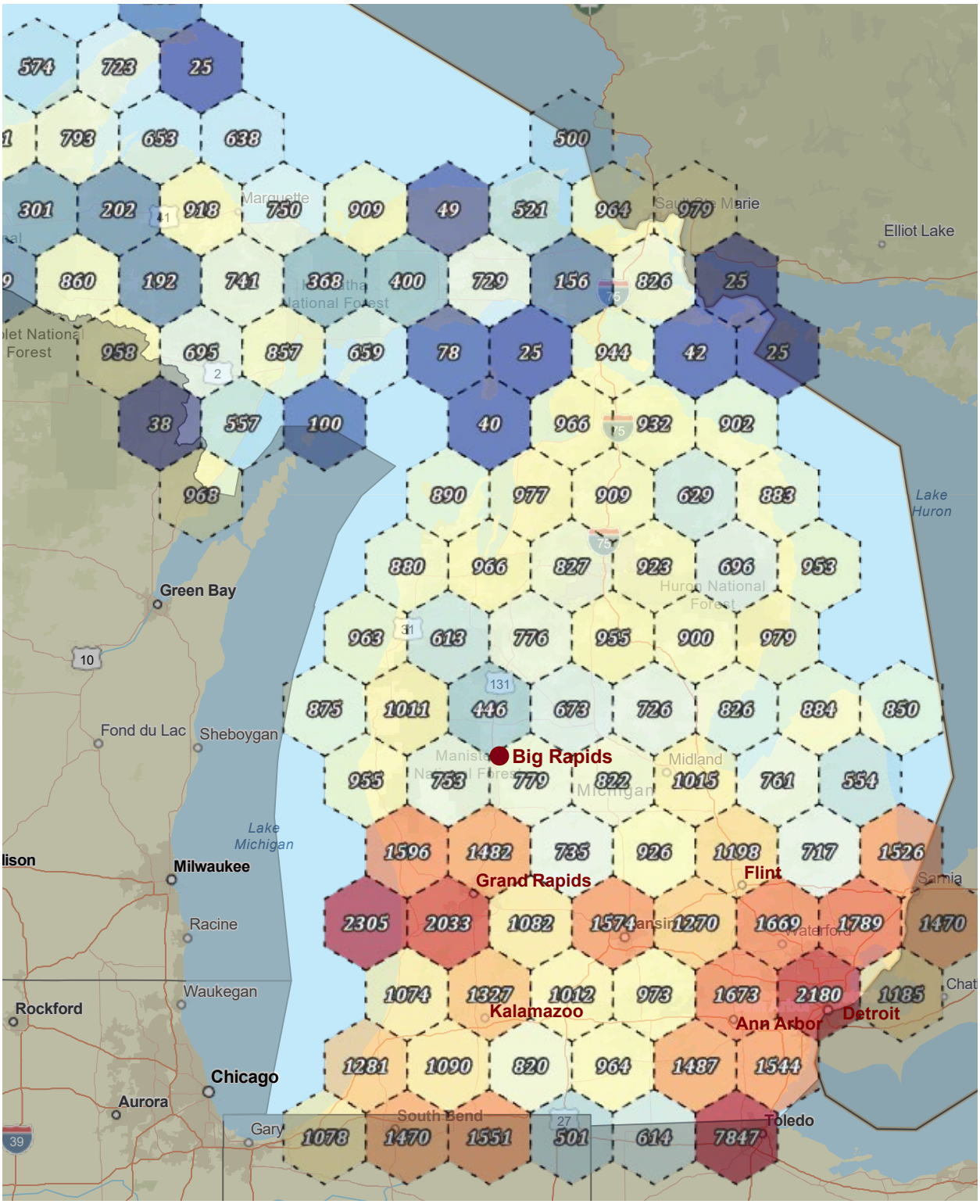
Lack of broadband internet access and affordability are issues in Michigan and across the country, especially outside of large urban areas and where there is persistent poverty. Building and maintaining the necessary broadband infrastructure in non-urban areas can be economically challenging. Low population density and vast geographic distances make it less cost-effective for internet service providers to invest in the infrastructure needed to deliver high-speed internet.

The information in this section is sourced from Connected Nation (Michigan), a non-profit organization dedicated to assisting communities. They operate at the community, state, and federal levels to enhance access, adoption, and utilization of broadband services for all individuals. A download speed of at least 100M and an upload speed of 10M is considered good. Several devices can stream videos using different platforms simultaneously. As of the Maximum Advertised Residential Speeds Map released in September 2021, the availability of household internet speeds in Mecosta County was reported as follows (measured in megabytes per second (M) and gigabytes per second (G), download speed/upload speed):

- 10M/1M – 99.97% (of total households)
- 25M/3M – 97.01%
- 100M/10M – 95.15%
- 1 G – 25.12%

The City of Big Rapids was mostly shown in the at least 100M/10M service area. As shown in Map 13, the mean download speed for most areas in the City was 1000Mbps. (Map 12 shows areas across the state of Michigan for a comparison.) No areas within the City were listed in the unserved/underserved list of residential or mixed use locations. Internet and cable services in the City are provided by major providers such as Spectrum (cable), Point Broadband (fiber internet), HughesNet (satellite), Viacom (satellite), and Starlink (satellite). The City of Big Rapids and the surrounding townships were also included in the Broadband Infrastructure Program (BIP) 2021-awarded service areas. The Broadband Infrastructure Program is a $288 million broadband deployment program directed to partnerships between a state, or one or more political subdivisions of a state, and providers of fixed broadband service to support broadband infrastructure deployment to areas lacking broadband, especially rural areas. The service area was included in the Michigan Open Optical

Map 12 | Broadband Map (State)



Mean Download Speed per Bin (Mbps)

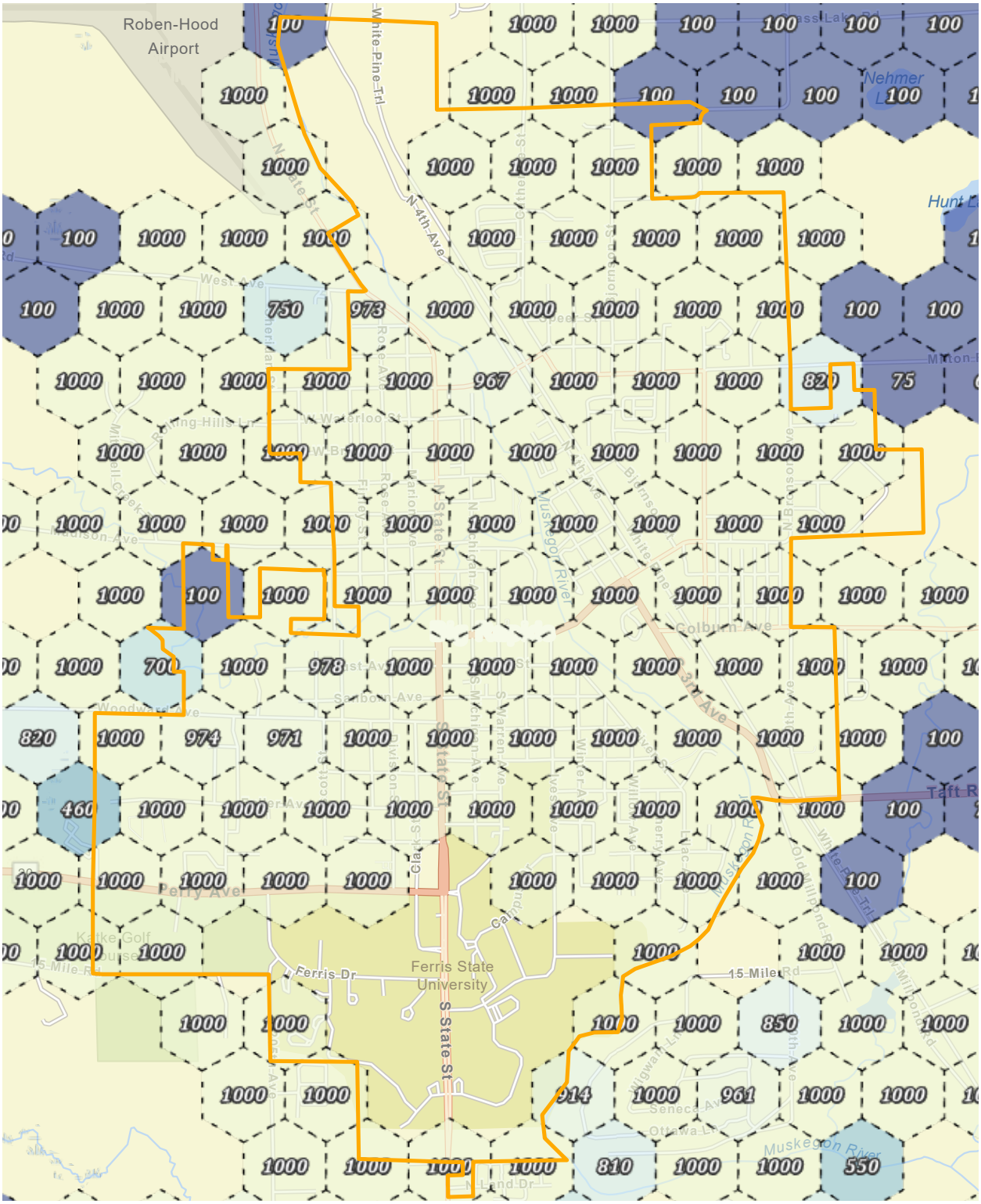
25 2506

1:4,622,324

0 25 50 100 mi

0 45 90 180 km

Map 13 | Broadband Map (City)



0 0.23 0.45 0.9 mi
0 0.35 0.7 1.4 km

Network (MOON-Light) project that hopes to provide affordable, reliable high-speed internet to 17,000 unserved households in 74 counties across the state in partnership with Michigan State University.

Ferris State University has a wireless network that is accessible to faculty, staff, and students. The Big Rapids campus of FSU has a high-speed network that provides internet by wired connection in offices and on-campus housing, as well as wireless networking across a majority of the campus.

Transportation

Roads

The City of Big Rapids is located east of US-131, the highway that runs north-south in the western part of the state. M-20 traverses the City, running mostly as an east-west route through the heart of Downtown and along Perry Avenue, as shown on Map 14. The City's roads are primarily laid out in a grid network making moving around the community convenient. Many of the neighborhoods are easy to access and navigate because they were designed in a north-to-south, east-to-west grid system.

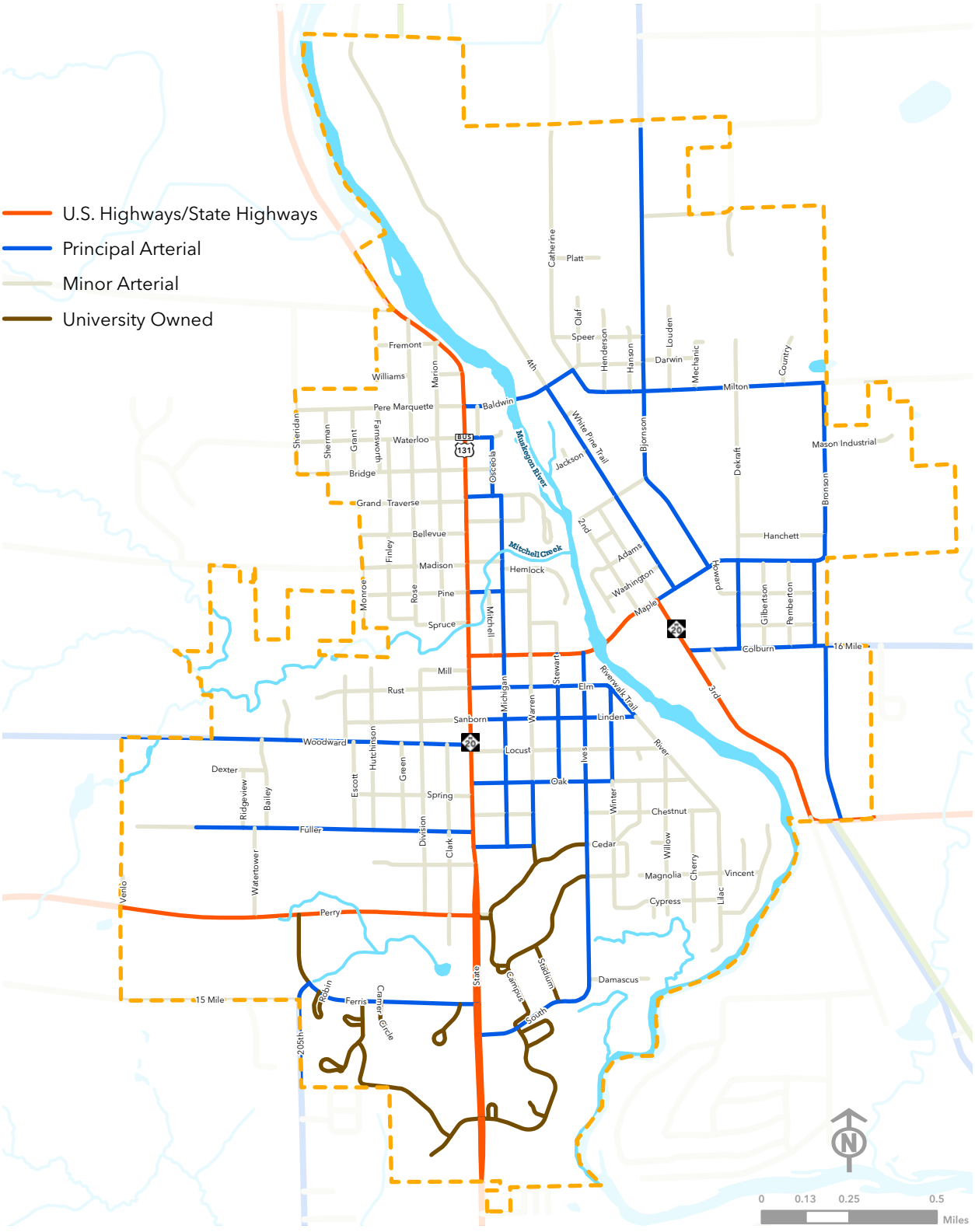
Baldwin Street and Maple Street are the two roads that contain bridges crossing the Muskegon River, connecting the two sides of the City. Both bridges are designed for multi-modal traffic and include a sidewalk. The Baldwin Street Bridge also has an on-street bike lane.

The historic downtown runs along Maple Street (M-20) and Michigan Avenue. Business US-131 was routed along State Street and onto Perry Avenue in the 1950's to bypass downtown. Vehicular traffic moves more quickly through the City, but diverting traffic away from the City's central business district negatively impacted businesses for decades. State Street continues to be a barrier for pedestrians to safely cross and is a common corridor for crashes. Perry Avenue is a 5-lane road that carries thousands of vehicles daily. A sidewalk is located within the right of way on the north side of the street. The corridor provides the connection between US-131 and the City, and contains many popular suburban strip mall-style commercial developments.

Traffic Counts

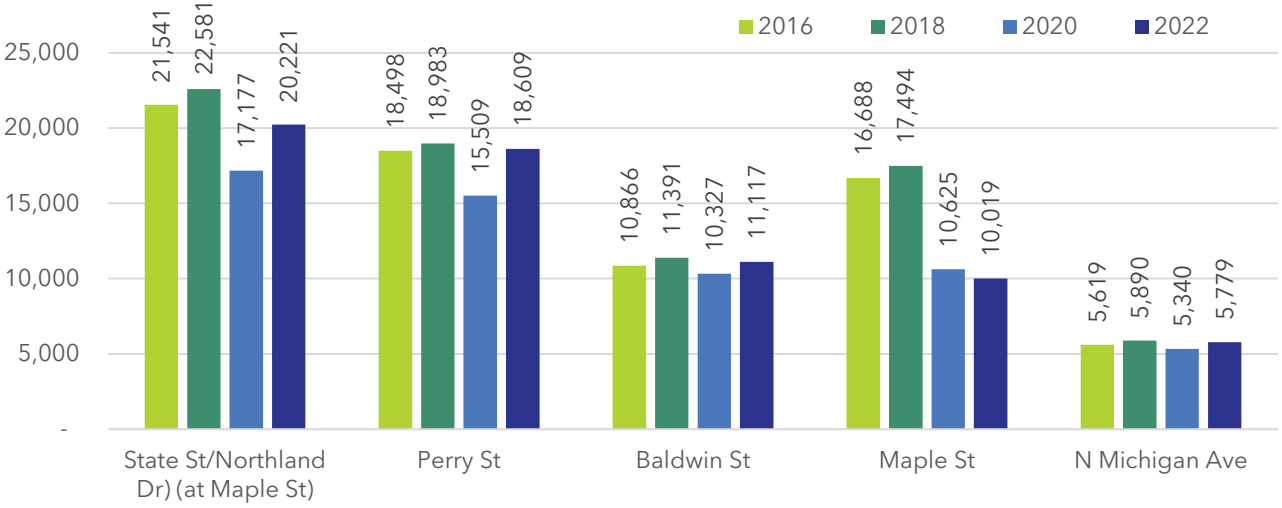
Vehicular traffic counts provide data on the number of vehicles that are using a corridor on a daily basis. This information is useful when planning and designing a transportation system. As shown in Map 15, the highest traffic counts can be seen on State Street/Perry Avenue (U.S. 131 Business Route/M-20), Maple Street, and S 3rd Avenue. It is important to note that local events, construction projects, and

Map 14 | Road Network



changes in the local economy can impact the traffic counts for a community. Figure 4.1 shows the increase in traffic counts from 2016 to 2022. State Street/Northland Drive, Perry Avenue, Baldwin Street, Maple Street, and North Michigan Avenue have had fluctuations in traffic counts since 2016. All locations increased from 2016 – 2018. Traffic counts significantly dipped in 2020 due to the impacts of the COVID-19

Table 4.1 | Traffic Counts 2016-2022



Source: MDOT, Transportation Data Management System

pandemic had on the number of people commuting.

Most locations saw a rise in traffic count data in 2022 when compared to the data in 2020. However, the 2022 traffic count data are all lower than 2018 data. This may be impacted by the decline in Ferris State University enrollment during this period, meaning that there were fewer people living in the City and driving on the roads. Map 16 shows the change in traffic volumes from 2016 – 2021.

Ferris State University

The intersections of Perry Avenue and State Street serve as the primary entry point to the campus. Originating from US-131, Perry Avenue provides direct vehicular access to the campus from the west. Driving from the north or south, State Street leads directly to the main campus. The Muskegon River forms a natural barrier to the east.

Pedestrian sidewalks connect much of the campus and exceed over six miles in length. Many sidewalk paths cross roads and some of these intersections have intense levels of traffic at peak times making crossing difficult. State Street, which is owned by the State of Michigan, physically divides the campus, making pedestrian crossing challenging.

Nonmotorized Infrastructure

Nonmotorized infrastructure is vital in transportation as it promotes sustainable, healthy, and accessible mobility options, reducing reliance on motor vehicles. Dedicated nonmotorized facilities like sidewalks, trails, and bike lanes enhance safety, encourage physical activity, and foster community connectivity, contributing to a more inclusive and environmentally friendly urban environment. Other modes of transportation are shown on Map 17.

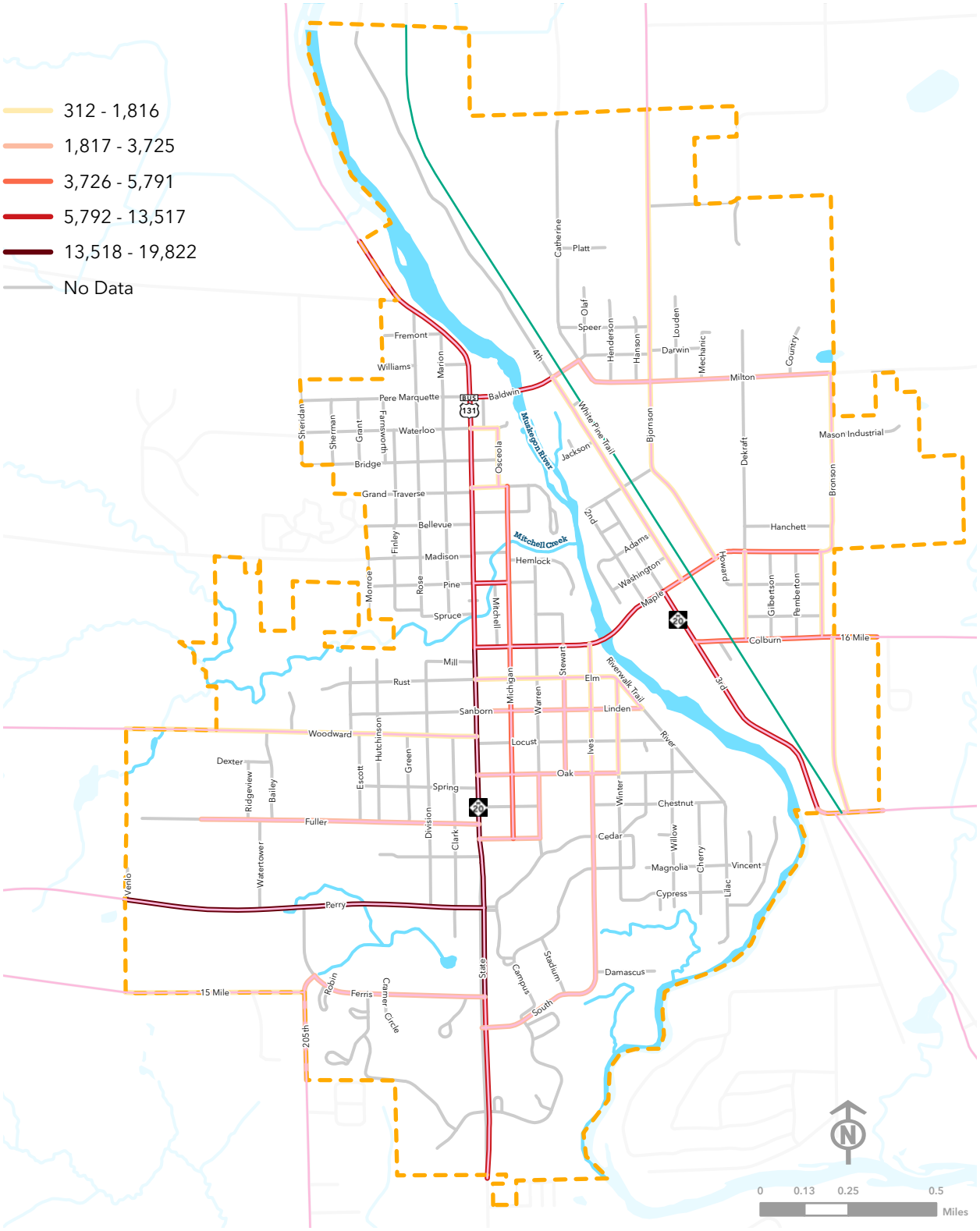
Sidewalks

The City has an extensive connected sidewalk system that radiates through the City, along most streets, and into many neighborhoods. The sidewalks are used daily and seen as an important asset provided by the City. Residents of all ages use them for exercise, recreation, and transportation.

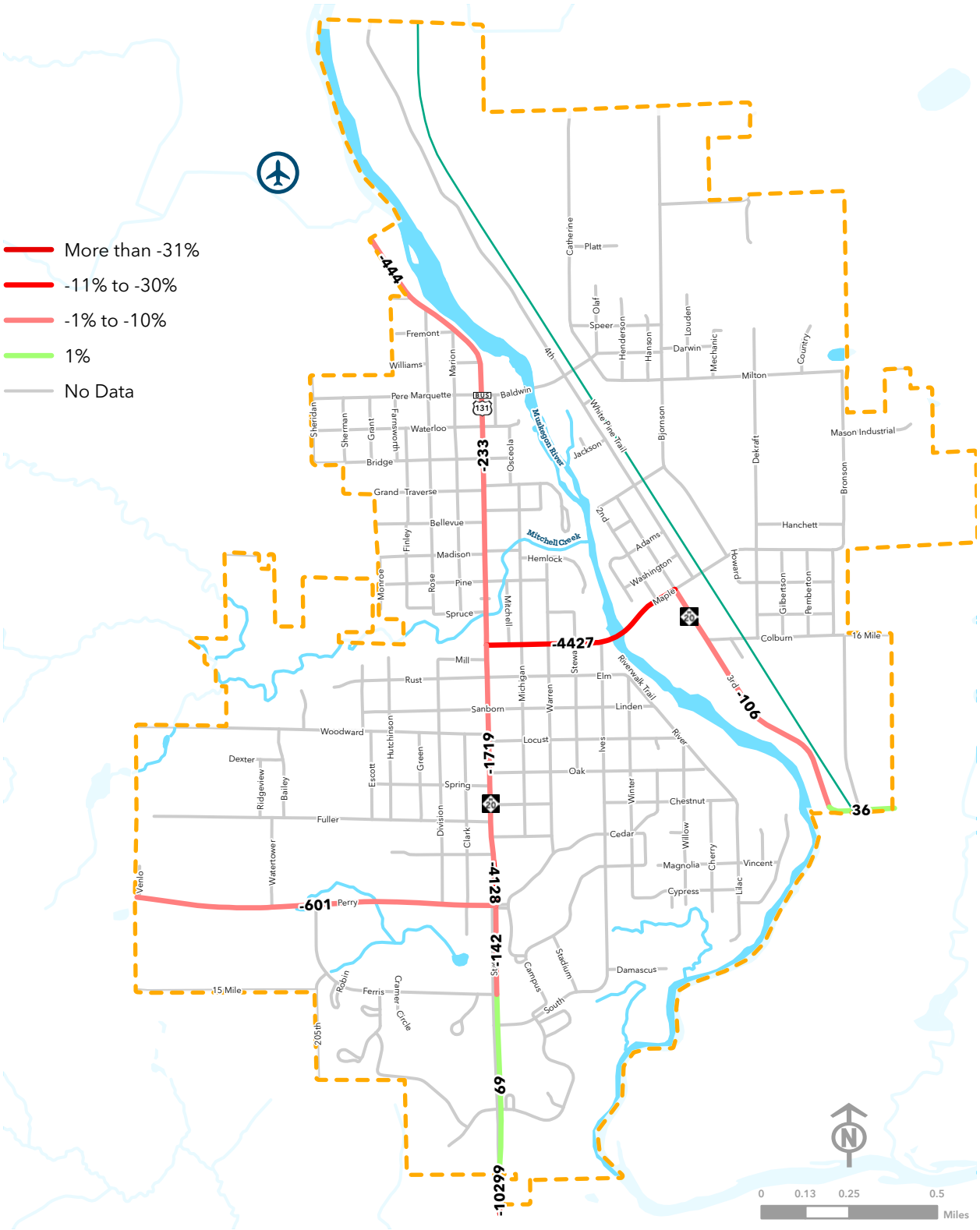
The 2019 Big Rapids Bike and Pedestrian Plan produced by a group of FSU students for a class project analyzed the 2012 City of Big Rapids Bicycle and Pedestrian Plan. In the 2019 project, a sidewalk inventory was completed to identify network gaps and surface conditions. The analysis concluded that the sidewalks in Downtown are in good condition but the quality and number of gaps increase farther away from downtown, specifically in neighborhoods and along thoroughfares on the east side of Muskegon River, in the neighborhood on the southeast side, and the areas near the northwestern boundary of the City.

The City is working on addressing some of these gaps by installing new sidewalks in some locations.

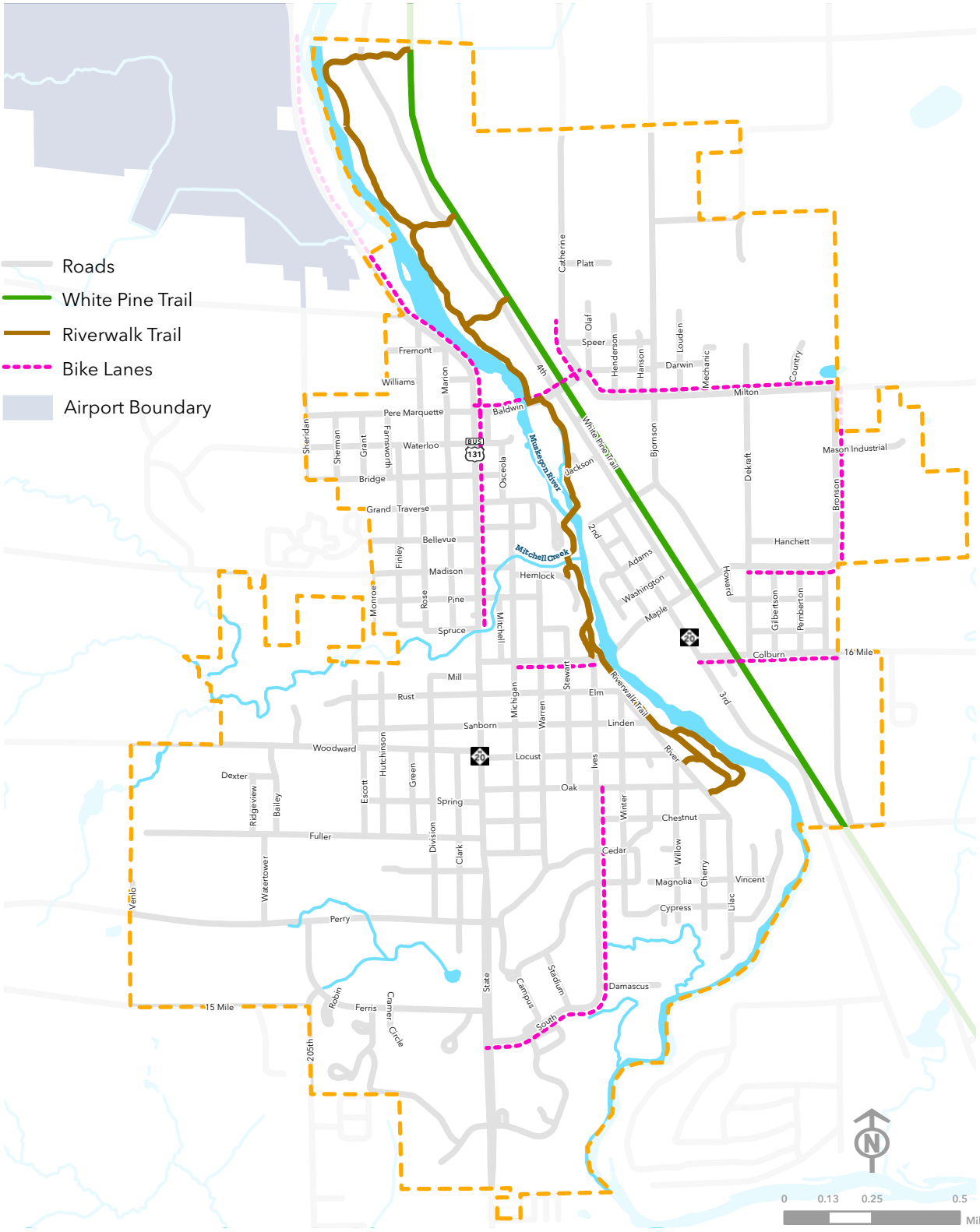
Map 15 | Traffic Counts 2021



Map 16 | Traffic Counts Change (2016-2021)



Map 17 | Transportation



Bike Lanes

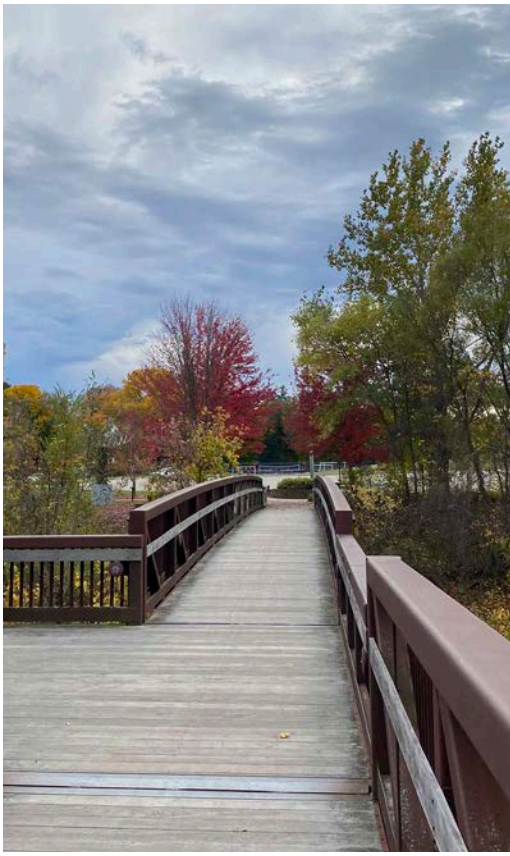
Bike lanes are not as prevalent as sidewalks in the City. According to the 2019 Big Rapids Bike and Pedestrian Plan, bikes lanes only exist in the north end of the City on Northland Drive/State Street, on Baldwin Street, and leading up to Catherine Street.

Trails

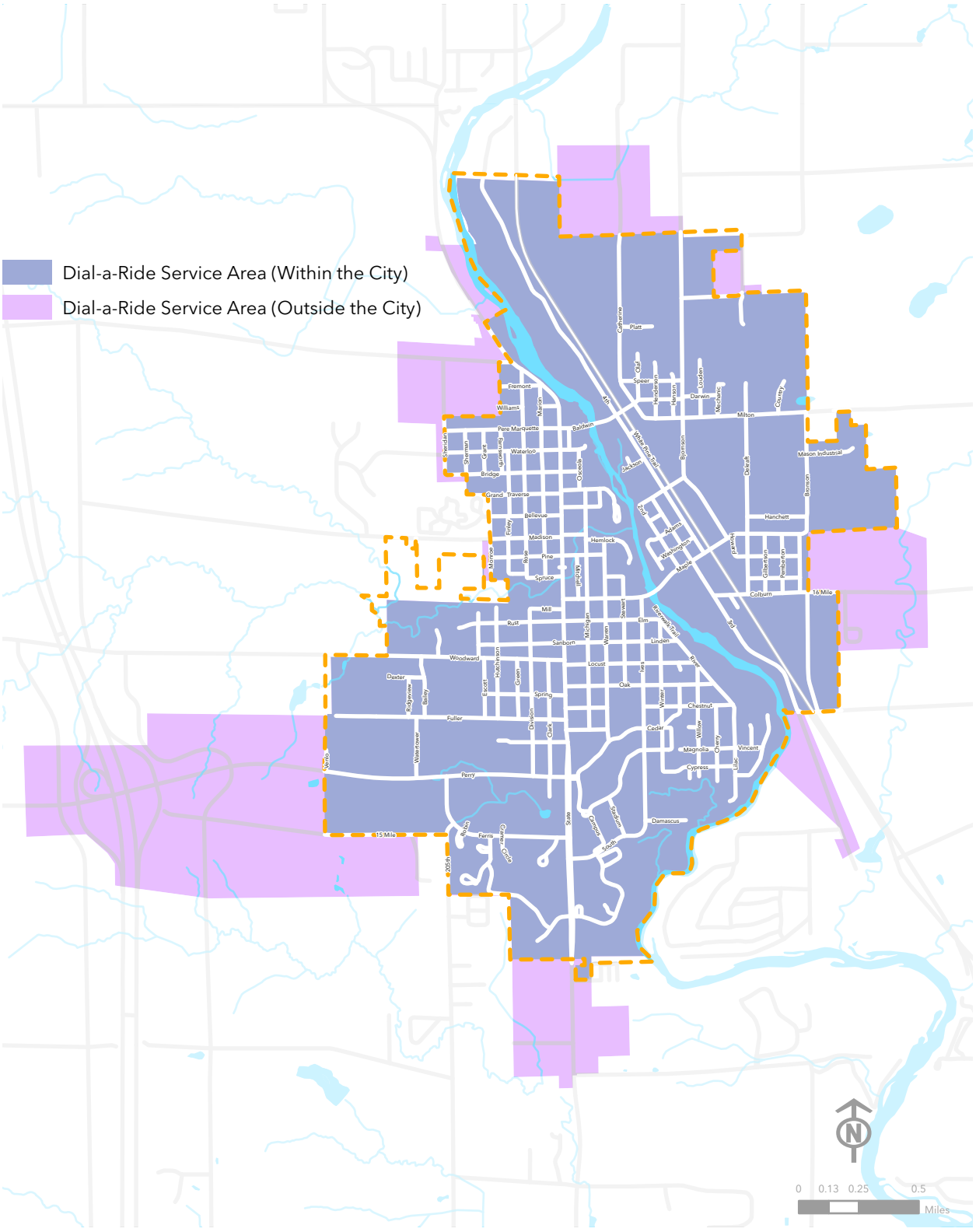
The White Pine Trail is 92.6 miles long and is the longest rail-to-trail corridor in Michigan, connecting Kent, Mecosta, Montcalm, Osceola, and Wexford Counties. Approximately 2.6 miles of the paved trail is located within the boundaries of the City of Big Rapids. The trail travels through 15 towns and cities, areas of rural farmland, has many overlooks, picnic areas, and more. There are many wildlife viewing opportunities along the route. Approximately $9.6 million in federal relief funding was received to pave the remaining 21 miles of the trail from Howard City to Big Rapids, providing a paved entry point into the south end of the City.

The City of Big Rapids recently won a $450k Revitalization and Placemaking (RAP) grant to support the development of a Depot Park that would serve as a trailhead to the White Pine Trail. The plan for the trailhead includes restroom facilities, a picnic area, a playground area, and additional parking. The Depot building will also undergo restoration to revive its original 1911 appearance, transforming the historical landmark.

The Riverwalk spans a distance of 3.29 miles along the eastern and western banks of the Muskegon River, serving residents of Big Rapids and neighboring areas. In addition to linking River Street Park with Hemlock Park, Swede Hill Park, and the Northend Riverside Park, the Riverwalk establishes a connection with the White Pine Trail. This integration offers a nonmotorized transportation option for residents residing west of the Muskegon River. The Riverwalk also offers opportunities for cross-country skiing and snowshoeing in the winter months.



Map 18 | DART Service Area



Public Transportation

Dial-A-Ride

Dial-A-Ride (DART) services provides "curb to curb" public transportation services in and around the City of Big Rapids (see service area in Map 18). Big Rapids DART is a shared ride, demand-response public transportation service with the intent for patrons to call for a ride and then share the ride with others. Pickup and drop destinations can be anywhere which could be for medical appointments, shopping, schools, or recreational places within the service area.

Big Rapids Dial-A-Ride has eight vehicles equipped with wheelchair lifts to provide transportation to mobility-impaired passengers. DART service hours are from 6:30am to 6:30pm Monday to Friday and 9:00am to 4:00pm on Saturday. The service rate per ride is $2.50 for adults and $1.25 for children 16 and under, seniors, and people with disabilities. Big Rapids Dial-A-Ride provides free rides for attendants who assist persons with disabilities.

Ferris Campus Shuttle

Big Rapids DART also provides a deviated route service for Ferris State University that consists of a shuttle route that loops around the campus and stops at key locations. The shuttle runs when the University semesters are in session. The shuttle service starts at 7:30am at the East Campus and ends at the University Center. These stops include:

1. East Campus (mailbox area)
2. Rock Café by Brophy Hall
3. Travis Hall (on road before loop)
4. Allied Health Building (Front)
5. West Campus Community Center
6. Lot 28 (South East Corner)
7. Front of the Arts and Science Building (by Stop Sign).
8. Lot 50 (south of Granger building)
9. University Center

Mecosta Osceola Transit Authority

Mecosta Osceola Transit Authority (MOTA) is located at 16 Mile Road in Big Rapids and provides a dial-a-ride bus service for people in Mecosta and Osceola Counties. All routes are demand-response. The service area covers the entirety of Mecosta and Osceola counties, and includes the dial-a-ride service area in the City of Big Rapids as mentioned earlier. However, it's important to note that MOTA does not provide rides within the City of Big Rapids. While rides can be scheduled for pickups from the City of Big Rapids, they must have a drop-off location outside the City.

Bus service begins at 5:00 am with the first available pick-up time for around 5:30 am depending on location, rides are scheduled until 7:00 pm, also depending on the location. The fares vary based on age and range from $1.00 for children (5-15), seniors (60-79), people with disability, and veterans and $2.00 for adults (16-59). Seniors over the age of 80 and children under 5 years of age ride free.

Airport

The Roben-Hood Airport is located two miles northwest of the City of Big Rapids. The airport is staffed Monday through Friday from 8:00 a.m. to 5:00 p.m. The airport is accessible by road from 18 Mile Road and is close to Business US-131. Despite being located in Big Rapids Township, the airport is owned by the City of Big Rapids. The airport covers an area of 629 acres which contains two asphalt paved runways and is categorized as a local general aviation facility. The airport provides facilities like restrooms, pilot centers, courtesy car service, conference rooms, and other amenities. The airport also hosts a regular airshow featuring antique aircraft and activities.

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Nonmotorized Planning

CHAPTER 5 NONMOTORIZED PLANNING

The way people feel moving and commuting around their community has a strong influence on their quality of life. In the City of Big Rapids, many of the neighborhoods were platted and designed using a traditional urban grid. Streets run at right angles, lots are modest in size, and the development of a connected sidewalk system allows people to move through the community in a pleasant, easy-to-navigate manner. Local and regional trails also provide people with pleasant places to walk, ride a bike or scooter, and use a wheelchair or other wheeled mobility devices. This existing urban form allows people to navigate in and throughout neighborhoods along a variety of routes.

The existing nonmotorized network was developed over time as the City grew and has been a valued part of the community's physical and social infrastructure. Through the public engagement phase of the Master Plan, residents articulated a continued desire to invest in and grow this system. People enjoy being able to move around Big Rapids by walking, biking, and rolling.

This chapter provides an updated nonmotorized plan for the development of this system within the City of Big Rapids. Building upon the history of the two previous planning efforts, the recommendations in this chapter provide a refined focus on developing key parts of the nonmotorized infrastructure that will fill gaps in the existing network, continue to build out the system, and recommend further improvements a important intersections. Input from the community engagement phase of the Master Plan was also incorporated. Highlights of this effort are included in this chapter, with more details provided in the Appendix.

Existing Nonmotorized Plans Summary

The City of Big Rapids Bicycle and Pedestrian Plan 2012 was developed through an effort led by a class at Ferris State University. The plan provided recommendations for nonmotorized infrastructure development based on the existing infrastructure and culture of the City. The plan identified a proposed nonmotorized network comprised of a variety of facilities and addressed the idea of using design guidelines for the design and construction of bicycle infrastructure like bike lanes and trails. There was also a methodology for suggesting the number of bike parking spaces, which are typically realized through the installation of bike racks, dependent upon building use and land use type. Site-level improvements for future nonmotorized infrastructure like trails, sidewalks, and bike lanes were also shown.

In 2019, an update to the plan was developed by another class at Ferris State University to reevaluate and update the previous plan based on new information. This plan was developed in response to public interest. The plan recommended bringing forward some of the previous infrastructure that had not yet been implemented from the 2012 plan along with some new ideas including the improvement of some key intersections with designs that included roundabouts, a pedestrian island, improvements to the Riverwalk, and wayfinding signage.

Public Engagement Review for Nonmotorized Planning

Public Support

During the update of the Master Plan, the public provided feedback on their desire and preferences for the development of the nonmotorized network in the City. Residents expressed a desire to invest in completing and maintaining the existing sidewalk network and a desire for more bike lanes and trails.

Over 25% of participants shared that they walk, bike, or roll (using a wheelchair or other wheeled mobility device) to events, running errands, medical appointments, and/or other places. This shows that there is a significant number of people in Big Rapids who take advantage of the existing nonmotorized infrastructure to move around the community. More than 70% walk or roll and nearly 20% bike for health, recreation, and/or enjoyment.

Map 19 | Survey Areas of Interest

Safety Needs

Through the community survey, the public expressed that the largest obstacle to using nonmotorized infrastructure is "A lack of safe, suitable infrastructure like crosswalks, designated trails/bike lanes, sidewalks, etc." Participants were also able to give feedback on roads and intersections that need improvements, as shown on Map 19.

The following is a sample of some of the 68 comments that were received on locations that need safety improvements in the City of Big Rapids:

- "Crossing State Street is a nightmare."
- "Darwin Avenue. There are tons of people that walk/bike along the street and the sidewalk stops shortly after the 4-way by the industrial park.
- "Ives along campus needs more and safer crossings for students especially around the bend near the rec facility.
- "State and Maple still seems confusing and I have witnessed pedestrians/bikes in close calls for disaster."
- "Perry Street"
- "Division and Sanborn"
- "A lot of sidewalks are in need of repair, and quite a few streets don't have a sidewalks at all."

Institutional Knowledge as Power

Participants used color coded stickers to share their preferences and their institutional knowledge about the community in regards to biking, walking, and rolling (people using wheelchairs, strollers, and other wheeled mobility devices.) Four different maps were used to capture information, along with a corresponding color, to show where people liked to walk, bike, and roll; where they avoided biking, walking, and rolling; local destinations; and places where nonmotorized improvements are needed. A fifth map was composed that overlaid the information of the previous four maps on each other. These maps are available in the Appendix in the information related to the charrette.

Preferred Future Street Designs

During the charrette that was held during the update of the Master Plan, participants gave their feedback on a variety of street types and preferred streetscape designs. Participants were asked to vote on which streetscape designs they preferred, and a majority were in favor of streetscapes that provided more space and dedicated infrastructure for people biking, walking, and rolling. Streetscapes dominated by designs that maximized vehicle throughput were not selected.

These results were incorporated into the development of the proposed nonmotorized network for the City of Big Rapids.

Nonmotorized Network Toolkit

Glossary

The following section provides a series of terms, definitions, and a series of graphics to inform the development of the City's nonmotorized network. Having this section acts as a touch point that will help local leaders, staff, and the public ensure that they are talking about and building a network of facilities that everyone understands.

Bike Lanes

(On Road) Bike Lane

A portion of a road that has been designated for exclusive use by bicycles with pavement markings and signs. It is intended for one-way travel, usually in the same direction as the adjacent traffic lane (unless designed as a counterflow lane). At least 5 feet wide and built on the road or "at grade."

Buffered Bike Lane

A portion of a road that has been designated for exclusive use by bicycles with pavement markings that have clearly delineated space between the bike lane and vehicular lane. This space can be marked by white paint, hash markings, bollards, or planters. Bicycle travel is one-way. The facility is at least 5 feet wide and built on the road or "at grade."

Separated Bike Lane

A bike lane is separated from other modes of travel by a vertical element such as on-street parking, bollards/ delineators, curbing, or grade-separation. Separated bike lanes can be one direction or bi-directional, at least 5 feet wide, and "above grade."

Sidepath

A term commonly used by the Michigan Department of Transportation (MDOT). A path located immediately adjacent to a road separated from motor vehicle traffic by an open space or barrier, either within the highway right of way or an independent right of way. Most sidepaths are designed for two-way travel and are at least 10 feet wide. Can be similar to a Separated Bike Lane.

Trail/Path

Paved Trail/Path

Off-road infrastructure that may be used by people walking, rolling, biking, and/or horseback riding that is paved with material such as concrete or asphalt. Most are designed for two-way travel.

Unpaved Trail/Path

Off-road infrastructure that may be used by people walking, rolling, biking, and/or horseback riding that can be developed with crushed limestone, gravel, woodchips, and other materials. Trails that are less-groomed or maintained may also be composed of hardened dirt or grass. Most are designed for two-way travel and are at least 10 feet wide.

Bicycle Boulevard (Shared Road)

Facility for a bicycle that is on the road and is for people on bikes and people driving a car. Noted as a dedicated route by signage. Sometimes the streetscape along these routes have enhancements that prioritize pedestrian and bicycle movements as the primary transportation mode. Roads may be marked by a painted "shared lane marking," as noted in the Manual on Uniform Traffic Control Devices (MUTCD).

Sidewalk

The portion of a street or highway right of way, beyond the curb or edge of road pavement, which is intended for use by pedestrians. Typically between four to six feet wide and composed of concrete.

Crossings

Raised Crosswalks

A crosswalk that is elevated above the surface of the road. Raised crosswalks enhance the visibility of the crosswalk users and encourage slower traffic. Signs and pavement markings are often included.

Raised Intersection

An intersection that is elevated above the surface of the road. Raised intersections encourage slower traffic and enhance the visibility of people biking, walking, and rolling. Signs and pavement markings are often included.

Mid-block Crossing

Designated area to cross located in the middle of a block, far from an intersection. These are usually located at places where people want to cross but the existing infrastructure is not safe. These are also popular near parks, schools, and other destinations that are not found at an intersection.

Rapid Rectangular Flashing Beacon (RRFB's)

Crosswalk enhancements that have flashing lights at a high frequency when activated to indicate nonmotorized user crossings to oncoming vehicles. They are effective at alerting and promoting yielding behavior for vehicles and increasing crossing safety for nonmotorized users.

Other

Curb Extension

Also known as bump-out or bulb out, used to narrow the road physically and visually to create a shorter crossing across a road.

Median Island

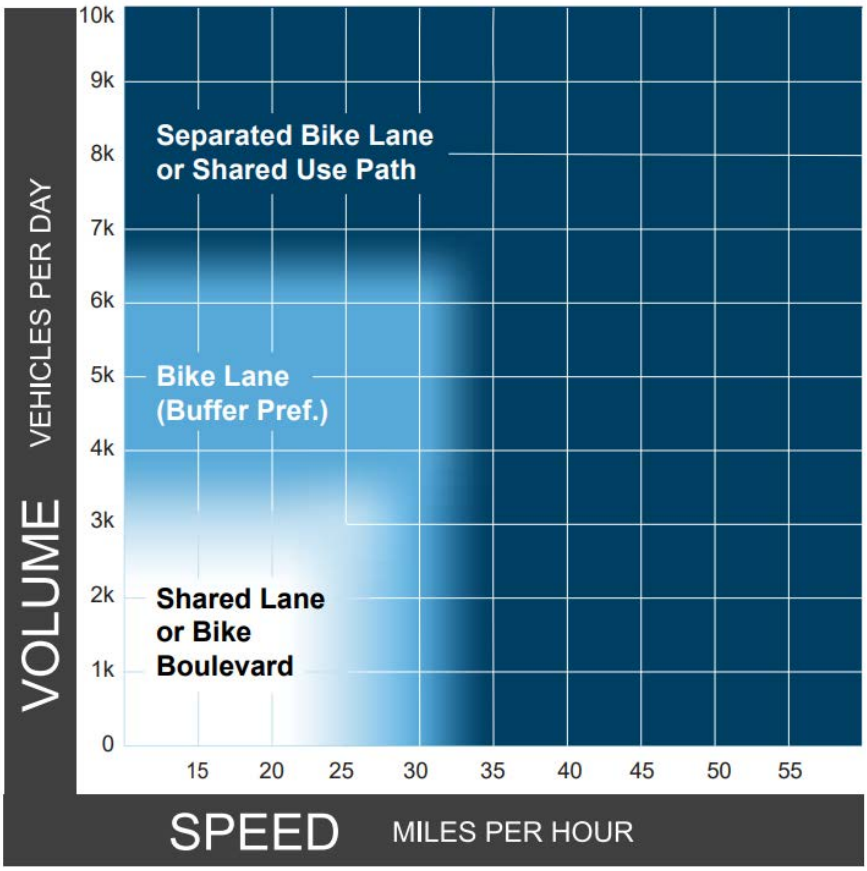
Also called a refuge island, a separated, raised island in the center of a road that physically separates the directional flow of traffic that provides nonmotorized users a place of refuge, reducing the crossing distance and simplifies a crossing by creating two short crossings. Can provide a strong visual indicator to motorists of the crosswalk. Often used in conjunction with rectangular rapid flash beacons.

Context Matters for Bikeway Design

The February 2019 Federal Highway Administration Bikeway Selection Guide provides a context-sensitive decision solution to identify and select nonmotorized infrastructure. The process accounts for the broader network and road context. It starts with the identification of a desired facility and then is refined based on real-world conditions such as available right-of-way and budget. This is important because the quality of nonmotorized infrastructure constructed will impact the number of people in the community who will use it and the level of comfort the individual bicyclists will enjoy. The more comfortable and safe a facility is perceived to be, the more members of the general public, including children, are likely to use it.

Figure 5.1 provides context on the number of vehicles along a given road (volume) and the speed in miles per hour. Generally, the higher the speed and volume of a road, the more protective the recommended bikeway. This also assumes that the operating and posted speeds are synonymous, however, if they differ, the operating speed should be used.

Figure 5.1 | Preferred BIkeway Type Based on Volume & Speed



Other factors when considering what kind of nonmotorized infrastructure should be built include:

- Unusual motor vehicle peak hour volumes
- Traffic vehicle mix
- Parking turnover and curbside activity
- Driveway/intersection frequency
- Direction of operation
- Vulnerable populations
- Network connectivity gaps

See the glossary section in this chapter for images of the different kinds of facilities listed in Figure 5.1. The NACTO Urban Bikeway Design Guide and the Guide for the Development of Bicycle Facilities are also resources for designing and constructing nonmotorized facilities.

Proposed Nonmotorized Network

The City of Big Rapids has an existing nonmotorized network comprised of sidewalks and a few trails and bike lanes. The following section provides recommendations on the proposed nonmotorized network for the City of Big Rapids.

Using the Federal Highways Bikeway Selection Guide (February 2019), as was summarized in the previous section, bicycle infrastructure type can be determined by the volume of vehicles per day and the speed limit. Generally, the higher the speed and volume of a road, the more protective the recommended bikeway. This information is important in determining the right kind of facility that should be built to support the development of the nonmotorized network in the City.

Sidewalks

Sidewalks are an extremely important part of the local transportation network. Residents shared that they enjoy walking around Big Rapids through feedback gathered through the community engagement phase of the master plan project. Many individuals are also a pedestrian at some point in their daily commute and transportation routine. The City's sidewalk network has been developed over decades and is well connected in many areas. However, in some locations, there are no sidewalks or there are significant network gaps along shorter City blocks.

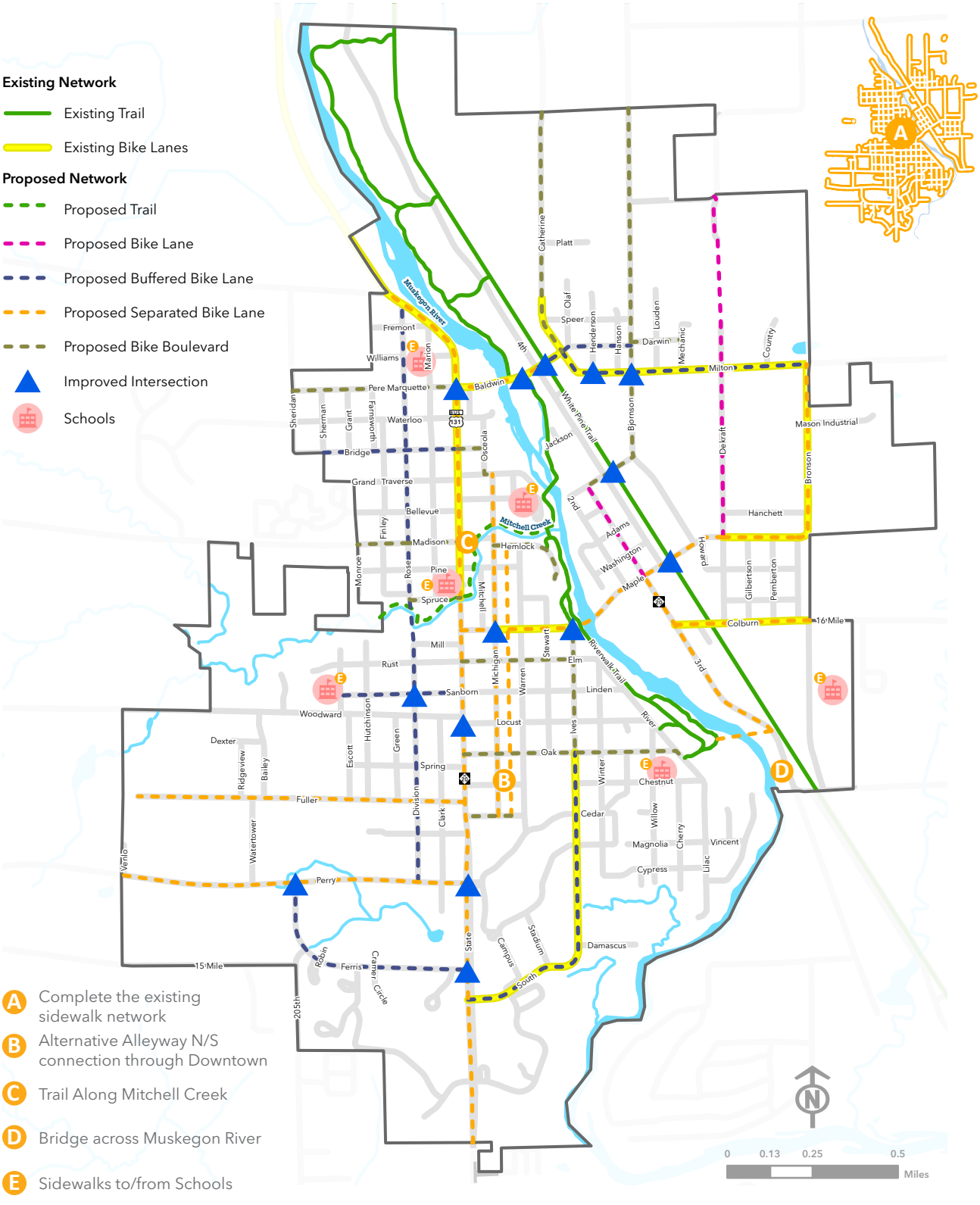
The City should continue to maintain and develop a complete sidewalk system that is connected throughout the entire community. The City can develop a sidewalk investment plan as part of the City's capital improvement plan to help direct the maintenance of the existing infrastructure and construct new sidewalks over time. Streetlights and street trees should also be included as improvements are made to help create an environment that feels safe and inviting.

Trails

Local and regional trails strengthen the nonmotorized network within the City of Big Rapids. The regional Fred Meijer White Pine Trail connects Comstock Park (in the Grand Rapids area) to Cadillac, by following an old railroad line, and runs through the eastern side of Big Rapids, just blocks from Downtown. The Riverwalk is a beloved local trail that runs along the Muskegon River and through some of the riverside parks.

There has been some conversation about having a trail bridge over the Muskegon River at the south end of the River Walk. Additionally, providing a connection along Mitchell Creek might be a way to provide an additional green off-road trail within the City. A connection to Clay Cliffs may also be possible.

Map 20 | Proposed Nonmotorized Network



Bike Lanes

MDOT installed a few bike lanes within the City of Big Rapids. These dedicated facilities are a great first step in legitimizing bicycles as a part of the local transportation system. Bike lanes are dedicated spaces for people on bicycles at grade (on road) identified by white paint and bicycle lane markings.

With this in mind, *this plan recommends building bike lanes on a few roads like Bronson Avenue, Dekraft Avenue, and 3rd Avenue (north of Maple Street), and others as noted on Map 20*.

Buffered Bike Lane

This kind of facility is a wider bike lane, providing more space between people driving vehicles and people on bikes. Buffered bike lanes are built at grade (on the road), but have a degree of separation based on the amount of space available, safety improvements needed, and financial resources dedicated to the project. The separation can be created by striped paint on the street, bollards, planters, or a raised median, and the facility can be built at or above grade (at or above street level).

Buffered Bike Lanes are recommended along streets like Division Street, Rose Avenue, Ferris Drive, and others as noted on Map 20.

Separated Bike Lane

Separated bike lanes provide dedicated space for bicycles and a clear separation from vehicular traffic by more than paint. This distinct space is meant to provide a safer environment for people who are biking and is needed due to higher traffic speeds and volumes.

Separated bike lanes are recommended along streets like Perry Avenue, State Street/ Northland Drive, Maple Street, Michigan Avenue, and others as noted on Map 20.

Bicycle Boulevards

Bicycle boulevards are intended to be low-stress bikeways primarily located on low-volume, low-speed local streets that are often found in residential neighborhoods. Treatments such as shared lane markings, wayfinding signs, and traffic calming features are implemented to prioritize bicycle travel, including at crossings with higher volume arterial roads.

A key aspect of a bicycle boulevard design is to ensure comfortable and safe crossings of intersecting arterials so that travel along the bicycle boulevard can be maintained. At approaches to higher speed and volume streets, many bicycle

boulevards transition to bike lanes, separated bike lanes, or shared use paths.

Bike Boulevards are recommended for streets like Elm Street, Pere Marquette Street, Bjornson Street, and others as noted on Map 20.

As part of the bicycle boulevard network, many residential neighborhood roads in the City of Big Rapids can also be considered part of the nonmotorized networks. Low-volume, low-speed streets throughout many of the residential neighborhoods in Big Rapids can be "shared roads" between people who drive vehicles and people who ride bicycles, and can play an important role in the development of the nonmotorized network. In shared road areas, bicyclists ride in mixed traffic, therefore their comfort and safety varies widely based on traffic operating speeds and volumes.

The City can consider installing shared lane markings and signs in some more heavily used areas like near schools or well-traveled routes, as they can be added to inform people driving that bicyclists may operate in the lane and to show where people riding bicycles may be expected.

Though not shown on the map, streets like Grant Street, Winter Avenue, Escott Street, and East Elm Street should be considered shared roads. Many low-speed, low-volume residential neighborhood roads may fall into this category.

Improved Intersections

At many road crossings, preferential treatment is given to vehicles. People biking, walking, and rolling are treated as second-class transportation modes. Many of the intersections across the City could be improved to make it safer for pedestrians and bicyclists to cross. There were many intersections identified through the public engagement phase that felt unsafe for residents, especially when they were to be crossed by pedestrians or people riding bicycles. There are many places where the intersections could be redesigned to reprioritize the movements of cars, pedestrians, and bicyclists and improve safety. The intersections that are prioritized to be redesigned are noted on Map 20. More study should be given to each of these intersections to provide specific design recommendations.

Signage & Wayfinding

Signage and wayfinding are important parts of the development of a nonmotorized system. Traffic control signs can improve safety and operation. Wayfinding systems can enhance value of the network by helping people identify and navigate desirable routes between destinations. Signs should be developed and used following the regulations from the Manual on Uniform Traffic Control Devices 11th Edition and the AASHTO Guide for the Development of Bicycle Facilities Fifth Edition.

Goals & Objectives

CHAPTER 6 GOALS & OBJECTIVES

A master plan's goals provide the guiding framework for community development and land use decisions for the City of Big Rapids. Goals should be thought of as the overarching statement written as a desirable state that the City aims to reach during the Plan's life which can be anywhere from 10 – 20 years. Objectives can be thought of as milestones that will help the City reach its goals.

Community Engagement

Events

The goals and objectives were developed based on a variety of events and activities held to listen and engage the community in August – October 2023, including two different "Pop-Up Planning" events, an online community survey, and six neighborhood focus groups in August - October 2023. The "Pop-Up Planning" events were held at two local events.

"Pop-Up" Planning

The first "Pop-Up" Planning event was held on Saturday, August 26, 2023, from 11:00 am – 1:00 pm during the City's annual Summerfest festival. Dozens of people visited the booth, including current residents, former residents, frequent City visitors, Ferris State University students, and Ferris State University students' families. Participants ranged in age from young children to older adults. The second event was held on Friday, September 15, from 11:00 am to 1:00 pm during the City of Big Rapids Farmer's Market. Market attendees were current City and Township residents and other community members who typically visit the farmer's market. Participants ranged in age from children to older adults.

Community Survey

From August 7, 2023, to September 25, 2023, the City of Big Rapids had a community survey open to gather public input on community development, housing, transportation, and other related topics. The survey was available online and printed copies were available at City Hall. A total of 225 responses were received with a 70% completion rate.

Neighborhood Focus Groups

Members of the community were invited to participate in six different focus groups, representing the six neighborhoods in the City of Big Rapids. Attendees were residents, business owners, non-profit staff, former City staff, former Planning Commission members, former City Commissioners, people affiliated with Ferris State University, and other local champions. Each of the focus groups was held at the City Commission room in City Hall.

Community Priorities & Desires

There were many issues and ideas discussed during the engagement activities for the Big Rapids Master Plan. The following themes emerged from conversations and feedback from the public.

Reinvestment & Redevelopment

Many of the neighborhood focus group attendees talked about the redevelopment potential that is available for the right kind of commercial, industrial, or residential investments across Big Rapids. Though there are some areas with stable homeowners and successful businesses in Big Rapids, there are many places ready for new opportunities. Some parcels are undeveloped and other areas have blighted, vacant buildings that demand to be repurposed, reused, and maintained. Unique structures could be turned into interesting offices and places for commercial stores. Ensuring that infrastructure and utilities are well-maintained and capacity can accommodate new developments was also important. The Downtown, Northeast, and Eastside neighborhoods are particularly ripe for reinvestment as noted by community survey respondents and neighborhood focus group participants. Filling vacant spaces downtown and improving the neighborhoods were identified as top City priorities in the community survey.

Housing

Community survey results show that participants support the development of single-family homes, attached single-family residential dwellings like duplexes, triplexes, townhomes, or row houses, and tiny homes (houses under 1,000 square feet) more than other types of houses. During the neighborhood focus groups, participants talked about the need for more and affordable housing, and expressed an openness to various kinds of housing developments across the City to support different types of households and income levels, and to encourage current property and homeowners to maintain their residences. The public understands that there is a need for more, well-maintained residential developments within the community to help it grow and thrive.

Nonmotorized & Recreation Infrastructure

Participants supported the continued investment in parks, recreation, and nonmotorized infrastructure during the various engagement activities. Based on the Penny Jar Voting results at the "Pop Up Planning" events, the participants were interested in having more activities along the Muskegon River and investing in nonmotorized infrastructure. Having more urban/walkable neighborhoods was more important to farmer's market attendees, which may have been because more people who live in or frequent the City attend this weekly event. A notable 72% of community survey respondents use nonmotorized infrastructure for health, recreation, and/or enjoyment.

Sense of Community

In the community survey, participants were asked what are the most important reasons that they live (or would live) in the City. The answers were:

1. Close to employment
2. Recreational opportunities (parks and trails)
3. A safe area
4. The people and sense of community
5. Natural beauty

People like to live in Big Rapids because it's close to where they work, and it's a nice, safe, recreation-filled place to call home. Many of these topics were also raised during the neighborhood focus groups as well as a sense of pride in their individual neighborhoods. These are important community aspects to retain and continue to support through implementing the Master Plan.

More information related to these events and results can be found in the Community Engagement Report found in the Appendix. Keeping these results in mind, the City of Big Rapids Master Plan will help City officials and leaders to support the development of the community using the following goals and objectives.

Goals & Objectives

Housing Goal 1. Through coordinated efforts to expand housing opportunities between the Housing Commission and other City departments, Big Rapids will be home to a variety of housing types and household located in walkable, inviting, and well-maintained neighborhoods.

Objectives

1. Work with the Big Rapids Housing Commission to incentivize building affordable housing projects.
2. Work with local financial institutions and the Big Rapids Housing Commission to promote programs that help first-time home buyers.
3. Support the Housing Commission's efforts to explore and build various types of housing developments in all neighborhoods across the City.
4. Amend the Zoning Ordinance to allow additional housing options in the City, such as accessory dwellings, live/work units, townhouses or rowhouses, and similar units that are compatible with the City's character.

Housing Goal 2. Ensure access to safe and affordable housing for individuals and families across all income levels.

Objectives

1. Develop workforce housing clusters near employment hubs throughout the City, including areas in the Eastside and Northeast neighborhoods and near Ferris State University.
2. Adopt policies that encourage/provide for aging in place to accommodate the aging portion of the City's population.
3. Require that all new, redeveloped, and retrofitted residential developments provide an explicit connection to nonmotorized infrastructure like trails, sidewalks, and bike lanes by strengthening requirements in the Site Plan Review requirements.
4. Review and, if necessary, amend the zoning ordinance to encourage residential development within transit service areas that serve the City of Big Rapids and Mecosta County.

Housing Goal 3. Enforce existing codes and ordinances to ensure that properties are well-maintained.

Objectives

1. Keep City staff trained and supported that are responsible for zoning and building code review and enforcement.
2. Increase the number of City staff that support building and property code enforcement responsibilities.
3. Maintain open lines of communication between Code Enforcement, Public Safety, and the Community Development Departments to allow for effective responses to code enforcement and property maintenance issues.
4. Ensure that property owners receive timely, clear communication regarding the specific violations that require corrective actions.
5. Connect seniors, military veterans, and other groups to resources that assist in the maintenance and care of their homes.

Housing Goal 4. Grow public knowledge and awareness of what individual residential property owners are responsible for and what services the City provides

Objectives

1. Send information out to residential property owners periodically to remind them of responsibilities and deadlines that should be met according to local ordinances and state laws.
2. Provide residents with information on what services the City does and does not provide when it comes to building and property enforcement.
3. Ensure communications to residents are done via printed materials and through online media to reach as many households and property owners as possible.

Housing Goal 5. Encourage the creation of mixed-use developments.

Objectives

1. Review the Zoning Ordinance to ensure that the language allows for mixed-use and mixed-density residential developments in appropriate locations in all neighborhoods across the City, especially in the Downtown and in some areas of the East Side neighborhood.
2. Amend the Zoning Ordinance to include standards that would address site design, building placement, build-to lines, ground-floor transparency, building entrances, and architectural standards within the Downtown.
3. Develop incentives for developers to build mixed commercial and residential spaces that include ideas such as a streamlined review process, density bonuses, and other methods.
4. Provide updated site plan review requirements for lighting, landscaping, and other aspects of public infrastructure and utilities that will enable developments like this to flourish.

Community & Economic Development Goal 1. Support a resilient and diverse economy that thrives across various sectors, including technology, manufacturing, services, health care, and education.

Objectives

1. Install and maintain the physical infrastructure like water, stormwater, sewer, sidewalks, roads, and others that are needed to support these sectors and their employees. Ensure that capacity needs are addressed.
2. Update the Zoning Ordinance to ensure that it accommodates and/or encourages contemporary and emerging residential, commercial, manufacturing, and other similar land use categories and development opportunities.
3. Work with economic development agencies like The Right Place to bring new businesses to Big Rapids that would diversify the local economy and/or be a supportive partner in the local mix of businesses.
4. Consider creating a dedicated business and technology park that may incorporate emerging opportunities from entrepreneurs and Ferris State University.

Community & Economic Development Goal 2. Strengthen the connection between education and workforce needs.

Objectives

1. Collaborate with local educational institutions to offer training programs aligned with industry requirements, ensuring a skilled and adaptable workforce is ready to meet the demands of emerging industries.
2. Support the development of apprenticeships as a means for growing a local skilled workforce.
3. Participate in conversations, initiatives, and programs that spur innovation, research, and development with local, regional, state, and federal agencies like Mecosta County Service Office or the Mount Pleasant Veterans Readiness and Employment Office.
4. Use and promote third places and their resources like the Big Rapids Library to facilitate and support workforce development.

Community & Economic Development Goal 3. Revitalize commercial districts, other identified areas, and essential infrastructure to create vibrant, accessible spaces that attract businesses and residents.

Objectives

1. Invest in urban design improvements, beautification projects, and the creation of welcoming public spaces throughout the City, especially in the Downtown, Eastside, Northeast, and Northwest neighborhoods.
2. Encourage the adaptive reuse of buildings, integrating modern functionality while preserving the unique character of the area like along areas of Maple Street, Baldwin Street, and State Street.
3. Review and update the Zoning Ordinance to ensure that commercial districts encourage and allow for highly desirable development, such as mixed uses (specifically residential above retail) and business with active storefronts in the downtown as uses permitted by right and/or with administrative approval.

Community & Economic Development Goal 4. Support the growth and sustainability of small and entrepreneurial businesses by streamlining regulatory processes.

Objectives

1. Research and implement municipal best practices to update regulatory processes to support the growth of these types of businesses.
2. Provide entrepreneurial incubator spaces in commercial and/or industrial zoning districts that provide affordable facilities and resources for startups and small businesses.

Community & Economic Development Goal 5. Foster a sense of inclusivity by creating public spaces that cater to diverse interests and demographics, organizing cultural events, festivals, and community gatherings that celebrate Big Rapids' diversity and bring people together.

Objectives

1. Design public spaces that are multifunctional and accessible to people with diverse interests and varied demographics at strategic sites across the City.
2. Expand the Downtown District Authority (DDA) boundaries to include a larger area that would support businesses beyond the immediate Downtown area.
3. Support local businesses exploring the development of a local group or district with agency and authority to invite commerce and activate areas of the City.

Community & Economic Development Goal 6. Facilitate the sustainable and economically viable redevelopment of brownfield sites to transform underutilized areas into vibrant, mixed-use spaces that contribute to local economic growth, job creation, and increased property values.

Objectives

1. Assign the Big Rapids Brownfield Redevelopment Authority to review brownfield sites within the City, and determine what sites might be viable for redevelopment.
2. Develop a plan for the Big Rapids Brown Redevelopment Authority to spur economic development on brownfield sites within the City.

3. When the City becomes a Redevelopment Ready Community, work with the Michigan Economic Development Corporation (MEDC) to develop a Redevelopment Ready Site for Big Rapids.

Public Utilities & Services Goal 1. Develop and implement strategies to address the potential impacts of extreme weather events on public utility systems and build redundancy and resilience into individual networks.

Objectives

1. Implement redundancy measures within the utility networks to mitigate the risk of service disruptions.
2. Continue to work with Mecosta County Emergency Management, the Big Rapids Department of Public Safety, and other agencies to develop and practice protocols that will support responsive systems.
3. Continue to seek resources from the City and other agencies to support the development of these networks and protocols.

Public Utilities & Services Goal 2. Implement ongoing assessments and improvements to public services to ensure that they are efficient, responsive, and tailored to evolving community needs.

Objectives

1. Identify potential weak points and susceptibilities, and develop plans to address these challenges.
2. Continue to connect the sidewalk network in all City neighborhoods.
3. Assess the importance and demand for ensuring that all City-owned streets are curbed.

Public Utilities & Services Goal 3. Maintain public utilities to accommodate population growth and the changing urban landscape, ensuring that infrastructure meets current standards, reduces response times, and can adapt to future needs and challenges.

Objectives

1. Community Development staff will be involved in the decision making process for utility-related projects that impact new and redevelopment projects, and to ensure that utility extension plans are consistent with the land use policies of this Master Plan.
2. Improve essential infrastructure to enhance use, accessibility, and connectivity within revitalized and redeveloped areas.
3. Continue maintenance of all facilities within City Parks.

Public Utilities & Services Goal 4. Establish transparent communication mechanisms to engage with the community to address concerns and incorporate suggestions.

Objectives

1. Ensure that the City's communication programs are accurate, maintained, and easily accessible for all community members including university students, individuals who do not have internet access, and those with disabilities.
2. Periodically remind residents of these programs in newsletters, tax bills, social media, and via other means.

Transportation Goal 1. Enhance nonmotorized infrastructure to create a safe, pleasant, and accessible environment for commuting and recreational purposes.

Objectives

1. Connect destinations within Big Rapids like residential neighborhoods, business districts, the Downtown, schools, parks, other recreational areas, and Ferris State University.

2. Identify and prioritize strategic locations to close gaps in the existing nonmotorized network.
3. Provide an attractive, inviting, safe route between the Downtown and the White Pine trailheads within the City.

Transportation Goal 2. Develop a transportation system that is accessible, seamless, and inclusive for all members of the community, regardless of age, ability, or socio-economic status.

Objectives

1. Work with the Big Rapids Dial-A-Ride, The Rapid, Mecosta-Osceola Transit Authority, and other transit agencies to provide a seamless transit experience for community members to access services and programs that enable a high quality of life.
2. Work with MDOT to develop the State Street/Northland Drive/US Business 131/Perry Avenue corridors that can support vehicular and nonmotorized traffic safely.
3. Identify locations that could be developed as transportation hubs, providing safe, secure locations where people could move from one transportation mode to another.

Transportation Goal 3. Develop and maintain resilient transportation infrastructure that can withstand disruptive events.

Objectives

1. Ensure that City-owned transportation infrastructure (roads, sidewalks, runways, etc.) are well-maintained and programmed to be included in the CIP.
2. Facilitate conversations with MDOT, the Mecosta County Road Commission, the Roben-Hood Airport, the City of Big Rapids Dial-A-Ride, the Mecosta-Osceola Transit Authority, The Rapid, Ferris State University, Big Rapids Township, Green Township, and others to ensure that relationships are maintained and communication opportunities are clear if interagency dialogue is needed.

Transportation Goal 4. Enhance safety for all users and reduce traffic congestion through effective traffic management strategies and improved infrastructure designs.

Objectives

1. Prioritize the development of well-marked crosswalks, dedicated bike lanes, and pedestrian-friendly intersections to improve safety in the heart of the City and along corridors that are well-travelled by vehicles and people biking, walking, and rolling.
2. Develop a priority project list based on identified locations where serious injury and death crashes occur, and work to address the issues at those locations.
3. Support the installation of lighting at critical locations to increase safety for all people in the City, especially in residential areas and along trails where there is a gap in it areas. Ensure that all street lights are maintained and working.

Parks & Recreation Goal 1. Continue to provide high-quality maintenance of parks.*

Objectives

1. Purchase and install high quality equipment whenever possible to decrease waste in repair and replacement costs.
2. Consider a volunteer "Adopt-A-Park" program that would complement the Parks and Recreation Department's effort of maintaining City parks.

Parks & Recreation Goal 2. Continue park upgrades to address the recreation needs of park facilities.*

Objectives

1. Develop the park for the Depot Park property.
2. Develop additional passive reaction opportunities, such as benches, shaded areas, upgraded or expanded walking trails, bike paths, picnic facilities, and other features, that appeal to a broad age range of city residents.
3. Install sufficient bicycle, kayak, and canoe racks located within the parks to accommodate trail users, Muskegon River users, and visitors.

4. Continue to upgrade and expand restroom access at all City parks and recreational facilities that meet ADA standards.
5. Install additional lighting at recreational facilities.
6. Explore the possibility of creating a public/private partnership to create a skate park and other recreational facility needs.
7. Consider seasonal enhancements such as holiday lighting at Hemlock and Northend Park.
8. Install additional artwork around City parks and along the existing trails.

Parks & Recreation Goal 3. Continue to improve universal access at all City parks.*

Objectives

1. Implement a surfacing program for trails and paths.
2. Maintain barrier-free parking spaces at all parks.
3. Provide universal access to restrooms and drinking fountains.
4. Provide universal access picnic tables when new or replacement tables are purchased.
5. Continue to maintain and repair or replace all asphalt for accessibility to all city parks.

Parks & Recreation Goal 4. Identify opportunities for winter-time recreation.*

Objectives

1. Identify, develop, and maintain new cross-country/snow-shoe trails.
2. Install a permanent outdoor ice-skating rink.
3. Identify and expand sledding and snow tubing locations.
4. Winterize the existing disc golf course.

Parks & Recreation Goal 5. Support facilities or businesses that provide recreation in non-athletic ways in all seasons. *

Objectives

1. Draw an entertainment venue like a movie theater to Downtown Big Rapids.
2. Coordinate with the Mecosta County Visitors Bureau to incentivize the location of a youth-oriented institution or business, such as a children's museum, in the City to provide fun, educational, positive spaces for recreation.
3. Support the creation of a facility or establishment that will interest residents and could become a regional destination, especially for families or youths.

Parks & Recreation Goal 6. Support the development of trails that enhance the quality of life and are assets to improving public, mental, and physical health.*

Objectives

1. Develop greenways and recreational corridors that provide scenic, safe routes for people who bike, walk, and roll, focusing on neighborhoods near existing infrastructure and that have the greatest need.
2. Showcase the connected network of nonmotorized infrastructure on the City website and via other means to increase public knowledge of these facilities.
3. Prioritize safety and accessibility by incorporating well-maintained paths, lighting, signage, and amenities along City trails.
4. Work with the DNR to support the development and maintenance of amenities along the White Pine Trail.

** Note that the Parks and Recreation Goals are from the City's Parks and Recreation Plan. Please refer to the current City Parks and Recreation Plan plan for any goal updates.*

Natural Resources Goal 1. Develop and implement strategies to address the potential impacts of extreme weather events on the local natural landscape and hydrological system ensuring the long-term resilience of the ecosystem.

Objectives

1. Review practices and policies to ensure that intentional habitat restoration projects like native vegetation plantings and rehabilitation of degraded

areas, especially in locations near natural areas and water where practicable, including the Muskegon River.

2. Identify areas and situations that are negatively impacting the Muskegon River, and develop a plan to incrementally address these challenges.

Natural Resources Goal 2. Review and explore the City's policies related to using environmentally friendly approaches in the development and maintenance of physical infrastructure and development projects, adapting to evolving environmental, social, and economic contexts.

Objectives

1. Develop a stormwater management policy guide and standards that include low-impact design and "green" approaches that encompass a variety of practices to direct future City and private projects.
2. Keep site plan development standards updated to ensure that the City's ordinance includes current best practices to encourage sustainable building and landscape design and construction in all developments.
3. Explore opportunities to incorporate energy-efficient appliances and systems when retrofitting, upgrading, or building new City spaces and buildings.

Natural Resources Goal 3. Rekindle the identity and connection the City of Big Rapids has with the Muskegon River.

Objectives

1. Develop a stronger, more accessible connection to the River based on the existing City access point and parks.
2. Continue to support agency and local business efforts to use the River as an educational and cultural keystone.
3. Develop attractions that draw tourists to the River for recreation and enjoyment.

Natural Resources Goal 4. Enhance and protect the natural habitats of the community, including the Muskegon River, to ensure that it is preserved for future generations.

Objectives

1. Designate and preserve urban green corridors to connect and enhance green spaces throughout Big Rapids.
2. Ensure adequate space for riparian buffers, the installation of natural vegetation, and areas for all development along the Muskegon River.
3. Collaborate with the Muskegon River Water Assembly and Ferris State University in support of the Muskegon River.
4. Work to keep the Muskegon River and shorelines free of invasive species.

Community & Culture Goal 1. Develop cultural corridors that connect to key cultural, generational, and community hubs, fostering a sense of place and accessibility for residents to engage with various cultural activities, events, and amenities within the community.

Objectives

1. Expand the network of art and interpretive signage in strategic locations to tell the inclusive history of Big Rapids.
2. Strengthen the Downtown and other neighborhood identities by highlighting important natural and man-made landmarks.
3. During the development of events and landmarks, work to ensure that a representative group of residents is involved in the decision making process.

Community & Culture Goal 2. Encourage the incorporation of mixed-use cultural spaces across the City to promote a dynamic and culturally rich environment.

Objectives

1. Integrate artistic venues, cultural institutions, and community gathering spaces into commercial and residential developments, especially in critical locations in each neighborhood.

2. Redesign and retrofit existing buildings to create spaces that residents and university students can use, enjoy, and encourage the development of inter-generational and cross-cultural relationships.

Community & Culture Goal 3. Downtown Big Rapids will continue to be known as the dynamic, active heart of the City that is clean, safe, and home to a varied and active business community. The City will emphasize increasing Downtown living options and preserving its cherished historic buildings.

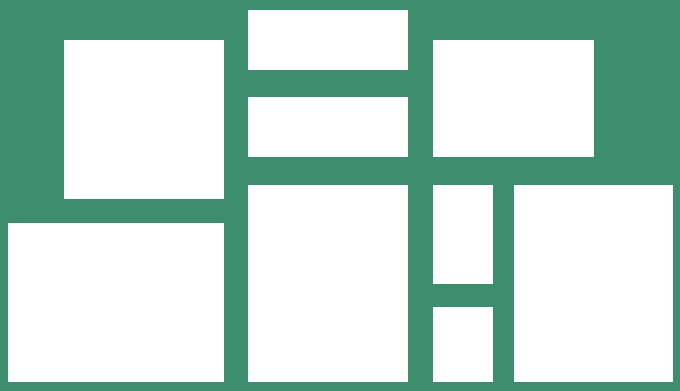
Objectives

1. Create additional public gathering spaces through urban design and placemaking principles that encourage people to gather and socialize in the Downtown.
2. Pursue grants that will support the vibrant development of Downtown.
3. Review the Zoning Ordinance and other City policies and regulations to ensure that they are using current best practices to drive mixed-use development in the Downtown.

Cooperation & Coordination Goal 1. Foster open dialogue where intergovernmental relationships facilitate joint decision-making, resource sharing, and coordinated efforts aimed at achieving shared economic prosperity and community well-being.

Objectives

1. Continue to host periodic meetings between the City of Big Rapids and Ferris State University top officials and decision makers to re-establish connections.
2. Coordinate nonmotorized planning with other local, regional, and state entities to ensure that a connected network of infrastructure is developed.
3. Identify populations that are missing from critical community conversations, committees, and leadership positions, and develop relationships to bring all groups to the table.
4. Seek ways to integrate residents' and Ferris State University students' interactions, growing relationships, and positive interactions into the community fabric.



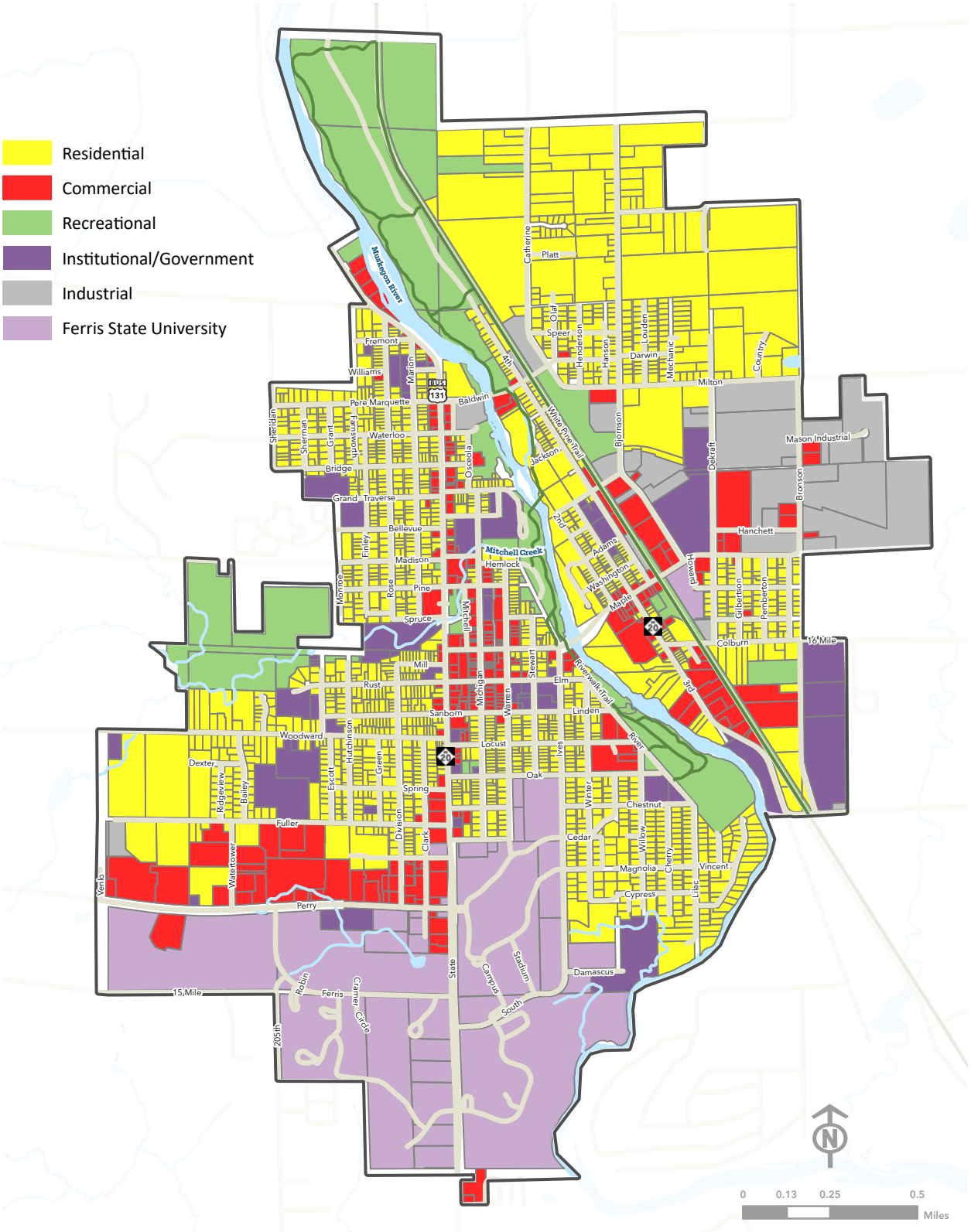
Land Use

CHAPTER 7 LAND USE

This chapter provides an overview of the existing and future land uses for the City of Big Rapids. The future land use recommendations are intended to help City staff, officials, and residents articulate a community vision and guide future development in the City. The City of Big Rapids is characterized by a well-defined gridded street layout, an architecturally rich downtown, and parks, schools, and recreation spaces conveniently located throughout the community. The Muskegon River creates and "blue and green" spine that runs from the northwestern to the southeastern portion of the community. The regional White Pine Trail parallels much of the Muskegon River's course within the City. Historic single-family houses comprise much of the City's housing stock, giving the neighborhoods' charm and structure. Public art is also sprinkled throughout the community, contributing to the City's culture and identity.

There is a strong need for more and varied housing types that meet the needs, lifestyles, demographics, and income levels of people who want to live in the City of Big Rapids. There are also vacant or underdeveloped parcels that are ripe for redevelopment. The historic civil and physical infrastructure that provides a strong urban aesthetic can help give form and function to these places for future development. The City also continues to be a center for employment and seeks to continue to support the businesses, institutions, and industries that are located within its boundaries.

Map 21 | Existing Land Use



Existing Land Use

Identifying the existing uses of the parcels in the City is helpful to understand the state of the existing land uses within the community, and to influence future land use decisions by the Planning Commission and City Commission. The following information provides an overview of the existing land use categories, with the corresponding information on Map 21.

Residential

This land use classification identifies where residential development is the primary use. Much of the land in the City is identified as residential, including the northeastern corner, most of the area west of Northland Drive/State Street/US Business 31 to north of Fuller Avenue, and the southeastern corner of the City, north and east of Ferris State University. There are several different housing types, but a majority of these are single family detached housing.

Commercial

The commercial land use category is used to include land uses for professional services, retail goods, offices/medical offices, restaurants and services, and other similar businesses in the City of Big Rapids.

Recreational

This land use classification is used to identify parcels where public or private recreational activities occur. This includes the City of Big Rapids parks and the White Pine Trail.

Institutional/Government

This land use classification includes uses that are religious in nature, educational-related facilities, and government uses. In the City of Big Rapids this category identifies parcels where area churches, municipal government buildings, and K-12 school buildings are located.

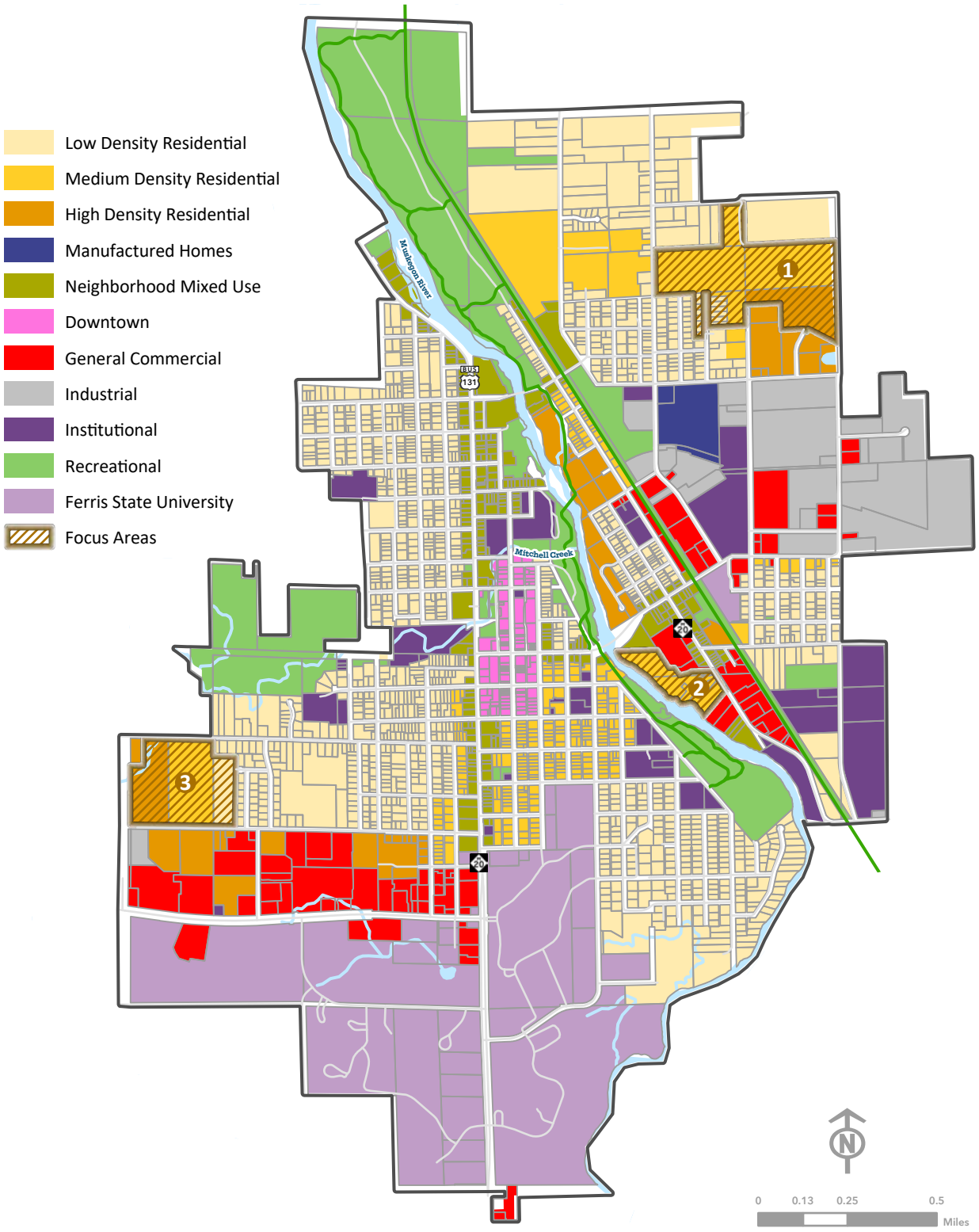
Industrial

The industrial land use category in the City includes a group of businesses that are located near or adjacent to each other east of the Muskegon River.

Ferris State University

These are all of the land holdings of Ferris State University, south of Perry Street, Cedar Street, and parts of Oak Street.

Map 22 | Future Land Use



Future Land Use

The following section describes the future land use designations as illustrated on Map 22. This applies to future growth and redevelopment in Big Rapids and will be useful to the Planning Commission and City Staff as development requests, zoning changes, and other policies are considered. Each future land use category is intended to foster a distinct character. Note that the future land use designations are to be viewed as general with indistinct edges. Where two or more designations adjoin, either future land use designation may be appropriate depending on several factors such as the land use proposed, available infrastructure, parcel access, and the uses on adjoining properties. The Future Land Use Map provides a general vision for growth and development for the next 10-20 years.

The Future Land Use Map and the Zoning Map relate to each other, however, they are different maps. The Zoning Ordinance and Map are the laws regulating the development and use of land in the City. The Future Land Use Map is a part of the Master Plan's policy that is used to guide the vision of the physical development of the City, and shape the desired forms and uses involved in development. The future land use map does not carry the force of law, but decisions related to the zoning ordinance and zoning map are informed by the future land use map to help determine if certain land use decisions are consistent with the overall community vision contained in the Plan.

LOW DENSITY RESIDENTIAL

This designation is defined by classic principles of urban design: accessible, tree-lined streets that connect in a predictable grid-like pattern where people feel comfortable biking, walking, and rolling (using wheeled mobility devices like wheelchairs). Properties are characterized by inviting front yards and porches or stoops, consistent building setbacks to promote a symmetrical neighborhood aesthetic, and historic, well-maintained architectural features. This designation reinforces the traditional character that has been the identity of several Big Rapids residential neighborhoods for over one hundred years. In addition to single-family homes, tiny houses, townhomes, accessory dwelling units, duplexes, and other housing types may also be compatible with this designation, especially on parcels near Downtown, near the Neighborhood Mixed Use land use classification, and adjacent to local and regional trails.

Important Concepts

- High-quality building materials and architecture should be used in all residential developments. The existing and historic forms in the neighborhood should be used as guidance for infill and redevelopment projects so that dwellings complement and enhance neighborhood character.
- Lot size should be determined by considering adjacent and nearby residential parcels. Smaller lot sizes exist in some City neighborhoods while others have larger lots. Providing flexible options will provide developers choices in building dwellings and neighborhoods that will meet the needs of a variety of housing owners seeking to live in Big Rapids. The City should also review the dimensional requirements of the zoning ordinance to ensure that the minimum lot sizes are consistent with the original plats.
- Projects proposed on larger undeveloped parcels in the northeast and in a few other key locations should be carefully evaluated to ensure that new development

fits into the surrounding neighborhood character.

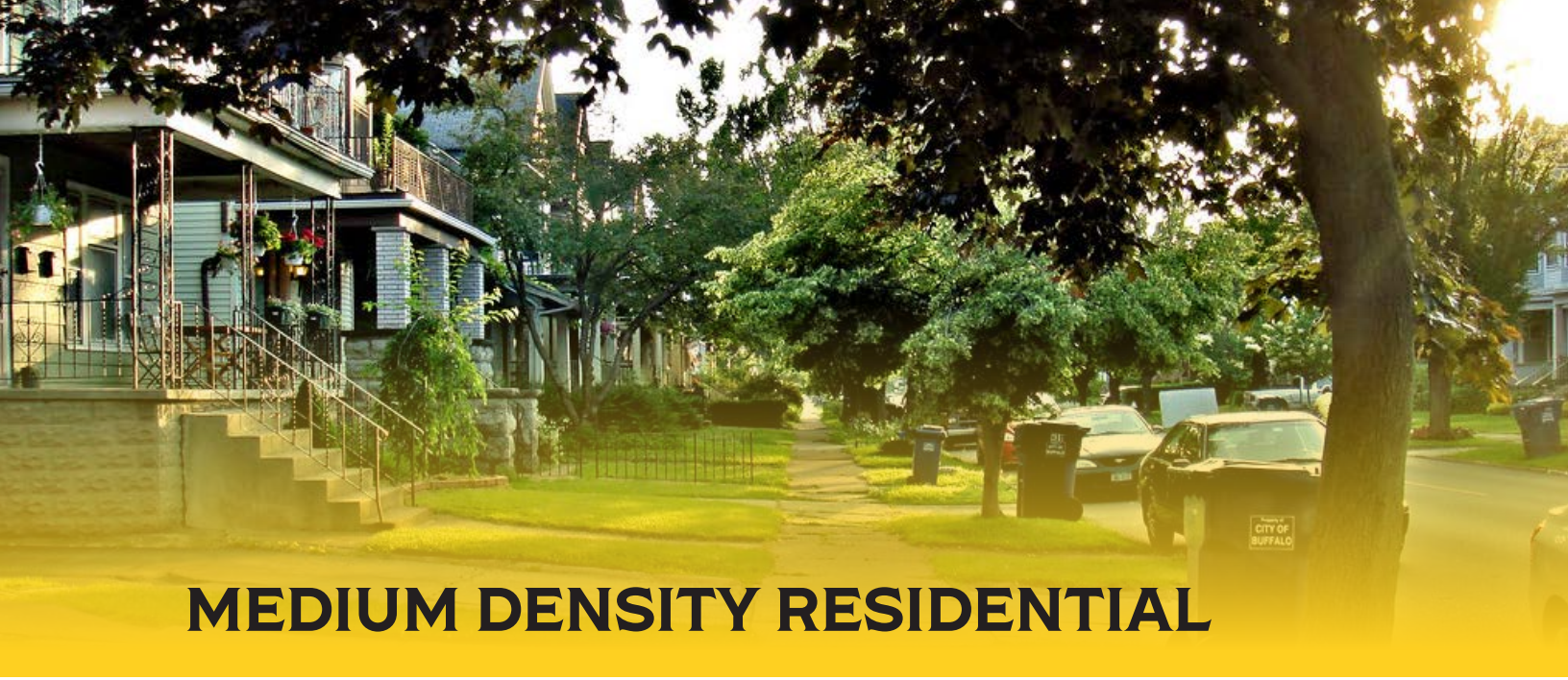
- Dwellings should include architectural elements like walkways, porches, or stoops that provide a visual and physical connection to the neighborhood.
- Accessory structures like garages and accessory dwelling units should always be set-back from primary structures to form a consistent, inviting streetscape environment.
- Promote connections throughout neighborhoods and to Downtown by developing and maintaining safe nonmotorized facilities, connected streets, and improved street crossings.
- Streets should be lined with street lights, trees, and street furniture as appropriate to provide a safe, comfortable environment.
- Encourage or require the use of green infrastructure elements, such as bio-swales, rain gardens, and native and drought-resistant plantings.
- Maximize connections to parks, schools, public spaces, and natural features that provide a pleasant experience for people biking, walking, and rolling (using wheeled mobility devices like a wheelchair).
- Places of worship may also be permitted here, as long as the development matches the existing character of the neighborhood.

Desired Land Uses: Single Family Detached Homes, Single Family Attached Homes (Duplexes, Town Houses), Accessory Dwelling Units, Two-Family Homes, Parks, Schools, and Places of worship.

Primary compatible zoning:	Potentially compatible zoning:
R-1 Residential District	R-P Residential Professional, R-2 Residential District

Factors to consider:

- Neighborhoods are intended to be residential, preserving the existing low-density character.
- In limited situations, additional density and/or allowable land uses may exist along the border of two areas where similar developments already exist or do not detract or negatively impact the surrounding land uses. Building aesthetics and use must adhere to the existing forms in the neighborhood.
- Language from the R-1 Residential District, the primary compatible zoning district:
  - Intended *"to provide areas of low density residential development"*



MEDIUM DENSITY RESIDENTIAL

This designation serves affordable attached and detached single-family homes on smaller lots as townhomes, duplexes, and multiplexes. Dwellings are intended to accommodate residential options for people of varying ages, abilities, life phases, households, and income levels. The future land use map designates three key areas for to medium density residential:

1. Areas north of the Ferris State University Campus in between State Street and Winter Avenue and north of Speer Avenue from Catherine Avenue.
2. Along Bjornson Avenue extending to the City/Township border
3. A portion of property between Fuller Avenue and Woodward Avenue.

Stormwater should be dealt with on-site, and environmentally friendly best management practices should be used. Playgrounds and sitting areas to provide recreational opportunities should be incorporated. Sidewalks, trails, bike lanes, and street layout should be designed to connect new developments to existing and planned infrastructure.

Important Concepts

- Attractive, durable building materials and architecture should enhance the existing neighborhood character to form high-quality, lasting developments.
- Building forms should include architectural elements such as walkways, porches, or stoops to provide visual and physical connections to the neighborhood.
- Projects can be one or more stories
- Pedestrian-oriented movement should be promoted by installing and maintaining sidewalks, bike lanes, and trails. Maximize connections to public spaces and natural features.

- Developments should include designated greenspace and/or access to parks and recreational amenities including play structures.
- Every dwelling may not need access to a vehicular parking spot. Incentivize parking reductions with options like accelerated approval processes/timelines. Secure, convenient, covered long-term bike parking areas may also be considered in place of vehicular parking spots.
- Encourage the use of green infrastructure elements, such as bio-swales, rain gardens, native and drought-resistant plantings.
- Infill projects that will enhance the existing neighborhood are encouraged.
- Places of worship may be permitted here, as long as the development matches the existing character of the neighborhood.

Desired Land Use: Single Family Attached, Single Family Detached, Duplexes, Multiplexes, and Mixed Use

Primary compatible zoning:	Potentially compatible zoning:
R-2 Residential District, R-3 Residential District	R-P Residential Professional

Factors to consider:

- This is not intended for multi-story, high density residential developments that are more typical of multi-building apartment complexes.
- In some limited instances residential units with a small portion of the site may be for offices. This may be allowable when the nonresidential use adds value to the residents, site, and follows the existing form and function of the built environment.
- Language from the R-2 and R-3 Residential Districts, the primary compatible zoning district:
  - R-2 Residential District
    - Intended *"to provide areas of higher density of residential development than is permitted in the R-1 District."*
    - *Permitted uses included those in "the R-1 District, plus two family residential dwellings."*
  - R-3 Residential District
    - *"Principal Uses and Structures: Multiple family dwellings. (Two or more multiple family dwellings on a single lot are regulated as a Special Land Use in this District.)"*

HIGH DENSITY RESIDENTIAL

High Density Residential development can be found in a few areas in Big Rapids including near Perry Street and along Fuller Avenue, Milton Avenue, and Colburn Avenue. This designation allows for the expansion of residential developments within the community at greater densities. This allows a variety of housing styles that fit the needs of a diverse population seeking to live in the City. Higher density housing allows for an efficient use of land and public services like the transit system, and allows more people to live near employment and service areas.

Important Concepts

- Attractive, durable building materials and architecture should enhance the existing neighborhood character to form high-quality, lasting developments.
- Building forms should include architectural elements such as walkways, porches, or stoops to provide visual and physical connections to the neighborhood.
- Projects can be two or more stories based on the existing or intended future neighborhood character.
- Promote pedestrian-oriented movement by installing and maintaining accessibility to sidewalks, streets, bike lanes, and trails. Maximize connections to public spaces and natural features through the existing mobility network.
- Developments should include designated greenspace and/or access to parks and recreational amenities.
- Consider that every individual dwelling may not need access to a parking spot, and incentivize parking reductions with options like accelerated approval processes and/or timelines. A small number of secure, safe, conveniently located, and covered long-term bike parking may also be considered in place of vehicular parking spots.

- Encourage the use of green infrastructure elements, such as bio-swales, rain gardens, native and drought-resistant plantings.
- Infill projects that will enhance the existing neighborhood without providing an undue burden on existing utilities will be encouraged.
- Places of worship may be permitted here, as long as the development matches the existing character of the neighborhood.

Desired Land Uses: Apartment Complexes, Multi-Family Residential, Assisted Living Facilities, Senior Housing, Mixed-Use, Office

Primary compatible zoning:	Potentially compatible zoning:
R-3 Residential District	R-2 Residential District, RR Restricted Residence District

Factors to consider:

- This may allow for multi-story, high density residential developments that are more typical of multi-building apartment complexes.
- In some limited instances, residential units with a small portion of the building/site may be for offices. This may be allowable when the nonresidential use adds value to the residents, site, and follows the existing form and function of the built environment.
- Language from the R-3 Residential District, the primary compatible zoning district:
  - R-3 Residential District
    - Intended *"to provide areas of higher density of residential development than is permitted in the R-1 and R-2 Districts."*
    - *"Principal Uses and Structures:*
      - *"Two family dwellings."*
      - *Multiple family dwellings. (Two or more multiple family dwellings on a single lot are regulated as a Special Land Use in this District.)"*
    - *"[O]ffice structures are permitted."*

MANUFACTURED HOMES

Manufactured homes provide an affordable place to live for community members and can also serve as a short-term housing option. Natural vegetative buffers around the manufactured home park can provide shade and buffer for residents from other land uses.

Important Concepts

- Attractive, durable building materials and architecture should enhance the existing neighborhood character to form high-quality developments.
- When possible, building forms should include architectural elements like porches or stoops to provide connections to the neighborhood.
- Individual properties, buildings, and neighborhood grounds should be kept neat, clean, and well-maintained to provide a high standard of living for residents.
- Developments should include designated greenspace and/or access to parks, recreational amenities, and play structures when appropriate.

Desired Land Uses: Mobile Home Parks, Manufactured Homes, and related amenities

Primary compatible zoning:	Potentially compatible zoning:
R-4 Mobile Home Park District	N/A

NEIGHBORHOOD MIXED USE

The Neighborhood Mixed Use classification is located along Northland Drive/State Street/Business US 131, and parts of Maple Street and Baldwin Street are intended to develop a consistent, cohesive urban feel along each corridor. This designation is meant to support development that contributes to and is emblematic of that street's identity. The land in this designation should accommodate a variety of neighborhood-scaled mixed use patterns and support small-scale, local developments to serve the needs of residents in nearby neighborhoods.

Important Concepts

- Non-residential development should be limited to small building footprints and heights should not exceed two stories, or similar to surrounding residences and buildings.
- Multi-modal complete streets designed to move people and goods in a way that is safe, accessible, and allow for a variety of transportation modes should be encouraged.
- People-oriented movement should be promoted throughout the corridors and to Downtown by adding sidewalks, crosswalks, bulb-outs/bump-outs, bike lanes, and other traffic calming measures. These elements can also be used to create consistency along a corridor.
- Maintain a street environment with regular vertical elements to create a unified aesthetic and edge friction to reduce traffic speeds such as street trees, lamp posts, and other related items. Streetlights should be set at regular intervals and used to enhance public safety.
- Consider the use of parking maximums for non-residential uses to preserve land for other uses and to reduce the amount of land dedicated to parking

spaces. Balance the development of on-street parking needs with the location of sidewalks, bike lanes, and future transit stops since not everyone commutes by personal vehicle. Support the location of bike racks in areas to promote convenient, visible, secure parking for people who travel by bike.

- Residential buildings that include architectural elements such as walkways, porches, or stoops are encouraged to provide visual and physical connections to the street.
- Accessory structures, such as garages and accessory dwellings, should be set back from primary structures to form a consistent environment.
- Encourage the use of green infrastructure elements, such as bio-swales, rain gardens, native and drought-resistant plantings for all development and street projects.
- Maximize connections to surrounding neighborhoods and natural features, especially the Muskegon River and Mitchell Creek.

Desired Land Uses: Mixed Uses, Live/Work, Retail/Commercial, Office, Attached or Detached Single Family Residential, Townhouses

Primary compatible zoning:	Potentially compatible zoning:
A new district is recommended to fully implement the recommendations of this designation.	R-1 Residential District, R-2 Residential District, R-3 Residential District, R-P Residential Professional, C-2 Commercial District

Factors to consider:

- Encourage (re)developments that would contribute to (not detract from) the character and ambiance intended for the immediate neighborhood and surrounding areas. This includes the number of floors and the total building height.
- When thinking about parking for residents, tenants, customers, and/or staff, remember not everyone has or wants to use a vehicle. The historically traditional number of parking spaces desired or the use of parking maximum thresholds may not be necessary when accommodating vehicle storage.
- There is a desire to develop an intentional urban form along the corridors with this future land use. This means the land uses, streetscape, and building aesthetics need to be brought in alignment over time. The corridors would likely evolve into a more people-oriented, accessible area.
- Language from a new zoning district should be used to inform future development, function, and form.

DOWNTOWN

A popular destination for residents, the City is seeking to drive more visitors and students to this area to infuse the Downtown with energy and establish it as the identity and heart of Big Rapids. Many buildings in Downtown are multi-storied and have architectural and historical characteristics that create a unique sense of place that should be preserved. Downtown contains small shops, local restaurants, Pocket Park, a well-maintained streetscape, and is located just a few blocks from the Muskegon River, Hemlock Park, Mitchell Creek Park, River Street Park, and the Riverwalk, creating an inviting atmosphere in the center of the City.

Important Concepts:

- A healthy mix of active ground floor uses that fosters a welcoming, people-oriented environment (restaurants, cafes, demonstration studios, retail and service businesses, etc.) is highly encouraged. Sidewalk sales, outdoor seating, and public art should contribute to the streetscape, creating a place that is navigable and enjoyable. Office spaces or similar uses that do not contribute to an active street should be located on the upper floors of buildings whenever possible.
- Density should be encouraged. Buildings should be adjacent to the sidewalk and the first floors of buildings facing the street should have a high degree of transparency. Multi-story buildings that complement the historic character of the existing building stock should be strongly encouraged.
- Reprioritize mobility in Downtown by enhancing infrastructure that allows people to move safely and conveniently by biking, walking, and rolling (using wheeled mobility devices like wheelchairs). Maintain a connected, complete streets network that enhances pedestrian safety by slowing traffic, and improving key intersections and multi-modal crossings.

- Surface parking should be reduced through public parking offsets, deferred or shared use parking agreements, and other methods.
- Bike racks should be installed in visible, convenient locations to promote mobility options other than the personal vehicle. Placing racks near the curb, where street furniture is located, and near building entrances provides a message of priority, safety, and security for people choosing to use bicycles.
- Include and maintain streetscape enhancements, such as street trees, sidewalks, decorative paving patterns, lights, plantings, waste receptacles, bike racks, and benches.
- Encourage the use of green infrastructure elements, such as bio-swales, rain gardens, native and drought-resistant plantings.
- Maximize connections to public spaces and natural features like the Muskegon River, the White Pine Trail, Pocket Park, Hemlock Park, Mitchell Creek Park, and City Hall.
- Places of public assembly would be permitted as long as the (re)development evokes and is consistent with the existing neighborhood character. The existing urban form and function should dictate the use and programming of the space.

Desired Land Uses: Retail, Office, Commercial, Mixed Use, Multi-Family Residential, Recreation

Primary compatible zoning:	Potentially compatible zoning:
C-2 Commercial District, R-2 Residential District	R-P Residential Professional

Factors to consider:

- Consider if the (re)development would contribute to or detract from the character, identity, and ambiance intended for Downtown Big Rapids. This includes the number of floors and the total building height.
- Encouraging uses and (re)developments that will invite more people to the Downtown for a period of time, infusing a sense of excitement, community, and turnover.
- When thinking about parking for tenants, customers, and/or staff, remember not everyone has or wants to use a vehicle. Some individuals may reach the Downtown by walking or biking, reducing the need for vehicular parking. The historically traditional number of parking spaces desired or the use of parking maximum thresholds may not be necessary when accommodating visitors to the area. Especially true if the use/business is intended to relate to uses of the White Pine Trail.
- Public assembly developments should take advantage of the existing features on a site, and retain the existing building setback, streetscape aesthetic, make any significant changes to the back portion of any property.
- Language from the R-2 Residential District and C-2 Commercial District are the primary compatible zoning district:
  - R-2 Residential District
    - Intended *"to provide areas of higher density of residential development than is permitted in the R-1 District."*
  - C-2 Commercial District
    - Intended *"to provide areas of high concentrations of pedestrian-oriented retail activities."*
    - *"Principal Uses and Structures:*
      - General retail establishments…Personal service establishments… Retail establishments m*arketing primary convenience goods" [review list in ordinance for further guidance/restrictions.*
      - *"Dwelling units within commercial structures, except on the main floor and basement of those struc*tures."

GENERAL COMMERCIAL

Following the pattern of a suburban-style commercial corridor, this designation is defined by larger-scale commercial activity along the Perry Street corridor along with limited areas on the southeastern portion of 3rd Avenue, and parts of Bjornson Street and Dekrafft Avenue. This master plan does not outline any significant expansion of the existing general commercial areas but rather an improvement upon what has already been built and supports opportunities for infill development.

Important Concepts

- Street-facing building façades should add to the aesthetic quality of the street and be designed to break up large building expanses. This can be done by requiring building transparency (>50%), high-quality materials, and regular façade articulations to create a three-dimensional form.
- While it is recognized that this designation is largely automobile-oriented development, steps should be taken to improve these areas. Driveways and parking lots should be well-landscaped and sized appropriately for the uses they serve. Using parking maximums (instead of minimums) can provide space for nonmotorized facilities like sidewalks, bike lanes, and bike racks in developments as well as minimize pervious surfaces which contribute to stormwater management issues.
- Development patterns that encourage multi-modal access, including enhancing the safety of people biking, walking, or rolling (using wheelchairs or other mobility devices) and transit stops should also be encouraged, rooted in complete streets concepts.
- Nonmotorized connections to nearby neighborhoods should be encouraged, allowing convenient access without needing to drive a vehicle to residents who live nearby.

- Landscaping should contribute to softening and shading the corridor. Plants should be native and drought-tolerant when possible.
- The use of green infrastructure elements is encouraged, such as bio-swales, rain gardens, and native plantings for all development and street projects.

Desired Land Uses: Retail/Commercial, Office, Mixed Use, Indoor Recreation

Primary compatible zoning:	Potentially compatible zoning:
C-1 Commercial District	C-3 Commercial District

Factors to consider:

- Service, retail, and restaurant uses are the focus of this future land use classification, especially in areas along Perry Avenue, which are intended to be a retail corridor.
- On-site storage is not an intended use.
- Language from the C-1 Commercial District the primary compatible zoning district:
  - "[I]ntended to serve the needs of local residents, regional residents and the highway traveler. Desired establishments include general retail establishments complimented by highway service uses such as hotels, gas stations and restaurants."

INDUSTRIAL

Big Rapids values the jobs and tax base that industrial employers bring. Industrial activities are designated on the City's east central side, and take advantage of being located near M-20, a state-owned road with easy access to US 131. Having housing located in nearby neighborhoods also helps provide people an option to live near where they work, providing an additional benefit to the land uses and their co-locations in the City. The expectation is that most parcels identified as "industrial" will remain in that use, but significant expansion to additional lands is not anticipated. However, in limited circumstances, non-industrial businesses in this area should be primarily service-oriented establishments with limited retail that is complimentary to the service nature of the business.

Important Land Use Classification Details

- Provide a buffer between the industrial areas from existing and planned residential development to protect residents from obtrusive noise, sound, smell, and light pollution.
- While development will be more automobile-oriented, driveways and parking lots should be well-landscaped and sized appropriately for the uses they serve. Considerations for nonmotorized facilities like transit stops and/or bike parking (bike racks) could be made, as not everyone owns a vehicle and drives to work.
- Building façades on the street should add to the aesthetic quality of the street and be designed to break up large building expanses. This can be done by requiring building transparency (>50%), high-quality materials, and regular façade articulations to create a three-dimensional form.
- The use of green infrastructure elements is encouraged, such as bio-swales, rain gardens, native, and drought-resistant plantings.

- Loading areas should be either on the side or at the rear of the building, hidden from public view.

Desired Land Uses: Manufacturing, Processing, Assembly, Research, Office, Limited Retail/Service Brewing/Distillery

Primary compatible zoning:	Potentially compatible zoning:
I - Industrial District	N/A

INSTITUTIONAL

Governmental buildings and public and private schools (other than Ferris State University) comprise the land uses in the institutional classifications. These uses are scattered throughout the City.

Important Concepts

- Connections between these uses should be maintained and encouraged since they are important destinations within the City

Desired Land Uses: Government Buildings, Religiously Affiliated Facilities/Places of Worship, Schools (other than Ferris State University)

Primary compatible zoning:	Potentially compatible zoning:
N/A	Institutional uses such as government facilities, places of worship, and other facilities may be located in several designations. If the City is contemplating a zoning change due to the redevelopment of an institutional use, the City should carefully evaluate surrounding zoning districts and land uses to ensure that the character of future development is compatible with the surrounding neighborhood.

RECREATIONAL

This designation is used to identify the many parks in Big Rapids, as they are scattered throughout the City and along prominent natural features like Mitchell Creek and the Muskegon River. The City is looking to maintain and improve these features over time following the recommendations of the City's 5-year Parks and Recreation Plan.

Important Concepts

- Incorporate universal design elements and recreation amenities that serve people of all ages and abilities.
- Maintain an appropriate buffer comprised of natural features along the waterways like Mitchell Creek and the Muskegon River which will help clean pollutants from stormwater runoff after significant/seasonal precipitation or snowmelt events. Provide appropriate buffers to sensitive natural features, such as steep slopes and high-quality natural features, when considering improvements.
- Retain naturalized areas in Clay Cliffs and along the Muskegon River for recreation and habitat preservation.
- Connections between these uses should be maintained and encouraged since they are important destinations within the City, including local and regional trails.

Desired Land Uses: Parks, Public and Semi-Public Pools, Indoor Recreation

Primary compatible zoning:	Potentially compatible zoning:
Any residential or commercial district	I - Industrial District

Factors to consider:

- Follow the recommendations, goals, and strategies of the City's Parks and Recreation Plan.
- The development of new parks and recreation spaces should be consistent with adopted plans.
- Parks and recreation spaces should be located in a way that serves the community's needs and positively impacts the local neighborhood.
- Give thought to the intention of the neighborhood's existing and planned future environment.

FERRIS STATE UNIVERSITY

Covering much of the southern part of the City, Ferris State University is a significant land use in the community. Understanding that the institution has a strategic plan and master plan for the campus lands, the City recognizes its autonomy. The City does not have authority over how the University uses its land, yet re-establishing the relationship and dialogue would continue the legacy of good faith efforts and collaboration between the two entities. Land uses within the campus include residential buildings, informal and formal recreation spaces like athletic venues and open fields between dormitories, academic buildings, places for student services and support, and administrative buildings and the physical plant. Being located along the Muskegon River, there are also natural areas that exist along the shoreline.

Desired Land Uses: Ferris State University (the institution decides how the land is used).

Primary compatible zoning:	Potentially compatible zoning:
Not Applicable	Not Applicable

Factors to consider:

- Institutions of Higher Education are exempt from local building and zoning ordinances and subject to State of Michigan laws and regulations that are clearly intended to apply to universities.

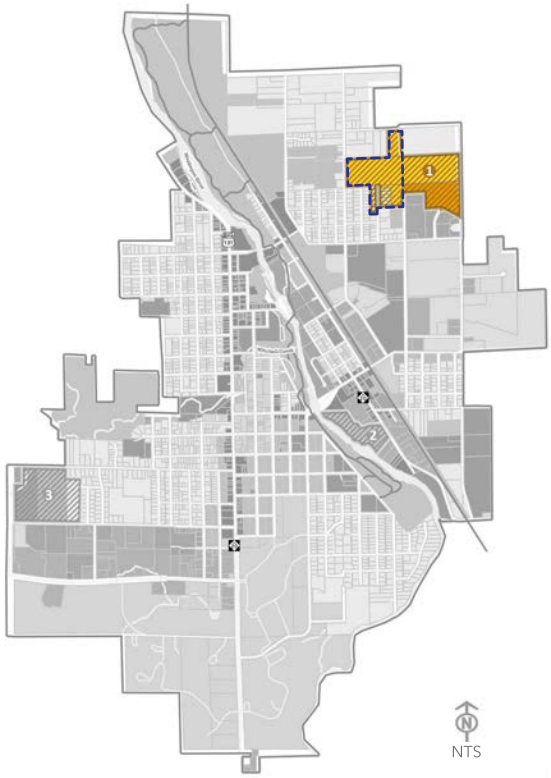
City of Big Rapids Future Land Use Focus Areas

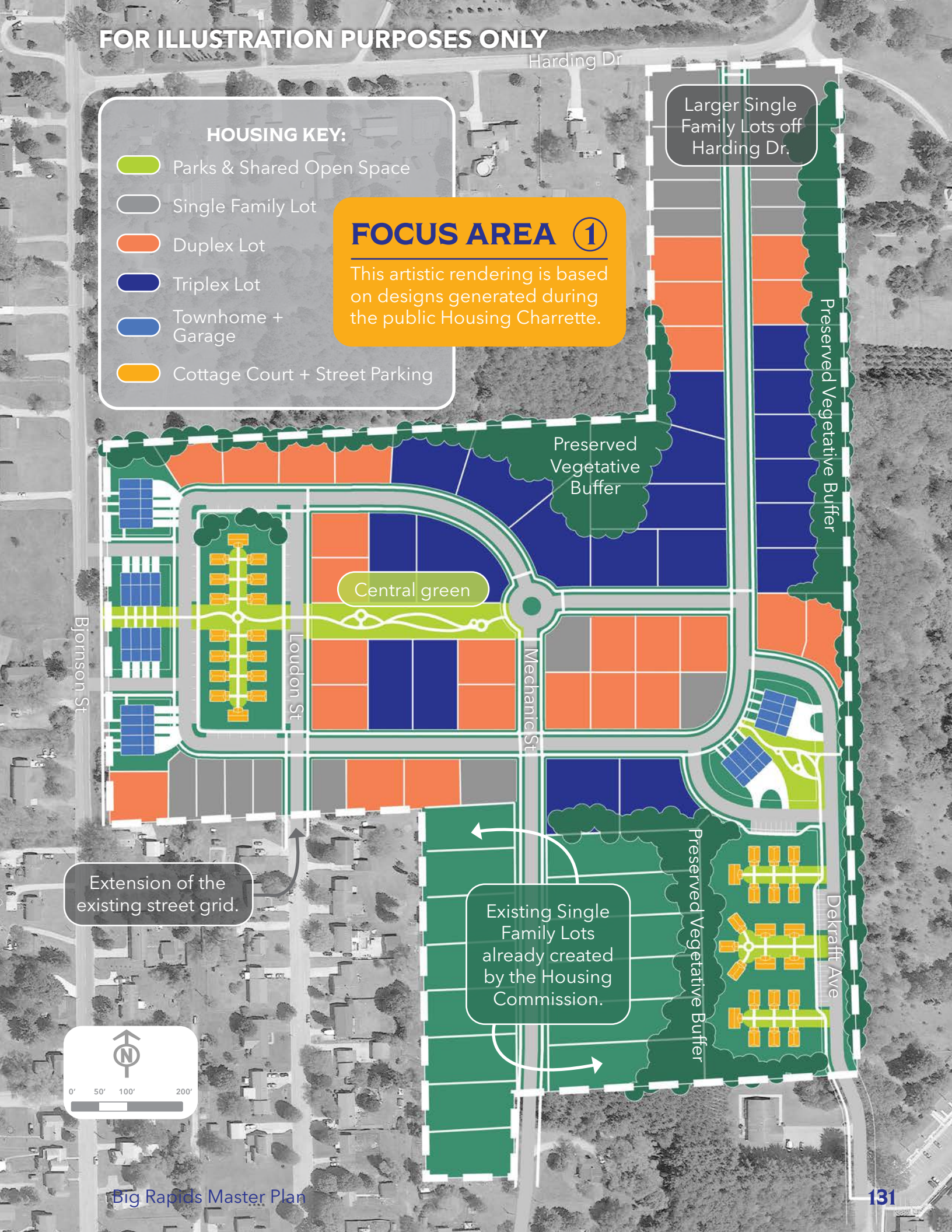
FOCUS AREA 1

City of Big Rapids & Big Rapids Housing Commission Future Housing Site

A mix of residential development types and densities is envisioned for this large site, as was discussed during the public Housing Charette that was held during the development of the master plan. In accordance with the agreement between the City of Big Rapids and the Big Rapids Housing Commission, the two entities will work together to plan and develop this area. This allows for some flexibility to address some of the housing needs for current and future residents of Big Rapids.

The artistic layout developed on the following page suggests one idea for a variety of housing types that are laid out along new and extensions of existing streets to demonstrate the site's capacity. High-density dwellings represented as Townhomes and garages are shown along Bjornson Street. Moving east in the site, Cottage Courts with on-street parking are shown along an extension of Loudon Street and a new street. A central green for parks and shared open spaces runs east to west as a welcoming place for recreation and play. Another area shows Townhouses and garages, Cottage Courts with on-street parking, and parks and shared open space along an extension of Dekrafft Avenue. Medium-density dwellings like duplex and triplex lots are centrally located, including along an extension of Mechanic Street. Single family homes are shown near existing single family homes on the southern edge and northeastern corner of the site. A vegetative buffer is also shown in several locations, reflecting the greenery that is common in other City neighborhoods. Residential buildings within this site should use the architecture and character from the nearby neighborhood to inform building style. A sidewalk system should be built that connects to the existing neighborhoods and within the development. Considerations should also be made for street lighting, street trees, and similar people-oriented amenities.




FOR ILLUSTRATION PURPOSES ONLY
Harding Dr
HOUSING KEY:
Parks & Shared Open Space
Single Family Lot
Duplex Lot
Triplex Lot
Townhome + Garage
Cottage Court + Street Parking
FOCUS AREA 1
This artistic rendering is based on designs generated during the public Housing Charrette.
Larger Single Family Lots off Harding Dr.
Preserved Vegetative Buffer
Preserved Vegetative Buffer
Central green
Bjornson St
Loudon St
Mechanic St
Extension of the existing street grid.
Existing Single Family Lots already created by the Housing Commission.
Preserved Vegetative Buffer
Dekrafft Ave
N
0'
50'
100'
200'

FOCUS AREA 2

Riverside Residential

There is a unique opportunity to develop Medium Density Residential housing on the east side of the Muskegon River south of Maple Street. Vacant parcels provide a compelling review of the river and are not far from Downtown.

Medium Density Residential housing types on these properties such as townhouses, multiple family dwellings, or small cottage courts would help increase the number of residential options within the City. The picturesque, convenient location is desirable for a variety of demographic groups with (1) the White Pine Trail being located just a block to the east of the site and (2) the Riverwalk Trail being located across the Maple Street Bridge to the west, recreational amenities would be abundant for new residents. Parts of Maple Street and 3rd Avenue are ripe for redevelopment and infill, providing employment opportunities nearby. This is a valuable opportunity to add more housing that would influence the local economy in a great location in the City of Big Rapids.

FOCUS AREA ②

View of the property from the Riverwalk trail. Access to the Muskegon River, trails, parks, the Maple Street corridor, and downtown make this an attractive site for housing.

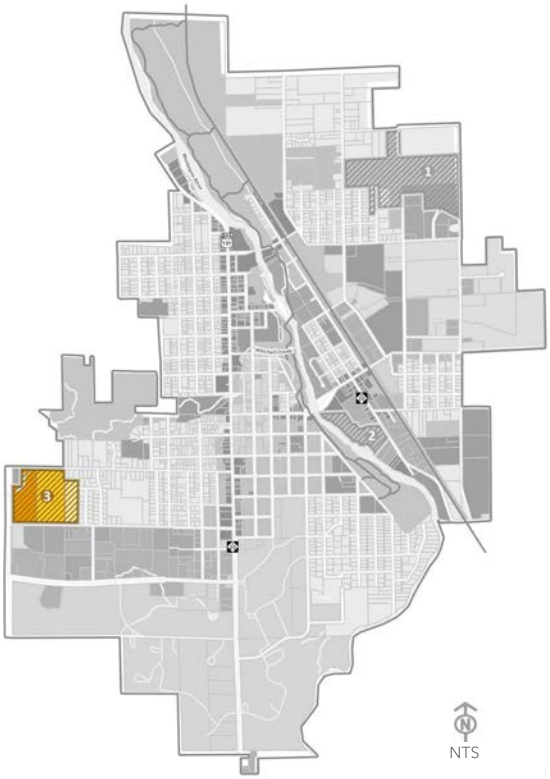
Pictured above is an example of a medium density community where two-story, multifamily dwellings and small footprint homes are configured to activate the riverfront and work with the existing natural features.

Below are examples of other medium density residential homes, including townhomes (left) and a two-family home (right).

FOCUS AREA 3

Parcels in between Woodward Avenue and Fuller Avenue

Residential development is primarily sought for the undeveloped parcels in the area near the western boundary of the City. Understanding that the existing neighborhood is zoned for single family housing, this site could contain a mix of Low Density, Medium Density Residential, and High Density Residential development moving from east to west. Medium and High Density Residential Development would match the existing denser development in the neighborhood south of Fuller Avenue and would create more housing types to accommodate people in various life stages, income levels, and desired housing types. Residential buildings on this site should use a similar street layout and sidewalk connectivity and architecture and character similar to the existing neighborhood. Considerations should also be made for green spaces and site lighting.



As the density changes, so too does the urban form. Higher density residential is a more efficient land use (more housing using less land) but relies on complete streets for walking, biking, and street parking, shared greenspaces for gathering and connection to nature, and needs more urban trees to compat the impacts of increased impervious surfaces. Because of the larger lots and greater spacing between units found in lower density housing, these developed areas should be organized to preserve valuable natural spaces and existing mature trees.

FOCUS AREA ③

The diagram below illustrates the transition from low to higher density envisioned for these parcels.

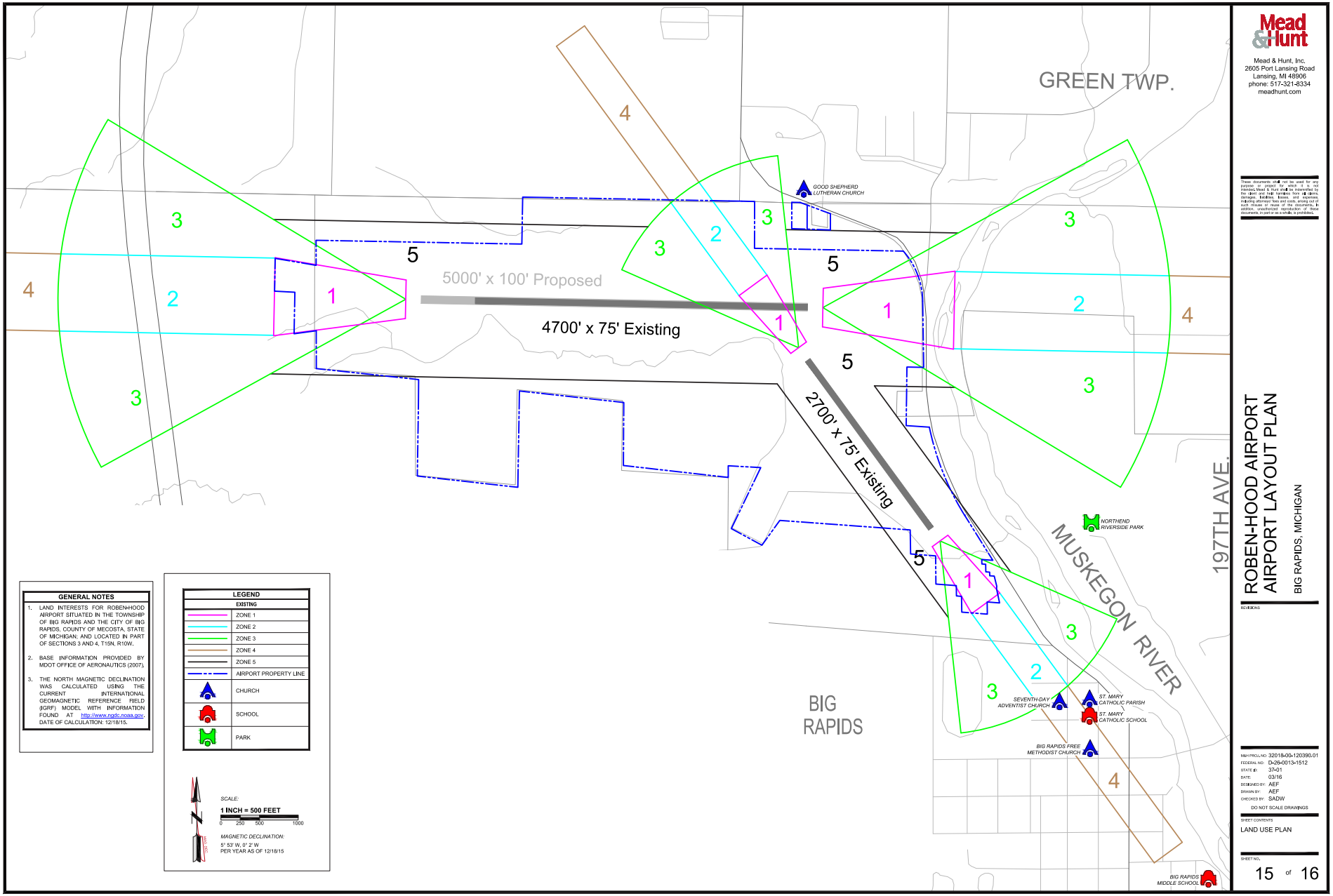
Focus Area ② Residential Density East to West

Roben-Hood Airport Approach Plan

The City of Big Rapids owns and operates the public airport. The airport is uncontrolled and is used for general aviation purposes. The Federal Aviation Administration National Plan of Integrated Airport Systems for 2017–2021 includes the facility as a basic general aviation facility.

The airport covers an area of 629 acres. The facility has an airport approach plan that was developed by MDOT in 2004. The airport approach plan considers how land is used in the vicinity of the airport to support safe aircraft operations and mitigate any potential negative effects on the surrounding community. The intent of the plan is manage the land surrounding an airport to ensure safety, efficiency, and minimal environmental impact.

The MDOT airport approach plan includes five accident safety zones that are identified in relationship to the airport runway and have a number of land use planning strategies that are meant to influence development and encourage safety. The airport approach plan and airport approach land use guidelines provided by MDOT are included on the subsequent pages.



Mead & Hunt
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 48906
phone: 517-321-8334
meadhunt.com

ROBEN-HOOD AIRPORT
AIRPORT LAYOUT PLAN

BIG RAPIDS, MICHIGAN

REVISIONS

MNPROJ.NO: 32018-00-120390.01
FEDERAL NO: D-26-0013-1512
STATE #: 37-01
DATE: 03/16
DESIGNED BY: AEF
DRAWN BY: AEF
CHECKED BY: SADW
DO NOT SCALE DRAWINGS

SHEET CONTENTS
LAND USE PLAN

SHEET NO.
15 of 16

Zone 1.

Land Use Guidelines:

» Population Density: Avoid land uses that concentrate people indoors or outdoors.

» Residential vs. Non-Residential Land Use: Prohibit all residential land uses.

» Special Function Land Use: Prohibit all special function land uses.

Land Use Planning Strategies:

1. **Population Density:**
    - Limit density to 0-5 people/acre.
    - Encourage airport sponsors to purchase property if possible.
    - Zone for uses that will be relatively unoccupied by people (e.g., mini-storage, small parking lots).
2. **Residential vs. Non-Residential Land Use:**
    - Create a height hazard overlay ordinance around the airport.
    - Obtain avigation and obstruction easements.
    - Shift structures away from the runway centerlines during site development.
    - Prohibit high overhead outdoor lighting.
    - Require downward shading of lighting to reduce glare.
    - Evaluate all possible permitted conditional uses to ensure compatibility.
3. **Special Function Land Use:**
    - Prohibit overhead utilities and all noise-sensitive land uses.
    - Zone land for uses other than schools, playfields, hospitals, nursing homes, daycare facilities, and churches.
    - Limit storage of large quantities of hazardous or flammable material.
    - Ensure permitted uses will not create large areas of standing water or generate smoke/steam.

Zone 2.

Land Use Guidelines:

» Population Density: Avoid land uses that concentrate people indoors or outdoors.

» Residential vs. Non-Residential Land Use: Prohibit all residential land uses.

» Special Function Land Use: Prohibit all special function land uses.

Land Use Planning Strategies:

1. **Population Density:**
    - Limit density to 0-5 people/acre.
    - Encourage airport sponsors to purchase property if possible.
    - Zone for uses that will be relatively unoccupied by people (e.g., mini-storage, small parking lots).
2. **Residential vs. Non-Residential Land Use:**
    - Create a height hazard overlay ordinance around the airport.
    - Obtain avigation and obstruction easements.
    - Shift structures away from the runway centerlines during site development.
    - Prohibit mobile home parks.
    - Landscaping should establish only low-growing vegetation.
    - Prohibit high overhead outdoor lighting.
    - Require downward shading of lighting to reduce glare.
    - Evaluate all possible permitted conditional uses to ensure compatibility.
3. **Special Function Land Use:**
    - Prohibit overhead utilities and all noise-sensitive land uses.
    - Zone land for uses other than schools, playfields, hospitals, nursing homes, daycare facilities, and churches.
    - Limit storage of large quantities of hazardous or flammable material.

- Ensure permitted uses will not create large areas of standing water or generate smoke/steam.

Zone 3.

Land Use Guidelines:

» Population Density: Avoid land uses that concentrate people indoors or outdoors.

» Residential vs. Non-Residential Land Use: Limit residential development to low-density housing standards. all non-residential land uses permitted outright, subject to Population Density and Special Function Land Use guidelines.

» Special Function Land Use: Prohibit all special function land uses.

Land Use Planning Strategies:

1. **Population Density:**
   - Limit density to <25 people/acre.
   - Zone land uses that, by nature, will be relatively unoccupied by people (e.g., mini-storage, small parking lots.)
2. **Residential vs. Non-Residential Land Use:**
   - Create a height hazard overlay ordinance around the airport.
   - Obtain avigation and obstruction easements.
   - During site development, shift structures away from the runway centerlines.
   - Prohibit mobile home parks.
   - Landscaping requirements shall establish only low-growing vegetation.
   - Prohibit high overhead outdoor lighting.
   - Require downward shading of lighting to reduce glare.
   - Evaluate all possible permitted conditional uses to ensure compatible land use.

3. **Special Function Land Use:**

    - Prohibit overhead utilities and all noise-sensitive land uses.
    - Zone land for uses other than schools, playfields, hospitals, nursing homes, daycare facilities, and churches.
    - Limit storage of large quantities of hazardous or flammable material.
    - Ensure permitted uses will not create large areas of standing water or generate smoke/steam.

Zone 4.

Land Use Guidelines:

» Population Density: Avoid land uses that concentrate people indoors or outdoors.

» Residential vs. Non-Residential Land Use: Limit residential development to low-density housing.

» Special Function Land Use: Prohibit all special function land uses.

Land Use Planning Strategies:

1. **Population Density:**

    - Limit density to <40 people/acre in buildings and <75 persons/acre outside buildings.

2. **Residential vs. Non-Residential Land Use:**

    - Create a height hazard overlay ordinance around the airport.
    - Obtain avigation and obstruction easements.
    - Cluster development to maintain density as long as open space remains unbuilt.
    - Place clustered development away from the extended runway centerline.
    - Prohibit mobile home parks.
    - Require downward shading of lighting to reduce glare.
    - Evaluate all possible permitted conditional uses to ensure compatibility.

3. **Special Function Land Use:**

   - Evaluate noise-sensitive land uses in light of aircraft noise contour lines when establishing new zoning.
   - Prohibit overhead utilities and all noise-sensitive land uses.
   - Zone land for uses other than schools, playfields, hospitals, nursing homes, daycare facilities, and churches.
   - Limit storage of large quantities of hazardous or flammable material.
   - Ensure permitted uses will not create large areas of standing water or generate smoke/steam.

Zone 5.

Land Use Guidelines:

» Population Density: Avoid land uses that concentrate people indoors or outdoors.

» Residential vs. Non-Residential Land Use: Prohibit all residential land uses.

» Special Function Land Use: Prohibit all special function land uses.

Land Use Planning Strategies:

1. **Population Density:**

   - Limit density to 0-5 people/acre.
   - Zone land uses that will be relatively unoccupied by people (e.g., mini-storage, small parking lots).

2. **Residential vs. Non-Residential Land Use:**

   - Create a height hazard overlay ordinance around the airport.
   - Obtain avigation and obstruction easements.
   - Shift structures away from the runway centerlines during site development.
   - Landscaping should establish only low-growing vegetation.
   - Prohibit high overhead outdoor lighting.
   - Require downward shading of lighting to reduce glare.

- Evaluate all possible permitted conditional uses to ensure compatibility.

3. **Special Function Land Use:**
    - Prohibit overhead utilities and all noise-sensitive land uses.
    - Zone land for uses other than schools, playfields, hospitals, nursing homes, daycare facilities, and churches.
    - Limit storage of large quantities of hazardous or flammable material.
    - Ensure permitted uses will not create large areas of standing water or generate smoke/steam.

Implementation

CHAPTER 8 IMPLEMENTATION

Achieving the vision outlined for the City of Big Rapids that is described in the Master Plan requires continuous, intentional implementation. The Plan describes the direction for growth, development, and positive change in the City, as determined by the results of the community engagement activities and feedback from the Steering Committee. The City must be proactive in pursuing the Plan's goals and objectives.

The strategies found in this chapter have been established as a framework that will drive the plan's implementation. This can be thought of as the Plan's "To Do" list. Descriptions of the implementation strategies are purposefully general to provide the City with flexibility in preparing specific work assignments and selecting what tasks to undertake within municipal operations. Each strategy is important to contributing to the achievement of the Plan's vision for the City of Big Rapids.

The City Council, Planning Commission, and City staff are given the primary responsibility for implementing these strategies and developing work assignments. Strategies may include special studies or assignments, ordinance revision or development, program review, planning activities, and/or administrative procedures. Additionally, some implementation strategies will require public and private investment and/or outside professional assistance while others may be integrated into the City's operations. The City will have to balance financial, political, and other factors in determining how and when to implement the strategies listed below.

Zoning Ordinance Revisions

The City of Big Rapids zoning ordinance is the primary implementation mechanism for this plan. The zoning ordinance is a law adopted by the City Commission that regulates land use and development in the City. Revisions to the zoning ordinance will be needed to transform many of this master plan's policies and recommendations into enforceable regulations that ensure new development is consistent with this plan.

Zoning ordinance revisions may be accomplished in one of two ways: (1) the City may opt to engage in a comprehensive revision of the entire zoning ordinance to implement many of these changes at once, or (2) it may follow a piecemeal approach targeted to specific issues, concerns, or points of conflict in the existing ordinance. As a general note, however, a comprehensive review of the zoning ordinance is recommended from time to time to incorporate new statutory requirements, case law, good planning practice, and to ensure that all parts of the document are working together appropriately.

Suggested revisions may include, but are not limited to, the following:

1. Changes to the zoning map to align with the future land use map, such as an evaluation of the Residential-Professional (R-P) or Restricted Residence (R-R) districts, and/or the creation of a neighborhood mixed use district.
2. Language to allow additional housing options such as accessory dwellings, live/work units, townhouses, rowhouses, and similar units that are compatible with the City's character, in appropriate locations.
3. Amendments to encourage dense development near transit service areas.
4. Standards that require or incentivize nonmotorized trail connections within new development and to the broader network.
5. Amendments to allow for mixed-use and mixed-density residential developments throughout the City, with particular emphasis on the Downtown and in some areas of the East Side neighborhood.
6. Changes to development review processes to ensure they are clear, fair, predictable, and lead to desired outcomes.
7. Development of appropriate commercial district standards to encourage and allow for highly desirable development such as mixed uses (specifically residential above retail) and business with active storefronts in the downtown, and along streets like State Street and Maple Street. These desirable uses should be permitted by right and/or with administrative approval.

The Planning Commission is primarily responsible for the tasks involved in implementing this strategy with significant support from staff, and possibly outside support. Several of the changes proposed in a revised ordinance will likely generate public interest and discussion, so public input should be solicited at several points throughout the process. While the Planning Commission will be the primary proponent of this effort, the City Commission will have final approving authority over any changes made to the Zoning Ordinance.

Housing

Big Rapids needs more affordable housing. There are a variety of demographic groups that are seeking to call the City home, whether for a few years or permanently. Families, retirees, students, and young professionals all want to live here. The City should follow the recommendations in this plan that have been developed based on feedback from the community to encourage more residential development including tiny homes, attached single family housing like duplexes or triplexes, and accessory dwelling units, or "ADUs." By working with property owners and developers, the City should be able to facilitate discussions using the information found in this plan along with the City's Zoning Ordinance. By following the narrative in Chapter 6 Land Use, including the highlighted "Focus Areas," and the future land use map (Map 22), the Planning Commission should be well-informed in guiding the placement and composition of various residential developments in the City.

Future Land Use Map Focus Areas Development

More specifically, the future land use map (Map 22) contains three Focus Areas that are being considered for future residential development. These sites are:

- Focus Area 1: City of Big Rapids & Big Rapids Housing Commission Future Housing Site
- Focus Area 2: Riverside Residential Focus Area
- Focus Area 3: Parcels in between Woodward Avenue and Fuller Avenue.

The City should work closely with the property owners to identify timeframes for possible development, evaluate market conditions, address local concerns, and understand property owner preferences and desires. While this document contains conceptual images for the type of development desired on these parcels, additional work will be needed to create plans that balance the desires of the City, landowners, and the public. Care should be taken to ensure that marketing efforts for these properties coincide with the ability and interest of the property owner to develop them.

Complete Streets

This master plan supports a complete streets policy for the City of Big Rapids. A complete streets policy encourages a design approach that enables safe travel for multiple modes of transportation including vehicles, pedestrians, bicycles, and public transit. Through this approach, thoroughfares are planned, designed, and constructed to allow safe access for all types of users and modes of transportation within

The City's primary objective will be to work with surrounding communities and the MDOT to promote healthy lifestyles for people of all ages, abilities, and life circumstances. Sidewalks on both sides of a street, bike infrastructure, and other features will be promoted when appropriate. Complete streets can result in increased safety for all road users, improved public health, a cleaner environment, mobility equity, and enhanced quality of life through more inviting streets.

Another key motivation to enact complete streets policies is that Michigan law encourages MDOT to give additional consideration to grant applicants with these policies. This also helps clarify the City's intent of developing a connected, safe, inclusive transportation system that supports vulnerable road users, especially people who bike, walk, and roll, when working with MDOT to make changes to state-owned roads. Knowing that the public supports improvements that slows down vehicular traffic in areas in residential and certain commercial areas and mixed-use areas like in the Downtown and along portions of State Street and Maple Street will help the City craft a transportation network that will support the evolution of the identity of Big Rapids. The Michigan Planning Enabling Act has also been amended to stipulate

that transportation improvements be respectful of the surrounding context, further ensuring that more equitable and attractive streets become a reality.

The City is also interested in expanding their design guidelines in a meaningful, implementable away. Understanding that a set of recommendations and principles can be used to create a consistent and specific character in a community, the City can also pursue developing this kind of document. These can be developed for a certain district, in support of a certain kind of development or land use, and can be general or detailed. They should also be developed to guide and meet the City's needs in support of implementing the vision of this master plan.

Nonmotorized Infrastructure Improvements

The City has recommendations for the development of a nonmotorized network in Chapter 5 of this master plan document. Based on the previous nonmotorized plans developed in 2012 and updated in 2019 by classes at Ferris State University, the information found in this plan provides a revised focus on completing the network based on public feedback collected during the engagement phase. This rich, informed framework provides a foundation for the development of the proposed network within the City's rich residential neighborhoods and centralized Downtown as shown on Map 20. The City should work to implement these upgrades as financial resources and staff capability are available, and following a capital improvement plan. The City should examine these recommendations and be poised to take advantage of any local resurfacing or reconstructing projects, MDOT construction projects, or other opportunities that may become available.

All infrastructure development should be planned, designed, and constructed using the regulations from the AASHTO Guide for the Development of Bicycle Facilities Fifth Edition and the Manual on Uniform Traffic Control Devices 11th Edition.

Funding Nonmotorized Improvements

The Safe Routes to School program can be used to design and construct any nonmotorized infrastructure that provides a connection from a school to a neighborhood. The Michigan Fitness Council runs the statewide program that can provide planning and construction grants for routes that provide a new or improved nonmotorized infrastructure connection to a school. The Safe Routes to School program helps students bike, walk, and roll to school safely, unities neighborhoods, and increases students' ability to learn. Through infrastructure improvements, safety education, and incentives, kids are encouraged to get to school by means other than riding in a car.

The City may be eligible to pursue the United States Department of Transportation Safe Streets for All (SS4A) grants. The Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program with $5 billion in appropriated funds over 5 years, 2022-2026. The SS4A program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. These grants are for developing safer transportation infrastructure, especially for people who bike, walk, and roll, like sidewalks, intersection improvements, and other construction projects. The City needs to have their own or be a part of a multi-jurisdictional SS4A Action Plan to be eligible.

The City can also seek Michigan Department of Transportation Transportation Alternative Program grant funds, also known as TAP funds. TAP is a competitive grant program that uses federal transportation funds designated by Congress for specific activities that enhance the intermodal transportation system and provide safe alternative transportation options. A guidebook is available online to help communities apply for the grant. Before pursuing a grant, a community liaison is recommended to talk to a MDOT TAP grant coordinator.

If developing a recreational off-road paved or unpaved trail, the Michigan Department of Natural Resources Trust Fund Grant is a viable alternative program. Local units of government are eligible to peruse the program for outdoor recreation projects provided that they have an approved and up-to-date 5-Year Parks and Recreation Plan on file with the DNR . Contact a DNR State grant coordinator for more information. Trust fund grants can be used for land acquisition or construction if the land has already been acquired.

Pure Michigan Trail Town Designation

The City of Big Rapids was designated a Pure Michigan Trail Town by the Michigan Department of Natural Resources in 2022. Criteria to receive this notification includes providing a quality trail town experience, clear information for trail users, and a sustainable maintenance and marketing plan. Trails in the community should be easily accessible to users with convenient connections to residential and commercial neighborhoods, parks, scenic areas, other trail networks and significant destinations. Support facilities including parking, restrooms, and emergency phones accessible within the City should be provided. The distinction of being a Pure Michigan Trail Town is a significant honor, as the City can use this formal designation on marketing and promotion materials, highlighting the vibrant outdoor recreational offerings and resources. This can help drive tourists to Big Rapids, especially those seeking a positive trail experience. Pure Michigan Trail Town signage can be posted within City limits following program guidelines.

Grow "Town/Gown" Relationship with Ferris State University

Communities that have an institution of higher education are special places. These communities, often referred to as "the Town," are presented with opportunities with the influx of young people each fall to resume studies at colleges and universities, referred to as "the Gown." The community calendar explodes and energy flows with the beginning of each semester. Town residents enjoy the arts and athletic venues associated with colleges and universities. A buzz of excitement and energy surrounds this unique relationship. The allure of retiring in an environment of academic growth is attractive to many retirees.

In addition to the benefits, towns that host institutions of higher learning tend to have unique challenges. An influx of college students in neighborhoods and downtown areas presents issues associated with alcohol use, noise, traffic, housing, and parking. Often these challenges can grow into conflict and unique remediation techniques are helpful to alleviate stress in the relationships between students, local homeowners, city officials, and higher education officials.

Coordination is the ideal level of collaboration to strive for in the Town/Gown relationship. Coordination among students, university staff, permanent City residents, City leaders, and local government staff needs to be ongoing and in-depth. This includes the sharing of information and resources and regular meaningful communication. Communities engaging in these practices are those most successful in minimizing conflicts such as student misbehavior, erosion of single-family neighborhoods, and the effects of campus expansion and development on local infrastructures.

Of equal importance is communication with the neighboring institution of higher education. In the case of Big Rapids, this is Ferris State University. Understanding the history and culture of the university, students, faculty and staff, as well as the City and its residents, along with the physical aspects of the broader community the two comprise, are all important for an accurate analysis of the causes of conflict and to provide a basis for enduring solutions.

The City and the University should explore establishing a mutually beneficial committee to reestablish the historically open, positive relationship that has existed between these two entities. The International Town Gown Association (ITGA) provides resources, support, or model or peer relationships to places that are seeking to build a connection between the college campus and community. ITGA convenes gatherings, educates members and partner organizations, researches topics of concern, shares knowledge, and mobilizes members to ensure the success of communities around the world. Economic development, sustainability, student housing, diversity and inclusion, quality of life, and civic engagement are among the many topics that ITGA addresses. Through its knowledgeable staff and professionally accomplished members, ITGA helps campuses and communities stay on top of current issues. The City and University can identify a few local leaders to begin discussions and lay the groundwork for building a relationship that will benefit the greater Big Rapids community.

Neighborhood and Property Maintenance Strategy

The City contains an impressive mix of new and older housing styles and types laid out in traditional urban and suburban patterns. While many homes are in good condition, some properties in most neighborhoods need some level of investment and maintenance. The City can help facilitate information on basic residential repair and maintenance information and obligations outlined in the Code of Ordinances. Additionally, the City can inspire property upkeep by investing in public spaces like sidewalks, bike lanes, and streets to ensure that these vital public facilities are safe, accessible, and usable. The City can also explore partnerships to connect groups such as veterans, older adults, low-income households, and the disabled population with resources to assist them in maintaining their properties.

Furthermore, the City should continue to find resources and locations to expand streetscape improvements and beautification beyond Downtown. Residents and business owners have commented on how the addition of flowers seasonally to Michigan Avenue in Downtown creates an inviting atmosphere. Locals have asked for this idea to be expanded to other locations in the City. Other enhancements may include upscale lighting fixtures, the continuation of art installations, and other street furniture. Finding ways to do this may draw people to other corridors and neighborhoods, further supporting business growth and development, along with residents and visitors looking for commercial and retail services.

Plan Updates

The Plan should be reviewed periodically by the Planning Commission. At a minimum, the land use portion should be reviewed annually and, following the state law, updated at least every five years. An annual review allows the City to stay on track to implement the Plan's recommendations as well as note any changes that may need to be made when the time comes for a significant update. A periodic review of the Plan also ensures that it stays current and relevant.

Implementation Timeline

The timeline provides a roadmap for implementing recommendations found in the plan. The table includes a variety of categories, which are defined below.

Task: The specific assignment to be implemented and accomplished. A narrative for the task is specified in the previous section of this chapter.

Timeframe: The period of time in which a task should be started. Time frames can vary in length and may be influenced by the priority level and perceived complexity. Defined as "near-term," "mid-term," or "long-term."

Party: Group(s) that would be involved in leading this task.

Priority: How important the accomplishment of a task is to implementing the Plan's vision. Defined as "Low," "Medium," or "High."

Perceived Complexity: The perception of how easy or difficult the completion of a given task may be based on factors such as financial resources, political support, the number of different agencies involved, construction, staffing, and others. Defined as "Simple," "Moderate," or "Complex."

Table 8.1 | Implementation Table

Task	Timeframe	Party	Priority	Perceived Complexity
Plan Update	Every 5 years	Planning Commission	High	Simple
Update Zoning Ordinance	Near-Term	Planning Commission	High	Complex
Installation of streetscape enhancement like flowers, flower beds, decorative light fixtures, and other street furniture in locations beyond Downtown	Near-Term	City Staff, City Commission	Medium	Simple
Support Residential Development	Near-Term	City Staff, Planning Commission	High	Complex
Future Land Use Map Focus Areas Development	Mid-Term	City Staff, Planning Commission	Medium	Complex
Complete Streets	Mid-Term	City Staff, City Commission	Low	Simple
Building the Nonmotorized Network (completing the sidewalk network, installing bike lanes, improve intersections/road crossings)	Mid-Term	City Staff, City Commission, City Administrators, MDOT*, DNR*	Medium	Complex
Neighborhood and Property Maintenance Strategy	Long-Term	City Staff, Local Landowners	Low	Moderate
Grow "Town/Gown" Relationship with Ferris State University	Near-Term	Community Leaders, City Department Heads, Municipal Officials, Chamber of Commerce, Ferris State University Leaders	Medium	Moderate
Use Pure Michigan Trail Town Designation	Near-Term	City Staff, Chamber of Commerce	Low	Simple
Development of Design Guidelines	Long-Term	City Staff, Planning Commission	Low	Moderate

*Potential partners based on ownership, facility type, and funding (grant) resource

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Appendix

Big Rapids
Master Plan

Community Engagement Report

Fall 2023


Big Rapids
Master Plan