



FORT GRATIOT TOWNSHIP

2020-2025 MASTER PLAN

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TABLE OF CONTENTS

Chapter 1: Introduction Page 1-1

Regional Setting	1-2
History of Fort Gratiot Township	1-4
Regional Access	1-4
Regional Influences	1-4
Planning in Neighboring Communities	1-7
Purpose of the Master Plan	1-8
Relationship between the Master Plan and Zoning	1-8
Reviewing and Updating the Master Plan	1-8

Chapter 2: Township Profile..... 2-1

Population Background.....	2-2
Population Projection	2-3
Households Overview	2-6
Housing Characteristics.....	2-7
Economic Resources	2-10
Geography and Environmental Resources	2-17
Community Facilities and Infrastructure	2-30

Chapter 3: Transportation..... 3-1

Regional Transportation Overview	3-2
Road Network in Fort Gratiot Township.....	3-3
Traffic Volume.....	3-6
Traffic Crash Assessment	3-8
Key Corridors in Fort Gratiot Township	3-8
Pavement Surface Evaluation and Rating (PASER)	3-8
Proposed Road Improvements	3-11
Public Transportation.....	3-11
Non-Motorized Transportation	3-12

Trails and Greenways.....	3-15
Airport	3-19
Railroads.....	3-20

Chapter 4: Future Land Use Plan 4-1

Introduction to Future Land Use Planning.....	4-2
The Concept Plan	4-2
The Future Land Use Plan for Fort Gratiot Township	4-3
The Future Land Use Map	4-10

Chapter 5: Zoning Plan..... 5-1

Definition of a Zoning Plan.....	5-2
The Relationship between the Master Plan and Zoning	5-3
An Overview of Zoning Districts and Dimensional Standards	5-3
Relationship between Future Land Use and Zoning.....	5-3
Ensuring Rezoning are Consistent with the Master Plan	5-6
Recommended Text Changes to the Zoning Ordinance	5-7

Chapter 6: Goals and Implementation..... 6-1

Purpose of the Master Plan	6-2
Determining Policy.....	6-3
Planning Goals and Strategic Actions	6-4
From Goals to Implementation.....	6-9
Master Plan Review and Amendments.....	6-10
Implementation	6-10

Chapter 7: 2018-2022 Parks and Recreation Plan..... 7-1

Community Description	7-2
Administrative Structure.....	7-9
Recreation Inventory	7-12
Planning Process and Public Input	7-34
Goals and Strategic Action Plan	7-38

1

INTRODUCTION



IN THIS CHAPTER:

- ▶ REGIONAL SETTING
- ▶ HISTORY OF FORT GRATIOT TOWNSHIP
- ▶ REGIONAL ACCESS
- ▶ REGIONAL INFLUENCES
- ▶ PLANNING IN NEIGHBORING COMMUNITIES
- ▶ PURPOSE OF THE MASTER PLAN
- ▶ RELATIONSHIP BETWEEN THE MASTER PLAN AND ZONING
- ▶ REVIEWING AND UPDATING THE MASTER PLAN



A view of North River Road Park along the Black River. Source: Robert Lee Hall Photography

REGIONAL SETTING

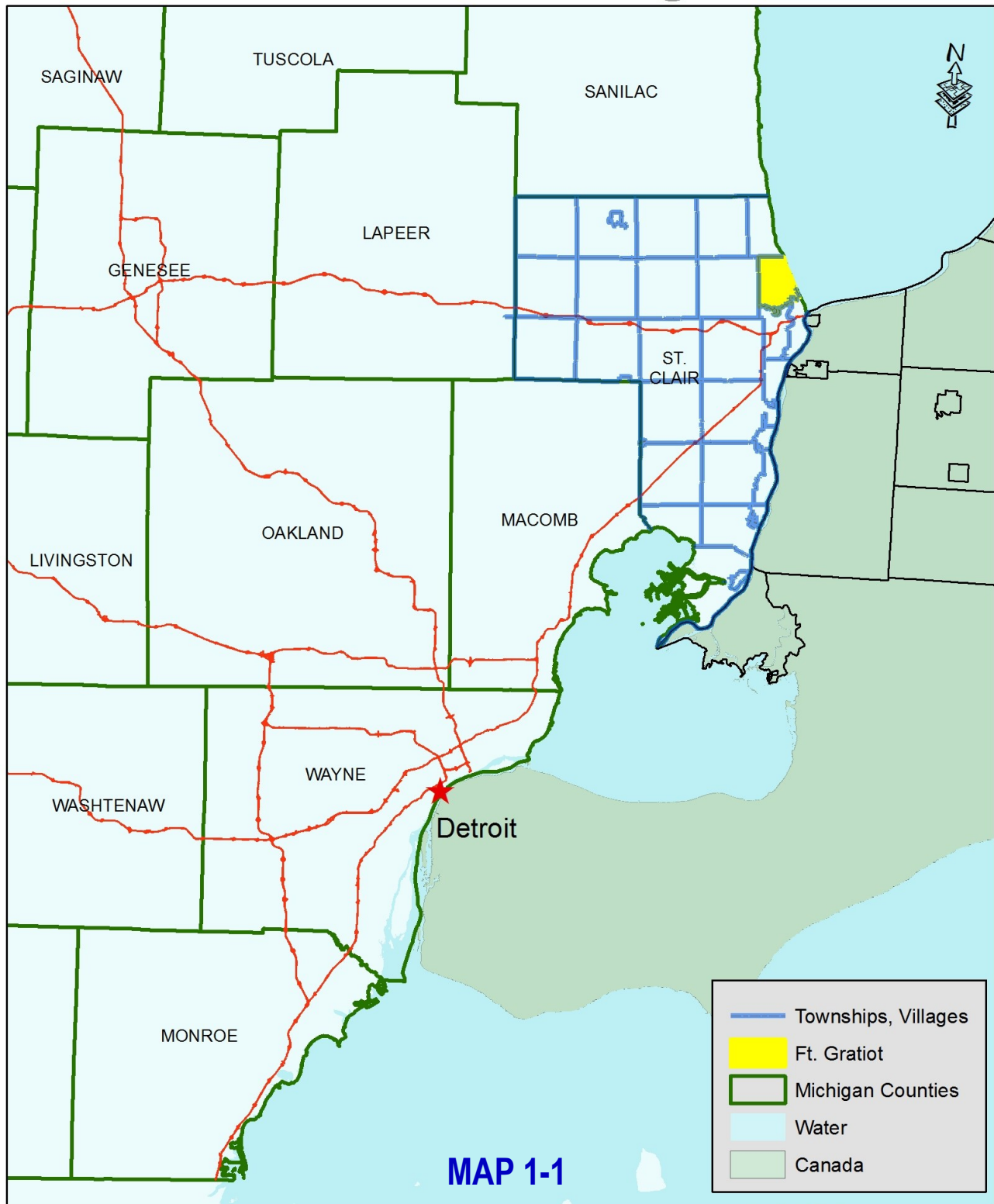
Many factors influence the growth and development of a given community. Some relate to local decisions and can be controlled by the local community; others result from actions and/or developments outside the community and are therefore, subject to less local control. In turn, the influence of actions and/or developments outside the community depends on the position of the community within the larger surrounding region. This position is a factor that cannot be changed, but must be recognized and accommodated. Furthermore, local actions and developments that have occurred in the past influence current local and regional actions and developments and as such, community growth and development. Local policies and decisions impacting land use, therefore, should take these regional and historical influences into account in order to be relevant and effective.

Regional Location

Fort Gratiot Township is situated in northeastern St. Clair County, one of the seven counties making up the Southeast Michigan region, which is the most heavily populated region of the state. The Township is located on the shores of Lake Huron and the Black River, adjacent to the north of the City of Port Huron (the county seat), and is located approximately 60 miles east of Flint and approximately 60 miles northeast of downtown Detroit. The Township is bordered by Burtchville Township to the north, Clyde Township to the west, and Port Huron Township and the City of Port Huron to the south. The Black River, running west from the City of Port Huron along the Township's southern border, forms the common boundary between Fort Gratiot Township and Port Huron Township.

Other nearby communities include the unincorporated Village of Lakeport, located roughly two miles north of Fort Gratiot Township, the Village of Lexington, located about 13 miles north of the Township, the Village of Emmett, located 12 miles to the west, and the City of Marysville, located about five miles south of the Township.

Regional Area



HISTORY OF FORT GRATIOT TOWNSHIP

The original settlement of the Port Huron area, including what is now known as Fort Gratiot Township, occurred in the latter portion of the 17th Century. This settlement was related to the location of the area along the St. Clair River at the southern end of Lake Huron. The location had an obvious strategic value for military, as well as commercial purposes. Direct access to the river and lake was a major asset to the area's first commercial activities: fur trading and lumbering. The emergency of the railroad as an important form of transportation in the mid-1800's also served as a catalyst to growth in the area as Port Huron was located on major rail corridors linking St. Clair County with other developing population centers, including Chicago and Detroit.

Fort Gratiot Township became a recognized governmental unit in 1866. Development in the Township for many years was limited to the establishment of homes along the Lake Huron shoreline and farming in the interior portions of the community. A limited amount of non-farm residential growth also occurred along the section line roads that served the township.

During the second half of this century, the pace of growth accelerated in the township. As was the case earlier, much of this development was concentrated along two of the Township's most scenic areas: the Lake Huron and Black River shorelines. The lake also attracted tourists to the area, many of whom eventually developed summer cottages in the Township. In 1977, the Township was changed from a general law township to a charter township.

In the last 35 years or so, extensions of water and sewer lines into the Township from Port Huron have allowed interior portions of the Township to be converted from farms to suburban residential subdivisions and to commercial developments. One of the most notable commercial developments is the Birchwood Mall, which opened in 1991. The mall is notable not just for being the largest commercial development in the county, but also for being the catalyst for extensive commercial development in the Township during the 1990's.

REGIONAL ACCESS

Fort Gratiot Township can be reached from the north and south via state trunkline M-25, which runs completely through the east side of the township. M-25 also connects the township to the eastern termini of Interstate 94 (the expressway link between Detroit and the Port Huron/Sarnia, Ontario area) and Interstate 69 (the expressway link between Flint and the Port Huron/Sarnia area), located just two miles south of the Township in the City of Port Huron. State trunkline M-136, which follows portions of Pine Grove Avenue and Keewahdin Road, provides access to the township from the northern and western parts of the county, connecting with M-19, which runs in a north-south direction.

Additionally, North River Road provides access from the west and southwest (via Lapeer Road and Wadhams Road). State Road provides additional access from the north (from Burtchville Township), and Gratiot Avenue provides additional access from the south and the City of Port Huron. Because of the limited number of bridge crossings over the Black River, there is no direct access to the Township from Port Huron Township.

REGIONAL INFLUENCES

There are several major regional free market and governmental influences on the growth and development of Fort Gratiot Township. These regional influences are:

- Labor markets in Metropolitan Detroit



- ▶ The St. Clair County Metropolitan Planning Commission (SCCMPC)
- ▶ The Southeast Michigan Council of Governments (SEMCOG)

FORT GRATIOT LABOR MARKETS

St. Clair County is part of the Detroit Metropolitan Area, which is a region that has experienced some economic challenges due to major changes in the global automotive industry, which had provided the region with jobs for decades. Fort Gratiot Township lies near the northeastern fringe of this region. Manufacturing employment tied to the production of automobiles has decreased, affecting the incomes and lifestyle of residents in the region, as well as having direct impacts on the regional housing market.

Fort Gratiot is within easy access to employment in St. Clair County and the Metropolitan Detroit area. Employment opportunities exist locally due to the increase of healthcare jobs with the expansion of McLaren Port Huron and the addition of the Karmanos Cancer Institute.

St. Clair County Metropolitan Planning Commission

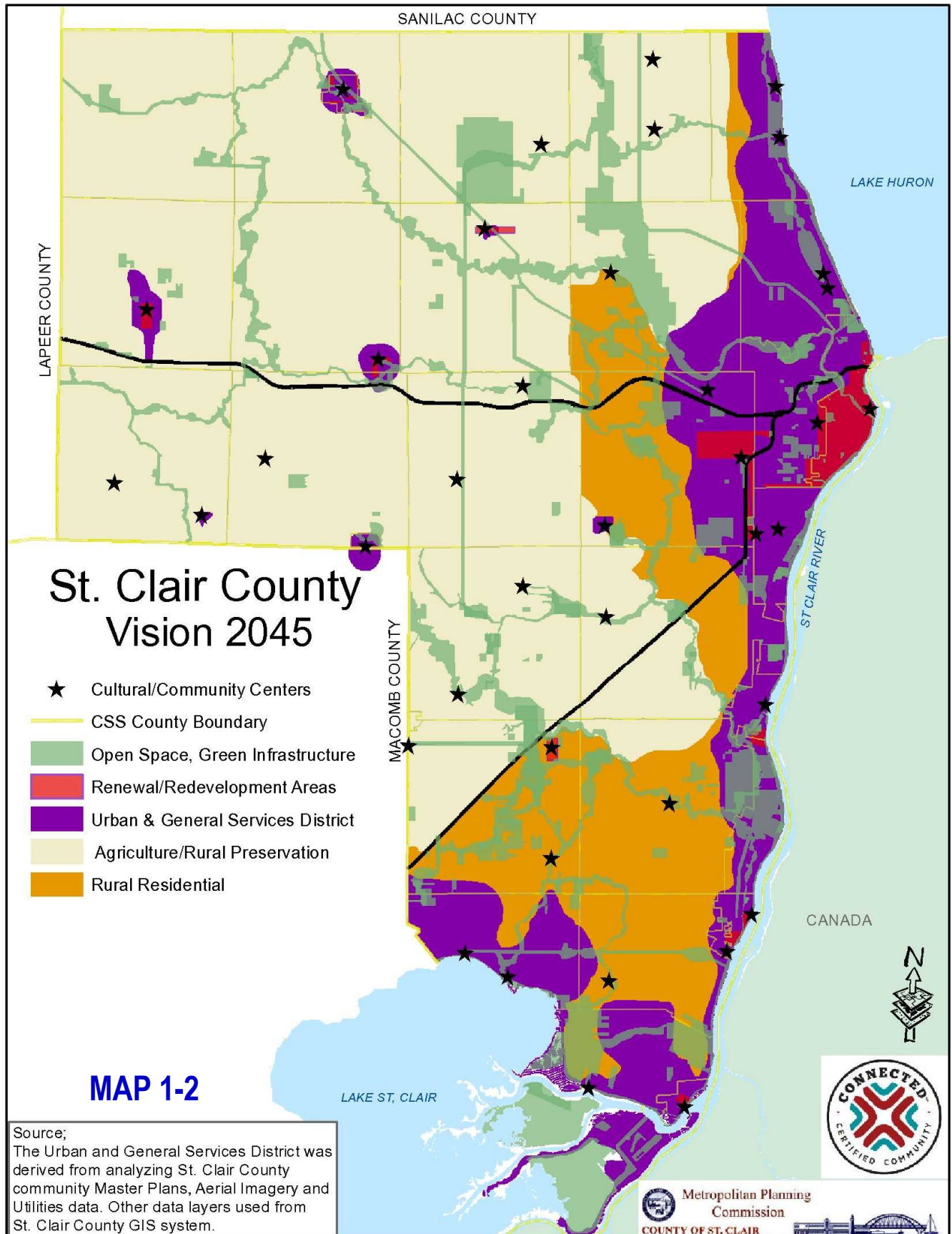
The St. Clair County Metropolitan Planning Commission (SCCMPC) carries out regional planning functions, which include:

- ▶ Coordinating local planning and zoning efforts;
- ▶ Providing planning assistance to local units of government;
- ▶ Directing transportation planning and programming for the county;
- ▶ Implementing the St. Clair County Master Plan; and
- ▶ Working collaboratively with other entities in the region to facilitate sustainable economic development.

To fulfill its coordination function, the SCCMPC adopted the St. Clair County Master Plan in November 2016. The plan addresses certain planning concerns in St. Clair County as a whole through 2035. These concerns include land use and change management, the environment, the economy, transportation, and public facilities and services.

The St. Clair County Master Plan includes the “Vision-Based Policy” Map (see Map 1-2), which indicates that Fort Gratiot Township is located within the Urban and General Services District (UGS). Key characteristics of the UGS district are:

- ▶ The highest density development within the next 20 or so years occurs within a proposed Urban and General Services Districts (UGSDs). This district is located primarily along the shoreline in a band of about one to three miles wide. Sewer, water, and other services are not extended beyond the district boundary,



except in, or adjacent to small cities and villages.

- ▶ The UGSD represents target areas for directing new growth needing a full range of public services in a managed, phased, incremental manner.
- ▶ The UGSD is comprised of higher density areas, with existing water/sewer service or planned water/sewer service within the next 20 years.

SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS

St. Clair County is in the Southeast Michigan Council of Governments (SEMCOG) region. SEMCOG plays an active role in providing planning-related data, transportation modeling and regional planning to its member municipalities. SEMCOG also reviews local applications for federal and state funding to ensure that the local projects for which funds are sought are consistent with regional planning efforts.

PLANNING IN NEIGHBORING COMMUNITIES

In addition to the wider regional influences given above, planning and zoning efforts in neighboring communities can influence the Township's growth and development. For example, if land in a neighboring community is zoned/used for light-industrial purposes, it would be advisable for the township to designate its land that abuts such an area as a compatible use, as opposed to an incompatible use. As noted above, there are four communities that share a common boundary with Fort Gratiot Township: Burtchville Township to the north, Clyde Township to the west, and the City of Port Huron and Port Huron Township to the south.

BURTCHVILLE TOWNSHIP

The comprehensive Master Plan for Burtchville Township, Michigan (Adopted, 2004) indicates that the land along the north side of Metcalf Road east of M-25 is planned for single family residential uses, except for the immediate Lake Huron shoreline, which is planned as open space. West of, and immediately adjacent to M-25, the land along the north side of Metcalf Road is planned for commercial uses. Continuing westward to State Road, the land is planned for single-family residential and mobile home park uses. Between State Road and Campbell Road, the land is planned for single-family residential uses. The existing land use is similar to these Burtchville Township planned land uses.

CLYDE TOWNSHIP

Clyde Township is generally rural in nature and the influence of development is limited by the presence of agricultural and rural residential existing land uses along the boundary with Fort Gratiot Township. The Clyde Township Land Use Plan (dated 2004) calls for rural/agricultural uses along almost the entire boundary, except for a small area at the Black River, which is planned for low-density residential uses.

PORT HURON TOWNSHIP

The influence of development activities in Port Huron Township to the south is limited by the Black River, which forms the common boundary between the two townships. The Port Huron Township Master Plan indicates that the area along the river's banks is planned for low density residential and parks and recreation uses. Most of the land in this general area is designated for single-family residential development.

CITY OF PORT HURON

Perhaps the strongest influence from surrounding communities will come from the City of Port Huron to the south. These two communities share an uneven boundary along Gratiot Avenue, Krafft Road, and the Black River Canal,

as well as portions of Pine Grove Avenue. The City of Port Huron Master Plan (adopted in 2017) indicates that the area along the Fort Gratiot boundary is planned for Single-Family Residential along the easternmost portion of this southern boundary, beginning at the Krafft Road and Gratiot Avenue intersection and running right up to the Lake Huron shoreline. As you travel west along the Krafft Road boundary, Port Huron has a larger section of land intended for institutional and school uses. As you continue to travel west along Krafft Road, the land is planned for residential uses again, single-family abutting the school-zoned land and multiple-family directly to the west of that. The western boundary just south of Fort Gratiot Township is an area of land planned for commercial uses between Aspen Drive and 24th Avenue. All planned uses are similar to the existing land uses.

PURPOSE OF THE MASTER PLAN

The Fort Gratiot Township Master Plan defines the existing and proposed future character of the Township. Its primary function is to allow the Township to comprehensively describe the goals and policies for its physical development. This Master Plan is intended to guide township officials and citizens in making decisions about public facilities and the use of public and privately owned land.

The Fort Gratiot Township Master Plan was prepared under the provisions of the Michigan Planning Enabling Act (Public Act 33 of 2008), which gives local planning commissions the authority and obligation to prepare and officially adopt a master plan. The plan is comprised of text and supporting maps; however, the most significant map is the future land use map, which shows the location and relationship of land in the Township for the next twenty years.

RELATIONSHIP BETWEEN THE MASTER PLAN AND ZONING

The Michigan Zoning Enabling Act, Public Act 110 of 2006, provides that "the zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability" and "to limit the improper use of land." This Master Plan is adopted to help provide a strong legal basis for the Township's zoning ordinance and thus contains a zoning plan element which details the zoning district and use regulations of the ordinance.

However, adoption of the master plan does not directly control land use. Such control is left to the zoning ordinance (including the zoning map), to land division regulations, and to other local ordinances. Implementation of the master plan is carried out through final decisions on rezonings, special land use permits, site plan and plat approvals, as well as by the expenditure of township funds on various capital improvements.

REVIEWING AND UPDATING THE MASTER PLAN

In accordance with the Michigan Planning Enabling Act (Public Act 33 of 2008), the Fort Gratiot Township Master Plan, along with the five-year parks and recreation plan, will be reviewed every five years and, if necessary, will be updated to remain a viable document. There is constant change in the township's economic, demographic, and social character, which warrants revising the plan to reflect the latest trends relative to long-range goals. If circumstances necessitate a change to the plan prior the five-year review, then the plan will be amended as necessary.

2

TOWNSHIP PROFILE



IN THIS CHAPTER:

- ▶ POPULATION AND HOUSEHOLD CHARACTERISTICS
- ▶ HOUSING CONDITIONS AND TRENDS
- ▶ ECONOMIC INFLUENCES AND TRENDS
- ▶ GEOGRAPHY AND ENVIRONMENTAL RESOURCES
- ▶ EXISTING LAND USE OVERVIEW
- ▶ COMMUNITY FACILITIES AND INFRASTRUCTURE

DEMOGRAPHIC AND ECONOMIC OVERVIEW

INTRODUCTION

The population profile paints a statistical picture of the population of Fort Gratiot Township. A profile of the current population of the Township is an important component of the planning process, as it establishes a framework on which to base the plan. Such a profile can help determine whether or not the current pattern of land uses within the Township and the facilities of the Township are sufficient to meet the needs of the population as currently composed. Any deficiencies in the current land uses or facilities can be addressed by this master plan. For example, if the population profile indicates a large number of senior citizens and the inventory of community facilities indicates a lack of senior facilities in the Township, then there is probably a deficiency in this kind of facility.

POPULATION BACKGROUND

In the 68 years from 1950 to 2018 the population of Fort Gratiot Township increased by 8,331 persons for an overall growth rate of over 239 percent. The largest portion of this growth took place throughout the 1950's when the population grew by 2,109 persons. This translates to a growth rate of over 60 percent for that decade. However, during the most recent span, from 2010 to 2018, the Township went through its slowest period of growth, with the population growing by 702, a gain of over six percent so far this decade. The average population growth per decade for the Township is 1,041 persons, for an average growth rate per decade of 17.8 percent. See Table 2-1.

Table 2-2: Township's Share of County Population

St. Clair County		Fort Gratiot	
Year	Population	Change	Percent Change
1950	91,599	3,479	3.8%
1960	107,201	5,588	5.2%
1970	120,175	7,075	5.9%
1980	138,802	8,496	6.1%
1990	145,607	8,968	6.2%
2000	164,235	10,691	6.5%
2010	163,040	11,108	6.8%
2020	160,710	12,197	7.6%
2030	163,816	12,299	7.5%
2040	166,922	12,617	7.6%
2045	166,185	12,493	7.5%

SOURCE: U.S. Bureau of the Census, SEMCOG 2045 Forecast

TABLE 2-1: TOWNSHIP POPULATION, 1950 TO 2018

Year	Population	Change	Percent Change
1950	3,479	----	----
1960	5,588	2,109	60.6%
1970	7,075	1,487	26.6%
1980	8,496	1,421	20.1%
1990	8,968	472	5.6%
2000	10,691	1,723	19.2%
2010	11,108	417	3.9%
2015	11,669	561	5.1%
2018	11,810	141	1.2%
Average Change Per Decade		1,041	17.8%

SOURCE: U.S. Bureau of the Census

In 2010, the Fort Gratiot Township population of 11,108 amounted to nearly seven percent of the population of St. Clair County, which consisted of 163,040 residents in 2010. Overall, this ratio appears to have increased over time; however, there were small dips reported as well. The projected ratios for the next three decades are expected to remain fairly steady with minor fluctuations, similar to those reported over the previous years. The forecasted population of Fort Gratiot in comparison to St. Clair County is anticipated to experience slight ebb and flow repetition over the next 35 years as depicted in Table 2-2.

By 2020, Fort Gratiot's share is expected to increase to 7.6 percent of the County's entire population, drop slightly by 2030 to 7.5 percent, rise again slightly, back to 7.6 percent in 2040 and drop back down to 7.5 percent of the County's share in 2045. Rather than assuming the 2010 ratio will hold constant, these forecasted numbers are used not only to reduce the potential for inadvertently biasing the projections as well as providing an additional perspective. The Southeastern Michigan Council of Governments (SEMCOG) 2045 Regional Development Forecast indicates that the population of the County is expected to grow to 160,710 by 2020, 163,816 by 2030, and 163,816 in 2040; however, it is projected to decline by nearly 740 by 2045, with a projection of 166,185 people in the County. Each of these population forecasts will be multiplied by the corresponding projected shares of the County population to calculate the share of county population projections given above.

POPULATION PROJECTION

The future land use plan is directly related to the 2040 population projection for Fort Gratiot, making this projection one of the most significant components in the planning process. The historical growth of the Township can provide a basis for future estimates. Population projections should be viewed as a guide for the master plan and not as an overarching goal. Thus, as Fort Gratiot examines its total population growth, the future land use plan for the community can be accelerated or decelerated as the level of growth determines. For example, if the level of population expected in Fort Gratiot in 2040 occurs by 2030, the future land use plan must be accelerated to adapt and meet the transportation, facility and public services needs of the population.

SEMCOG REGIONAL FORECAST

A regional forecast is developed by SEMCOG for each of the 233 local communities in Southeast Michigan. This forecast provides a long-range and comprehensive view of future demographic and economic changes. It provides base data for updating the long-range transportation plan and other regional planning projects. Member communities use the data in planning for infrastructure and development needs. The SEMCOG projections for Fort Gratiot Township used in this Master Plan are based on data from SEMCOG's 2045 Regional Forecast.

A summary of SEMCOG's population projections for Fort Gratiot are set forth in Table 2-3. At first glance, the household and employment estimates appear to fluctuate at different rates than the forecasted population. However, both the projected employment and number of households consistently remain proportionate to the population changes. The most recent count in 2015, show there to be two households per every five people, or 2.5 people per household in the Township. While both of these counts are predicted to rise and fall at different increments, the anticipated count for the future three decades all show that the household to population ratio will remain two households per every five persons. Likewise, the most recent employment count in 2015 and the anticipated count for the future three decades all show that 60 percent of the population are and will continue to be employed. The amount of population growth that takes place within the Township depends on a variety of factors. These factors include the economy, lifestyle, commuting habits, housing availability, housing affordability, and other factors that influence quality of life. Many of these factors are beyond the Township's control and others may only be slightly influenced by actions of the community.

Table 2-3: Fort Gratiot Township Demographic Projections 2015-2045

	2015	2025	2035	2045	2015-2045	
Population	11,669	12,175	12,525	12,493	824	7.1%
Households	4,631	4,953	5,082	5,029	398	8.6%
Employment	6,866	7,271	7,397	7,484	618	9.0%

Source: SEMCOG 2045 Forecast

POPULATION BY AGE GROUP

In 2013, approximately 15.5 percent of Fort Gratiot Township's population was between the ages of 45 and 54, making that age group the largest in the Township. The next largest was the 55 to 64 age group, accounting for 13.3 percent of the population. This is followed by the 35 to 44 age group with 11.3 percent of the population. The other age groups made up anywhere within the range of about five percent to 11 percent of the Township's population. This age pattern is similar to that of St. Clair County and the State of Michigan, where the two largest age groups were also the 45 to 54 and 55 to 64 aged groups, respectively.

Between 2013 and 2017 each of the age cohorts presented in Table 2-4 were uniquely affected by the Township's overall loss of 76 residents. Five age groups grew in capacity, whereas seven groups shrank. Of the five groups that grew in population, the residents aged 25 to 34 experienced the largest increase with the addition of 218 people, an almost 30 percent increase from 2013, faster than any other age group in the Township. The group with the second greatest increase was that of the 65-74 year olds, gaining 201 residents, a 21.5 percent increase from 2013. During this same five year span, the 35-44 year olds lost 252 residents within that age group and the 5-9 year old age group lost 166 individuals. However, while the 5-9 year olds were reduced by a smaller number than the 35-44 year olds, they endured a greater change in the overall percentage lost with an approximate 22 percent decline, verses a nearly 17 percent loss for the 35-44 year olds. The median age of Fort Gratiot's population increased from 44.5 in 2013 to 45 in 2017. The Township's median age is quite a bit higher than both the state and national average. This is true for not just the most recent calculation in 2017, but also the median age determined for the Township in 2013. See Table 2-4.

Table 2-4: FORT GRATIOT TOWNSHIP POPULATION BY AGE

	2013	2017			2013-2017 Change
	Fort Gratiot	Fort Gratiot	St. Clair County	Michigan	Fort Gratiot
< 5 years	4.6%	4.9%	5.2%	5.8%	0.3%
5-9 years	6.9%	5.4%	6.2%	6.2%	-1.5%
10-14 years	5.5%	6.4%	6.6%	6.6%	0.9%
15-19 years	7.0%	6.8%	6.7%	7.0%	-0.2%
20-24 years	7.0%	6.4%	5.8%	7.2%	-0.6%
25-34 years	6.8%	8.7%	10.5%	12.0%	1.9%
35-44 years	13.6%	11.3%	12.2%	12.2%	-2.3%
45-54 years	14.3%	15.5%	16.1%	14.4%	1.2%
55-64 years	14.3%	13.3%	14.7%	13.6%	-1.0%
65-74 years	8.4%	10.3%	9.2%	8.4%	1.9%
75+ years	11.7%	11.0%	6.9%	6.6%	-0.7%
Total	11,121	11,045	160,429	9,900,571	-0.7%
Median Age	44.5	45	42.8	39.5	0.50

SOURCE: U.S. Bureau of the Census, 2013-2017 American Community Survey 5-Year Estimates:

SEMCOG's Regional Development Forecast also provides population projections by age group (0 to 4, 5 to 17, 18 to 24, 25 to 54, 55 to 64, 65 to 84 and 85 and over). By calculating the relative proportions of each age group to

SEMCOG's total population projection for 2025, 2035 and 2045, and then multiplying these proportions by the population projections given above, the following projections by age group are derived and shown in Table 2-5.

Table 2-5: POPULATION PROJECTIONS BY AGE GROUP

Age Group	2015	2025	2035	2045	Percent Change 2015-2045
Age 0 to 4	570	645	641	569	-0.2%
Age 5 to 17	1,695	1,509	1,722	1,688	-0.4%
Age 18 to 24	1,096	1,041	835	951	-13.2%
Age 25 to 54	4,131	4,060	4,560	4,535	9.8%
Age 55 to 64	1,702	1,833	1,340	1,421	-16.5%
Age 65 to 84	2,013	2,560	2,656	2,345	16.5%
Age 85+	462	527	771	984	113.0%
TOTAL	11,669	12,175	12,525	12,493	7.1%

SOURCE: Southeastern Michigan Council of Governments 2045 Forecast

From 2015 to 2045 the 85 and over age group is expected to increase over 100 percent (113%), which is approximately 16 times the projected 30-year growth rate for the total population (7.1%). With the exception of the 65 to 84 and the 25 to 54 age groups, who are anticipated to increase by 16.5 percent and 9.8 percent, respectively, the remaining age groups are all likely to see a decrease in population. Throughout the fifteen year prediction period, the 25 to 54 year old residents have continually encompassed the largest portioned age group within the Township. Though this group is not experiencing the highest growth rate, it is expected to remain the largest share of their population in its entirety. With an estimate of 4,535 individuals by 2045, 25 to 54 year old residents are predicted to comprise over 36 percent of the Township's total population. However, if we were to combine the three oldest age groups (55 and over), their population estimates are quite similar to the individual estimate of the 25 to 54 year old group. At 38 percent of the Township's total population, the population 55 and older is expected to represent a slightly greater portion than the 25 to 54 age, with an estimated count of 4,750 individuals by 2045.

Sometimes a clearer view of the age composition of a population can be seen when the population is broken down into the following major age groups: as shown broken down in Table 2-6.

Table 2-6: Population by Major Age Group

	2013	2017			2013-2017 Change
	Fort Gratiot	Fort Gratiot	St. Clair County	Michigan	Fort Gratiot
Pre-School	4.6%	4.9%	5.1%	5.8%	0.3%
School	26.4%	24.9%	24.8%	26.5%	-1.5%
Labor Force	48.9%	48.9%	52.9%	51.8%	0.0%
Family Formation	20.4%	20.1%	22.3%	24.1%	-0.3%
Seniors	20.1%	21.3%	17.2%	15.9%	1.2%

- Pre-School (age 0 - 4)
- School (age 5 - 24): the age levels usually enrolled in school or college
- Labor Force (age 25 - 64): the age levels usually in the labor force
- Family Formation (age 25 - 44): the age levels that usually start a family
- Seniors (age 65 and above)

SOURCE: U.S. Bureau of the Census, 2013-2017 American Community Survey :

No drastic shifts occurred within any of the age groups during the 2013 to 2017 five year span. Each remained fairly constant, most notably, the Labor Force age group, who's 2017 population count was identical to its five year historical count. All other age groups experienced a marginal increase or decrease of less than a two percent variation in either direction. Even though the Township experienced a decrease in the percentage of the seniors that make up the population, they still have a larger percentage of seniors in comparison to the County and the State as a whole. The Pre-School aged group experienced a slight growth while the School Aged group incurred a slight decrease over the past five years. Although, the majority of the Township's population is growing older, there still appears to be a consistent addition of younger generations to the population as well, just not growing at quite as quick of a pace as the elder generations.

Even though the female population grew less than one percent (.9%) during the 2013 to 2017 five year span, they still surpassed the male population who experienced a population loss (-.9%) within the Township during this same time. With a 53 percent reported share of females making up the Township's population in 2017 and the male share comprising 47 percent, the Township's female population not only continues to outweigh the male population, as it has for well over three decades, but the gap between the two appears to be growing as well. From 2013 to 2017, the proportion of males and females in Fort Gratiot Township both changed by 1.1 percent, but in opposite directions. The proportion of males making up the Township's population decreased by 1.1 percent (5,360-5,199) whereas the female share experienced a 1.1 percent increase (5,761-5,846) over the five year span. In 2010 there was a little over a three percent gap between sexes, in 2013 that gap expanded to four percent with a difference of approximately 400 more females than males. Now, in 2017 this gap has grown to become a six percent variation with a nearly 650 person difference in between the two sexes. That population gap is a growth of more than 60 percent in the past five years with approximately 250 more females reported in 2017 than in 2013.

HOUSEHOLDS OVERVIEW

In addition to population forecasts of Fort Gratiot Township in its Regional Development Forecast/Small Area Forecast process, SEMCOG also issues forecasts of average household size for all Southeastern Michigan Communities, including the Township. These forecasts, when used with the population projections derived above, allow us to project the number of households to be found in the Township. The resulting figures are presented in the Table 2-7.

Table 2-7: Fort Gratiot Township Households - Projected Size & Number		
	2018	2045
Average Persons/Household	2.39	2.35
Number of Households	4,808	5,029

SOURCE: SEMCOG 2045 Forecast

It is anticipated that the household rate of growth will exceed the growth rate of population. This is because of the continuing trend toward a smaller household size. In 2000, there were 4,076 households with 2.56 persons per household. In 2010, Fort Gratiot Township had 4,563 households with an average of 2.39 persons per household. It has currently grown to 4,808 households, but the 2.39 persons per household size remained; however, by the year 2045, the anticipated number of households will grow to 5,029, yet the average household size is predicted to shrink to 2.35 persons per household. Thus, from 2018 to 2045 there will only be an increase of 221 households, or an overall increase of 4.6 percent. This household growth will be reflected in the construction of new dwelling units.

HOUSING CHARACTERISTICS

In 2017, 97.8 percent of Fort Gratiot Township's population lived in households. Approximately 62 percent of all households in the Township were family households (where all members of the household are related by birth or marriage), among those, 80 percent were married-couple family households and slightly less than 14 percent were households headed by a single/widowed/divorced female. The percentage of family households in the Township is slightly lower than the percentage of family households in both the State and the County, which respectively comprise 65 percent and .66 percent of their share of total households.

The percentage of married-couple family households in Fort Gratiot Township (50%) is slightly lower than the County (52%), but higher than that for the State (47%). This number has been steadily decreasing in the Township for several years, with the share being 55 percent in 2009 and 50 percent in 2013. The Township did experience a small increase in 2014 (51%) and 2015 (52%), but then returned to a decreasing progression from that point on with the most recent count, in 2017 returning to 50 percent. The percentage of female-led family households in the Township is lower than in both the County and the State. While the number of female led households in the Township has decreased over the past five years. They make up the same proportion of family households as they did in 2013. Over 37 percent of all households in the Township were nonfamily households, 30.2 percent were single-person households and 16.7 percent were households with householders aged 65 or older. Both the counts and the percentage each of these three categories represent within their total household population have all increased from the 2013 numbers reported in Fort Gratiot Township. In comparison to the shares of each of these household categories within the total household population for the County and the State, the Township's shares are also all greater. These figures are found in Table 2-8.

Table 2-8: Household Population and Type, 2013-2017

	2013	2017			2013-2017 Change	
	Fort Gratiot	Fort Gratiot	Michigan	St. Clair County	Fort Gratiot	
Households	4,598	4,384	3,888,646	64,387	-214	-4.7%
Family Households:	3,016	2,732	2,509,610	42,785	-284	-9.4%
Married-couple family	2,281	2,193	1,846,259	33,214	-88	-3.9%
Male Householder	129	163	182,351	2,932	34	26.4%
Female Householder	553	376	481,000	6,639	-177	-32.0%
Nonfamily households	1,433	1,652	1,379,036	21,602	219	15.3%
Householder alone	1,283	1,325	29.2%	27.6%	42	3.3%
Householder > age 65	714	730	11.3%	11.4%	16	2.2%
Persons/Household	2.36	2.46	2.49	2.45	0.10	4.2%
Persons/Family	2.87	3.08	3.08	2.98	0.21	7.3%

Source: 2013-2017 American Community Survey 5-Year Estimates

The owner occupied homes make up a greater share of the total occupied units in the Township, comprising approximately three quarters of all occupied units, while the occupied rentals consist of approximately one quarter of the total occupied units. Therefore, it is logical that the majority of this loss came from the owner occupied homes, which experienced a six percent deficit (-205 homes), while the number of occupied rental homes declined by less than one percent (-9 units), during that same five year span. The occupancy size of owner-occupied units within the Township is slightly less than the County and the State. Conversely, the occupancy size of rentals is greater than that of both the County and the State. All occupancy figures are presented below in Table 2-9.

Table 2-9: Housing Occupancy and Tenure, 2013-2017

	2013	2017			2013-2017	
	Fort Gratiot Township	Fort Gratiot Township	Michigan	St. Clair County	Fort Gratiot Township	
Total Units	5,104	4,966	4,568,200	71,960	-138	-2.7%
Vacant units	506	582	679,554	7,573	76	15.0%
Occupied units	4,598	4,384	3,888,646	64,387	-214	-4.7%
Owner occupied	3,417	3,212	2,760,156	49,024	-205	-6.0%
Renter occupied	1,181	1,172	1,128,490	15,363	-9	-0.8%
Homeowner Vacancy Rate	2.0	1.9	1.8	2.1	-0.10	-5.0%
Rental Vacancy Rate	9.2	8.2	5.5	4.0	-1.00	-10.9%
Average Size						
Owner occupied unit	2.44	2.46	2.57	2.52	0.02	0.8%
Renter occupied unit	2.14	2.70	2.30	2.26	0.56	26.2%
Source: 2013-2017 American Community Survey 5-Year Estimates Selected Housing Characteristics						

As shown in Table 2-10, most (92%) of the Township's owner-occupied housing in 2017 was valued at less than \$300,000 per unit, with only eight percent of all units in the Township worth more than \$300,000. This number has dropped slightly from 2013 where approximately ten percent of all units were worth \$300,000 or more. As noted in Table 2-9, the overall owner-occupied housing unit count fell by over 200 homes from 2013 to 2017. However, the number of owner-occupied homes valued at \$50,000 to \$149,000 accounted for over twice that amount in their loss as their count fell by almost 430 homes. The majority of that loss was counterbalanced by the increase of homes valued at \$150,000 to \$199,000. With their addition of nearly 300 new homes, an increase by over a half (53%), this housing price range experienced the greatest growth during that five year span. The only other home value range that experienced any significant growth were those homes valued at \$200,000 to \$299,999 which increased by about 50 homes. Whether this is an affordability or availability driven inclination, it is apparent that the share of middle range valued homes are rising in the Township whereas the lower and higher priced homes appear to be shrinking in comparison.

When looking at the housing market value annually, not only is the median value of housing in Fort Gratiot Township greater than that of the State or the County, but it also increased by \$22,600 within the Township, over the past five years, growing from \$131,800 in 2013, up to \$154,400 in 2017. This may be a sign that the housing market decline, a repercussion from the recent economic recession, may have come to an end as the Township is experiencing home prices increase once again.

Table 2-10: Value of Owner-Occupied Housing Units, 2013-2017

	2013				2017				2013-2017	
	Fort Gratiot Township		Fort Gratiot Township		Michigan		St. Clair County		Fort Gratiot Township	
Less than \$50,000	382	11.2%	349	10.9%	392,550	14.2%	5,810	11.9%	-33	-8.6%
\$50,000 - \$99,999	795	23.3%	528	16.4%	593,012	21.5%	11,000	22.4%	-267	-33.6%
\$100,000 - \$149,999	796	23.3%	636	19.8%	524,665	19.0%	10,366	21.1%	-160	-20.1%
\$150,000 - \$199,999	562	16.5%	860	26.8%	450,723	16.3%	9,051	18.5%	298	53.0%
\$200,000 - \$299,999	536	15.7%	584	18.2%	437,614	15.9%	8,149	16.6%	48	9.0%
\$300,000 - \$499,999	228	6.7%	158	4.9%	263,609	9.6%	3,515	7.2%	-70	-30.7%
\$500,000 - \$999,999	78	2.3%	79	2.5%	80,189	2.9%	830	1.7%	1	1.3%
\$1,000,000 or more	40	1.2%	18	0.6%	17,794	60.0%	303	0.6%	-22	-55.0%
Median value	\$131,800		\$154,400		\$136,400		\$135,000		\$22,600	17.1%

Source: 2013-2017 American Community Survey 5-Year Estimates

In Fort Gratiot Township, as of 2017, the majority of homes were built between the years 1960 and 2010 and make up almost three quarters (74%) of the Township's housing stock. The older homes, account for the other quarter (25%) of the Township's homes, with only one percent of the structures having been built after 2010. The Township experienced the bulk of new homes erected during the 1990's decade with nearly 1,000 new homes built between the years, 1990 to 1999.

Historically, the percentage of homes erected in Fort Gratiot Township grew at a lower rate than that of the County and the State, up until the 1960's decade. Throughout the next five decades, the Township experienced an upsurge in the number of homes built; growing at a higher rate than both the County and the State, with the exception of the 1970's decade where they leveled out and all three grew at about the same pace. From that point on, Fort Gratiot has maintained a higher percentage of new homes built than in the County. They continued to surpass the State as well, up until 2010 through to the present, but they are still comparable with the state's rate, lagging by less than one

Table 2-11: Year When Housing Structure Built, 2017

	Michigan	St. Clair County	Fort Gratiot Township	
Built 2014 or later	0.44%	0.29%	21	0.42%
Built 2010 to 2013	1.04%	0.35%	34	0.68%
Built 2000-2009	10.01%	11.14%	636	12.81%
Built 1990 to 1999	13.12%	16.87%	996	20.06%
Built 1980 to 1989	9.93%	9.84%	634	12.77%
Built 1970 to 1979	15.45%	14.97%	742	14.94%
Built 1960 to 1969	11.99%	9.45%	669	13.47%
Built 1950 to 1959	15.09%	12.36%	583	11.74%
Built 1940 to 1949	7.84%	7.60%	263	5.30%
Built 1939 or earlier	15.09%	17.13%	388	7.81%
Median Year Structure was Built	1970	1972	1978	

Source: 2013-2017 American Community Survey 5-Year Estimates

The overall housing stock has diminished by 2.7 percent; however, the number of vacant units experienced a 15 percent increase. This drop is fairly consistent with that of the State of Michigan, but almost 4.5 percent greater than the County gained. Of the 4,384 occupied housing units in the Township reported existing in 2017, 73.3 percent were owner-occupied, a higher percentage than in the State, but lower than the County as a whole. On the contrary, the renter-occupied comparison is a reversal of the owner-occupied; the percentage of renter-occupied housing among all occupied homes in the Township is 27 percent, making it a lower share than in the State and higher share than the County. With a 2017 homeowner vacancy rate of 1.9, the Township's rate corresponds with both the State and County rates, at 1.8 and 2.1, respectively. The same cannot be said for the Township's rental vacancy rate. While the Township did experience a slight decrease from 2013 (9.2), their 2017 rate of 8.2 is significantly higher than the rates of both the State (5.5) and the County (4.0). From 2013 to 2017, the overall number of occupied units in the Township declined by 4.7 percent (-214 units).

ECONOMIC RESOURCES

The economic resources of a community are often just as important as a community's natural resources. In fact, certain natural resources, such as prime farmland (for the agriculture industry) and woodlands (for the logging and recreation industries) can be economic resources as well. Furthermore, as with natural resources, the economic resources of a community can help to determine the kind of land uses that are possible within the community, both currently and in the future. For example, communities with large numbers of higher income households could be expected to attract retail businesses (such as shopping centers, etc.) to serve the needs of those households, thus creating a demand for commercial land. Other communities with large tax bases are generally able to afford to provide the kinds of public services, such as public water, sewer and paved roads, which make the community an attractive place for persons and industries to locate. Also, the number and kinds of employment opportunities

Table 2-12: Households by Income, 2013-2017

	2013		2017				2013-2017 Change	
	Fort Gratiot Township		Fort Gratiot Township		Michigan	St. Clair County	Fort Gratiot Township	
Less than \$10,000	189	4.1%	224	5.1%	7.3%	6.2%	35	18.5%
\$10,000 – \$14,999	181	3.9%	188	4.3%	5.0%	5.1%	7	3.9%
\$15,000 – \$24,999	508	11.0%	365	8.3%	10.6%	10.1%	-143	-28.2%
\$25,000 – \$34,999	733	15.9%	534	12.2%	10.4%	10.7%	-199	-27.2%
\$35,000 – \$49,999	711	15.5%	713	16.3%	14.1%	14.2%	2	0.28%
\$50,000 – \$74,999	827	18.0%	715	16.3%	18.5%	19.5%	-112	-13.54%
\$75,000 – \$99,999	479	10.4%	562	12.8%	12.2%	13.7%	83	17.33%
\$100,000 - \$149,000	529	11.5%	722	16.5%	12.9%	13.5%	193	36.48%
\$150,000 - \$199,999	226	4.9%	235	5.4%	4.7%	4.4%	9	3.98%
\$200,000 or more	215	4.7%	126	2.9%	4.3%	2.6%	-89	-41.40%
Median household income	\$49,500		\$55,982		\$52,668	\$53,641	\$6,482	13.09%
Per capita Income	\$30,537		\$29,831		\$28,938	\$27,807	-\$706	-2.31%

Source: 2013-2017 American Community Survey 5-Year Estimates

(present and future) that a community can offer will affect the demand for residential land in that community. The various economic resources of a community, along with those of the surrounding county or region (since no community is truly self-sufficient) form the community's economic base. It is the purpose of this section to delineate the various economic resources that make up the economic base of Fort Gratiot Township.

INCOME

Nearly three quarters of all households within the Township are reported as having yearly incomes between \$25,000 and \$149,000. The majority of Michigan and St. Clair County households also fall within these same five income brackets. Table 2-12 displays the number and share of households with income by income class.

The largest proportion of households within Fort Gratiot, at 16.5 percent, earns an annual income between \$100,000 and \$149,000, the highest tier among that five income stretch. Looking back at 2013, this income class only made up 11.5 percent of the Township's total share of household incomes; however, by 2017, the number of households at this earning level grew by nearly 40 percent, an increase of approximately 200 households. This being the most pronounced surge amongst all ten income brackets within that five year span, is what advanced it to become the greatest overall share of household incomes reported within the Township, greater than that of both the State and the County. Trailing by only a fraction of a percent, the second largest proportion of households within the Township, tied at 16.3 percent, earn an annual income between either \$50,000 and \$74,000 or \$35,000 and \$49,000. These two respective income ranges are the highest and second highest shares of households within the State and the County.

Similar to the Township's largest income distribution experiencing the most growth, the smallest distribution percentage of household income also experienced the least growth or in this case, the greatest loss. At fewer than three percent of the Township's share, those earning within the highest income tier, grossing an annual income of \$200,000 or more, also suffered the greatest decline, over a 41 percent loss. Also depicted in Table 2-12, from 2013 to 2017, the median household income grew by over 13 percent, adjusted for inflation; conversely, the per capita income dropped 2.3 percent, also adjusted for inflation. However, both the median income as well as the per capita income were each higher in comparison to those incomes of both the County and the State.

Table 2-13: Labor Force Status

	2013		2017				2013 - 2017	
Total Population 16+ years	Fort Gratiot Township		Fort Gratiot Township		Michigan	St. Clair County	Fort Gratiot Township	
In labor force	5,195	57.2%	5,103	56.4%	61.2%	60.5%	-92	-1.8%
Civilian labor force	5,176	57.0%	5,103	56.4%	61.2%	60.5%	-73	-1.4%
Employed	4,618	50.8%	4,766	52.7%	56.7%	55.9%	148	3.2%
Unemployed	558	6.1%	337	3.7%	4.5%	4.6%	-221	-39.6%
Armed Forces	19	0.20%	0	0.00%	0.00%	0.00%	-19	-100.0%
Not in labor force	3,892	42.8%	3,939	43.6%	38.8%	3.9%	47	1.2%

Source: 2013-2017 American Community Survey 5-Year Estimates,

LABOR FORCE

Of the 5,103 eligible workers in the Fort Gratiot Township civilian labor force in 2017, only 3.7 percent were unemployed, down 2.4 percent from 2013. The 2017 unemployment rate in the Township was lower than the unemployment rates in both the County and the State. The size of the Township's labor force shrunk slightly since 2013. Overall, the percentage of persons aged 16 years and over participating in the labor force in the Township in 2017 is lower than for the County and the State. These figures are represented in Table 2-13

In 2018, over 57 percent of Fort Gratiot's labor force was reportedly employed in "white collar" industries, while St. Clair County's share narrowly comprised 50 percent of their workforce. White collar industries include St. Clair County management, professionals, educational workers, social service occupations, health care technicians and computer occupations, as well as business, financial, legal, medical, engineering and architectural professionals. As a group, they tend to be highly educated, receive higher salaries, and live in areas with higher housing values. Within Fort Gratiot another 26 percent of their employed residents worked in "blue collar" industries, such as production, manufacturing, construction, and transportation; whereas, about 31 percent of St. Clair County's labor force were employed in such industries.

EMPLOYMENT

SEMCOG has forecasted jobs by industry sector through the year 2045. Fort Gratiot and St. Clair County forecasts are presented in Tables 2-14a and 2-14b, respectively. The Township is anticipated to add approximately 620 jobs from 2015 to 2045, an increase of nine percent. In contrast, the County is anticipated to increase by nearly 2,500 jobs, which equates to about four percent growth over the course of thirty years. According to SEMCOG's 2045

Table 2-14a:SEMCOG Forecasted Employment (By Industry) 2015-2045: Fort Gratiot

Fort Gratiot Township	2015	2020	2025	2030	2035	2040	2045	2015-2045	
Natural resources, mining & construction	214	222	217	212	205	198	192	-22	-10.3%
Manufacturing	54	44	32	23	18	13	13	-41	-75.9%
Wholesale trade	42	38	35	30	27	26	24	-18	-42.9%
Retail trade	2,687	2,719	2,635	2,501	2,377	2,421	2,128	-559	-20.8%
Transportation & Utilities	66	65	69	63	61	65	67	1	1.5%
Info & Financial Activities	753	847	918	986	1,039	1,108	1,140	387	51.4%
Prof/Tech Services & HQ	286	265	265	258	271	275	281	-5	-1.7%
Administrative, Support & Waste Services	129	151	174	192	207	232	243	114	88.4%
Education Services	170	170	171	172	173	175	176	6	3.5%
Healthcare Services	986	1,111	1,161	1,213	1,292	1,380	1,436	450	45.6%
Leisure & Hospitality	1,050	1,161	1,164	1,180	1,250	1,242	1,256	206	19.6%
Other Services	284	264	283	295	329	347	382	98	34.5%
Public Administration	145	146	147	147	148	148	146	1	0.7%
Total Employment	6,866	7,203	7,271	7,272	7,397	7,630	7,484	618	9.0%

Regional Forecast, the industry to add the most jobs from 2015 to 2045 in both the Township and the County will be the Healthcare Services sector, with the addition of 450 and 3,340 jobs, respectively. In 2015 there were a reported 8,950 healthcare jobs within the County and by 2045 this industry is predicted to grow by over 37 percent for a total count of nearly 12,300 healthcare jobs in the County. Approximately 12 percent of these jobs will be located in Fort Gratiot. These numbers refer not to the employment of the population of the County (as in the socio-economic section of this plan), but rather the employment positions existing in the County. Historically, the manufacturing and retail trade industries have been top performers for the Township as well as the County and the State. However, according to the SEMCOG forecasted numbers, these are the two industries expected to undergo the greatest loss in employment.

Historically, the manufacturing and retail trade industries have been top performers for the Township as well as the County and the State. This still holds true according to the 2017 American Community Survey's employment counts per industry, the most recent figures produced by the American Census. These industry populations are displayed in Table 2-15 which depicts both the manufacturing and retail trade industries as being among the top three highest employed industries within Michigan, St. Clair County and Fort Gratiot Township. Providing work for almost a quarter of its labor force, manufacturing remains the County's leading employer and was the second leading industry for both the State and the Township. As for the retail trade industry, it ranked as the third highest employed industry for each the State, the County and the Township, ranging from 11 percent to 15.5 percent of the total workforce employed in this sector.

Table 2-14b. SEMCOG Forecasted Employment (By Industry) 2015-2045: St. Clair County

St. Clair County	2015	2020	2025	2030	2035	2040	2045	2015-2045	
Natural resources, mining & construction	4,785	4,949	4,830	4,791	4,787	4,715	4,634	-151	-3.2%
Manufacturing	7,715	7,349	6,916	6,402	6,067	5,766	5,456	-2,259	-29.3%
Wholesale trade	1,661	1,693	1,690	1,680	1,687	1,684	1,672	11	0.7%
Retail trade	7,980	7,972	7,750	7,354	7,198	6,974	6,675	-1,305	-16.4%
Transportation & Utilities	3,372	3,286	3,220	3,136	3,104	3,061	2,996	-376	-11.2%
Info & Financial Activities	6,431	6,519	6,456	6,383	6,441	6,481	6,470	39	0.6%
Prof/Tech Services & HQ	3,198	3,355	3,487	3,623	3,822	4,000	4,158	960	30.0%
Administrative, Support & Waste Services	2,697	2,926	3,147	3,284	3,543	3,777	3,887	1,190	44.1%
Education Services	4,381	4,446	4,462	4,476	4,535	4,583	4,607	226	5.2%
Healthcare Services	8,950	9,541	10,068	10,387	11,028	11,708	12,294	3,344	37.4%
Leisure & Hospitality	5,792	5,965	6,038	6,076	6,192	6,281	6,344	552	9.5%
Other Services	4,104	4,294	4,329	4,327	4,386	4,389	4,323	219	5.3%
Public Administration	3,168	3,186	3,188	3,189	3,202	3,208	3,195	27	0.9%
Total Employment	64,234	65,481	65,581	65,108	65,992	66,627	66,711	2,477	3.9%

Table 2-15: Population by Industry, 2017

	Fort Gratiot Township		Michigan	St. Clair County
Agriculture, forestry, fisheries, hunting & mining	18	0.4%	1.2%	1.0%
Construction	198	4.2%	5.1%	6.9%
Manufacturing	816	17.1%	18.4%	23.8%
Wholesale trade	122	2.6%	2.4%	1.6%
Retail trade	741	15.5%	11.1%	11.7%
Transportation & warehousing, & utilities	176	3.7%	4.2%	5.1%
Information	36	0.8%	1.5%	1.4%
Finance, insurance, real estate & rental & leasing	211	4.4%	5.5%	3.6%
Professional, scientific, management, administrative, & waste management services	209	4.4%	9.5%	6.1%
Educational, health & social services	1,350	28.3%	23.5%	21.2%
Arts, entertainment, recreation, accommodation & food services	356	7.5%	9.4%	8.8%
Other services	212	4.4%	4.7%	4.3%
Public administration	321	6.7%	3.5%	4.6%

Source: 2013-2017 American Community Survey 5-Year Estimates

However, according to the SEMCOG forecasted numbers, these are the two industries expected to undergo the greatest loss in employment. This region's employment has, for the most part, relied on manufacturing in the past, with a focus on the automotive and plastics industries. Employment trends in the county have followed the patterns of the region and the state economy for the last several years. This industry is anticipated to experience the greatest rate of job loss among all industries within both the County and the Township. By 2045, county manufacturing jobs are expected to decline by over 29 percent, or the elimination of 2,259 positions. In contrast, the Township's manufacturing employment is expected to decline by approximately 76 percent. This appears to be quite a substantial loss; however, in 2015 the manufacturing sector comprised less than one percent of the Township's total employment; therefore, their anticipated decline is only about 40 positions, but it will substantially impact the proportion of manufacturing jobs in relation to total employment within that particular industry.

In 2015, the industry that employed the greatest number of workers (16 years of age or over) within the Township was Retail Trade and the second largest employed industry among the County. While the retail industry is predicted to remain the top employer within the Township through 2045, it is also anticipated to take the biggest hit in terms of the number of jobs lost (-559) during that same period. This expected job loss equates to about a 21 percent decline in employment for the Township's retail industry. At a predicted 16.4 percent loss, the County's retail industry parallels the Township once again with this predicted to be the second largest job loss (-1,305) of all industries. The driving factor behind such a significant loss of employment in the Retail Trade industry is likely due to the Birchwood Mall, once a major retail destination in the region, currently battling with an increasing number of vacancies. Struggling shopping centers have become an increasing nationwide trend driven by recent changes in consumer demand and lifestyle changes among shoppers. Consequently, these changes have influenced a shift toward more online retail shopping contributing toward the rising number of retail vacancies and decreased

occupancies at the Birchwood Mall and similar shopping centers.

The County can no longer afford to rely on the manufacturing or retail sectors to provide jobs. This makes higher education even more important than ever. Educating and preparing the Township's labor force for the changing world of work is critical to Fort Gratiot's future economic growth and success. Due to technology advances, trending demographic and social changes, along with the transforming business and industry developments, the level of education, training and career readiness must adapt to meet the needs of employers, attract new economy companies to the area and increase opportunities and access to sustaining jobs for all. The Township needs people with different levels of education, skills, abilities, and competencies to fill a broad range of jobs and help expand the economy.

EDUCATIONAL ATTAINMENT

Education refers to formal schooling, either through private academies, public schools, colleges and universities, or technical or trade schools. Educational attainment indicates the highest level of education that an individual has completed. Knowing the educational level of township residents helps determine the educational facilities and training required to both meet current economic conditions and desired economic growth.

The educational attainment of the Township's population is similar to that of both the State and the County with the vast majority of the population having completed and received a high school diploma or equivalent certification and a rising number of college graduates that considerably outnumber those with less than a high school degree. Table 2-16 below depicts the breakdown of the highest educational attainment amongst adult residents of Fort Gratiot for both the years 2013 and 2017. The table also allows for the comparison of Fort Gratiot's 2017 levels with those of St. Clair County and the State of Michigan.

Table 2-16: Educational Attainment, 2017

	2013		2017						2013-2017 Change	
Total population 25+	Fort Gratiot Township		Fort Gratiot Township		Michigan		St. Clair County		Fort Gratiot Township	
Less than 9th grade	195	2.5%	194	2.5%	204,526	3.0%	2,570	2.3%	-1	-0.5%
9th to 12th grade	448	5.8%	532	6.9%	452,157	6.7%	8,534	7.6%	84	18.8%
High school graduate	2,684	35.0%	2,392	30.9%	1,966,110	29.3%	38,731	34.6%	-292	-10.9%
Some college	1,667	21.7%	1,771	22.9%	1,588,068	23.6%	29,369	26.2%	104	6.2%
Associate degree	647	8.4%	964	12.4%	622,070	9.3%	12,620	11.3%	317	49.0%
Bachelor degree	1,108	14.4%	1,144	14.8%	1,147,842	17.1%	12,806	11.4%	36	3.2%
Graduate or professional degree	922	12.0%	748	9.7%	739,199	11.0%	7,372	6.6%	-174	-18.9%
High school graduate or higher	91.6%		90.6%		90.2%		90.1%		-1.0%	
Bachelor's degree or higher	26.5%		24.4%		28.1%		18.0%		-2.1%	

Source: 2013-2017 American Community Survey 5-Year Estimates

In 2017, approximately 91percent of persons age 25 and over in Fort Gratiot Township have earned at least a high school diploma, down one percent from 2013, but equivalent proportions to both the County and State. While it is slightly worrisome to see a nearly 11 percent drop in high school graduates, it is also hopeful to infer that this is because most are going on to pursue an advanced degree. This can be drawn from the increase in achievement levels of all forms of post secondary education and undergraduate college completion rates. As shown, the residents of Fort Gratiot (25 years and older) rank higher in the percentage of associate degree completion than the County or State as a whole. This is the only level of educational procurement where we see the Township has a noticeably larger quantity than that of both the County and the State. The close proximity of St. Clair County Community College likely plays a significant role in the Township's higher attainment rates.

While they aren't necessarily lagging in the other educational levels, the Township appears to consistently fall somewhere in between the reported rates of the County and the State. This is apparent when examining the proportion of each region's population with a bachelor's degree or higher. Approximately 24.4 percent of township residents had a bachelor's degree or higher in 2017 compared to 18 percent county-wide. However, these numbers were significantly less than the State as a whole, where over 28 percent of residents have a bachelor's degree or higher. Fort Gratiot is positioned right in between the ten percent gap between the County and State.

These levels of educational attainment typically indicate a community of moderately skilled workers that attain jobs in service or manufacturing industries. However, as mentioned previously, the region can no longer rely on these types of jobs to sustain and grow their economy. In order to compete in the transforming economy, the Township must prepare themselves to adapt, attract and sustain the changes taking place in the workforce. A population's level of education often sheds light on the potential for workforce development within the community and the desire of businesses to locate within or near that community. Therefore, the level of education should be modified to accommodate to and align with the careers the Township wishes to draw to the area as well as being able to employ and sustain.

Table 2-17: School Enrollment (Population 3 and over)

	2013		2017						2013-2017 Change	
	Fort Gratiot Township		Fort Gratiot Township		Michigan		St. Clair County		Fort Gratiot Township	
Population 3+ years enrolled in school	2,443	22.6%	2,488	23.2%	2,522,019	26.3%	35,891	23.2%	45	1.8%
Preschool, Nursery School	156	6.4%	130	5.2%	141,336	5.6%	2,000	5.6%	-26	-16.7%
Kindergarten	123	5.0%	121	4.9%	121,717	4.8%	1,532	4.3%	-2	-1.6%
Elementary School (grades 1-8)	1,156	47.3%	1,127	45.3%	986,567	39.1%	15,980	44.5%	-29	-2.5%
High School (grades 9-12)	598	24.5%	626	25.2%	538,584	21.4%	8,952	24.9%	28	4.7%
College (Undergraduate)	343	14.0%	379	15.2%	608,801	24.1%	6,322	17.6%	36	10.5%
Graduate or Professional School	67	2.7%	105	4.2%	125,014	5.0%	1,105	3.1%	38	56.7%
Not Enrolled in School	8,383	77.4%	8,241	76.8%	7,065,174	73.7%	118,974	76.8%	-142	-1.7%

Source: 2013-2017 American Community Survey 5-Year Estimates

EDUCATIONAL ENROLLMENT

For the most part, the school enrollment levels of Township residents are equivalent to that of the County's enrollment levels. The same overall percentage of the population aged three and older that are enrolled in school, 23.2 percent, verses those not enrolled, 76.8 percent, is shared by the Township and the County. Therefore, the proportion of the total population enrolled in school is about three percent lower than that of the entire State of Michigan, which was reported at 26.3 percent. The enrollment counts are depicted in Table 2-17.

Keep in mind this is the entire population aged three and over. When we focus on the more common age ranges in which most people attend school, the numbers are nearly indistinguishable across the board. For all three geography levels, enrollment rates for those aged three to 17 are all over 90 percent. The numbers drop as the ages included in the count increase, yet those three to 19 are still nearly 90 percent. When expanded to those people aged three to 24, the students enrolled still makes up at least three quarters of the population and then when another ten years are added and we look at those aged three to 34, the enrollment levels are lower, yet still nearly 60 percent of all residents aged 3 to 34.

In 2013, the Township trailed both the County and the State in college (undergraduate) enrollment rates. However, all grade levels prior to this, preschool through high school, the Township's rates surpassed all in both the State and the County. In spite of this, Fort Gratiot experienced some declining enrollment rates over the next five years. Preschool through elementary school enrollment all experienced a loss. Preschool endured the greatest drop with a nearly 17 percent change. However, when comparing the Township's preschool enrollment makeup to the County and State, the decline was unnoticeable in the enrollment proportion preschool makes up among all education levels.

The Township's post secondary school enrollment rates have all risen in the past five years. The graduate or professional school enrollment has increased by over half. However, in terms of their enrollment share makeup among all students, their rates are lagging. The most distinguishing disparity is noticed only when compared to the State. Even though the Township's undergraduate college enrollment rate grew by nearly 11 percent, it makes up nine percent less of the total enrolled population than what is reported in the State.

In order to keep up with the ever-changing and advancing workforce, the Township ultimately must increase the number of adults with college degrees. Achieving this goal is likely to involve a combination of increasing participation in higher education and increasing the percentage of those enrolling who succeed in earning postsecondary degrees and certificates.

GEOGRAPHY AND ENVIRONMENTAL RESOURCES

It is important to begin an assessment of the community with a description of its natural attributes. This chapter presents a description of the topography, soils, water resources, and woodlands that provide the physical basis of the community and available utility systems.

TOPOGRAPHY

The topography of Fort Gratiot Township is a level to gently rolling plain sloping from west to east. This topography is modified by the shoreline along Lake Huron and by the stream channel and flood plain of the Black River.

SOILS

Soils are the building blocks that define the types of activities that can be sustained on the land. For example, the type of vegetation and drainage that occurs naturally in an area is determined by the soil in that area. Not only do soils influence the suitability of land for agricultural purposes, they also help determine where buildings, roads and other development can best be located.

There are twelve major soil associations found in St. Clair County, according to the Soil Survey of St. Clair County. These soil associations are areas with a distinctive and/or proportional pattern of one or more major soils and/or soil complexes and at least one minor soil. The soils in one association may occur in another, but in a different pattern. Of the twelve major soil associations, five can be found in Fort Gratiot Township and they are as follows:

LANDO-AVOCA ASSOCIATION

The most prominent soils in this association are somewhat poorly drained and have high water tables that require drainage prior to development. These soils occur in areas that are largely cleared and cultivated. They are further characterized by low natural fertility and may be droughty in mid-summer. These soils are mainly concentrated in the northwest portion of the Township.

WAINOLA-DEFORD ASSOCIATION

The soils that constitute the major portions of this association are somewhat poorly drained. Some minor soil categories in this larger group, however, have better drainage characteristics. Some areas within this association have been cleared and cultivated, while others either are urbanized or are idle. The major soils in this group have low fertility and low available water capacity. Further, they have a high seasonal water table and require drainage. These soils are confined to the southwestern portion of the Township, south of Keewahdin and west of Pine Grove.

EASTPORT-WAINOLA-TOBICO ASSOCIATION

This association occurs on glacial-like beaches along the shoreline of Lake Huron in a landscape characterized by a pattern of ridges and troughs. The prominent soils in this association range from well-drained to poorly-drained soils. Also included in this association are Alluvial land and the sandy lake beaches of Lake Huron. These areas are generally poorly drained and occur on the floodplains. Most of the area occupied by these soils were either cleared or cut over. In many cases, the soils have been developed for summer cottages or more fully urbanized uses. These soils occur in Fort Gratiot Township along the Lake Huron shoreline, extending west to a depth of approximately one mile.

BACH ASSOCIATION

Soils in this association occur in glacial drainage ways and on lake plains. The landscape is nearly level, but has broad, slightly depressed areas. For the most part, these soils have poor drainage characteristics. They are also characterized by a high water table and are subject to periodic flooding. A relatively small portion of the Township is covered by soils in this association. This area is located parallel to the Lake Huron shoreline, adjacent to the previously described association.

ALLUVIAL LAND-ROUGH BROKEN LAND ASSOCIATION

This association occurs on the floodplains and steep bluffs of the major rivers and streams throughout St. Clair County. More particularly in Fort Gratiot Township, these soils occur along the Black River, the southern boundary of the Township. The general landscape is broad to narrow, generally deeply incised valleys. The Alluvial land component of this association is the active floodplains of the rivers and streams that is either level to gently sloping.

Rough broken land is strongly sloping to very steep and consists of bluffs or escarpments that border the outer edges of the floodplains and the higher uplands. Most areas of this association are pastured, forested, or idle and covered with brush. Alluvial land has a seasonal high water table and is subject to the following. Rough broken land is subject to severe erosion and is too steep and rough for most uses.

SEPTIC SUITABILITY

The Soil Survey for St. Clair County also classifies individual soils by the degree of limitations for use in septic tank disposal fields. In determining these limitations, the factors considered are depth to the water table, permeability rates, hazard of flooding, and topography. The rating of the soils is based on the limitations of the soils to absorb effluent from septic tanks. Soils are rated for three degrees of soil limitations:

1. Slight, where the soil is relatively free of limitations or limitations are easily overcome.
2. Moderate, where soil limitations need to be recognized but can be overcome with good management and careful design.
3. Severe, where soil limitations are severe enough to make use questionable.

Generally, urban and residential development beyond existing public sewer areas should be limited to those areas having soils with only slight or moderate limitations for septic use.

Most of the soils found within the Township are classified as having severe limitations for septic field use. A narrow (up to ¼-mile wide) band of soils with moderate limitations can be found along the Lake Huron shoreline, and smaller areas of moderate limitations can be found in the extreme northern and southern parts of the Township. The southern one-third of the Township, south of M-136, contains extensive areas of soils with only slight limitations for septic field use.

WETLANDS

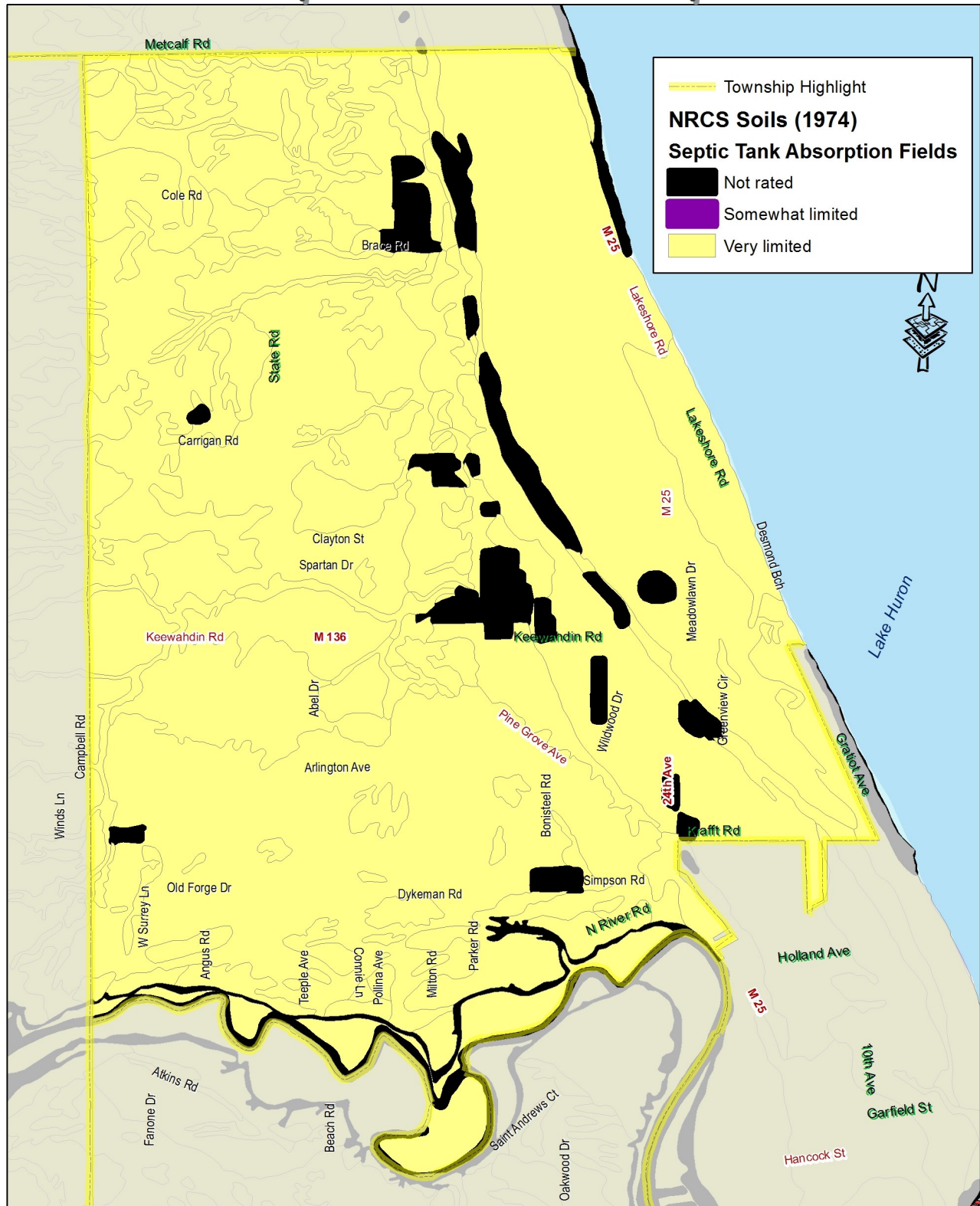
Wetlands serve a number of important environmental functions that need to be considered during the community planning process. The most important functions of a wetland are to serve as a natural filtration device, by trapping and storing nutrients from upland runoff in plant tissue and to serve as a settling basin for silt generated from upland erosion. These functions can be seriously damaged and possibly destroyed by poor land use practices. Since every wetland has a unique tolerance for filtering runoff from the uplands surrounding it, development in those adjacent areas can create more nutrient and sediment inflow than the wetland can handle. Such an overload can damage the wetland to the point where it can turn into a settling basin of polluted, foul water, destroying the area's ecological health and possibly posing a threat to the physical health of the area's population.

Even more serious is the removal of wetlands. The removal of these natural features by dredging or filling will have an immediate impact on the water quality of streams and lakes below them in the watershed system. Preserved wetlands improve water quality, moderate flooding, and stabilize water supplies, thereby providing for overall environmental health and stability.

WETLANDS PROTECTION

In recognition of the importance of wetlands, the State of Michigan enacted the Goemaere-Anderson Wetlands Protection Act (Act No. 203 of the MI Public Acts of 1979), authorizing regulation by the DNR of development in and around wetlands. This legislation defines wetlands as "land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation

Septic Tank Absorption Fields

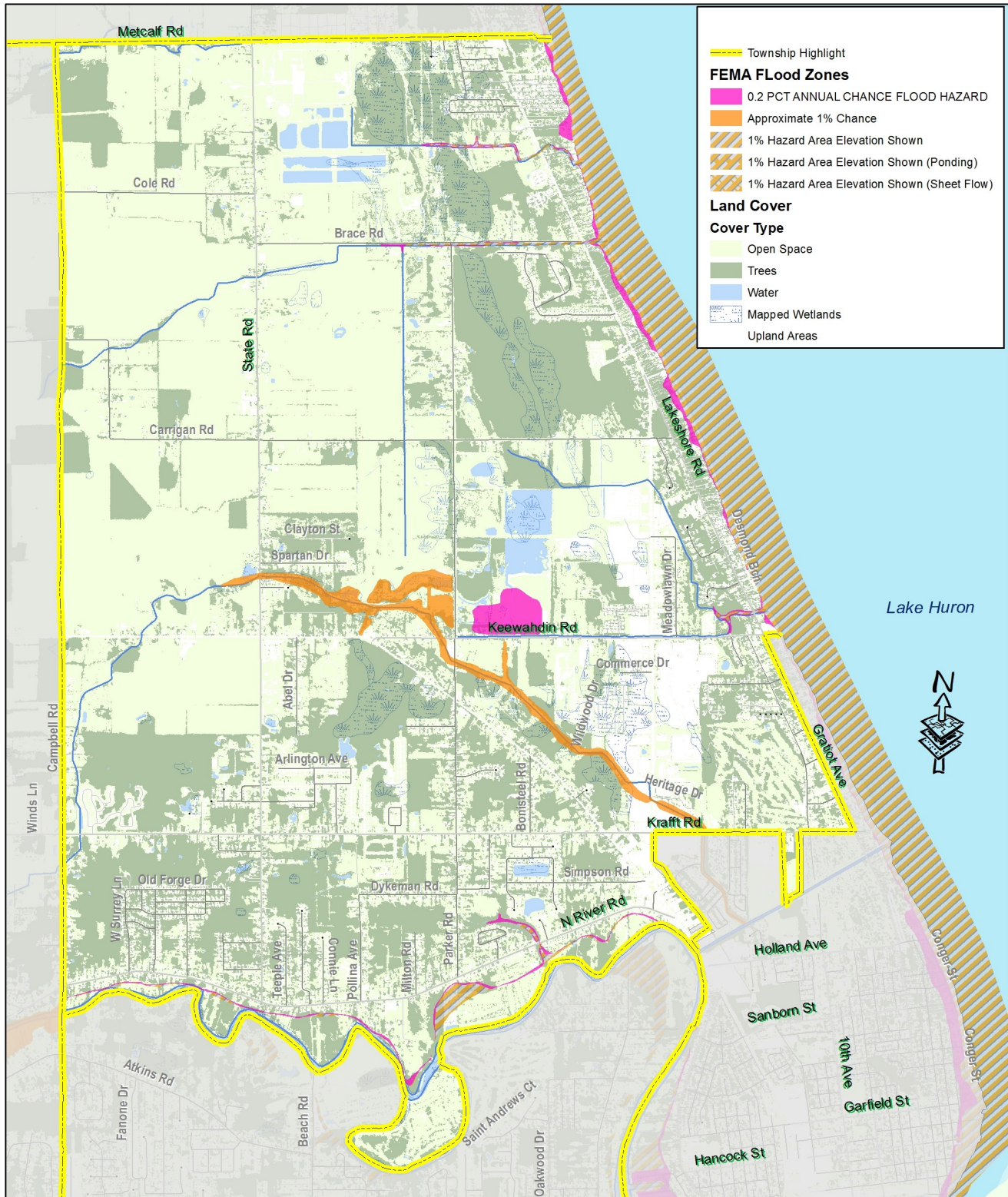


Map Source: NRCS Soils 1974

MAP 2-1

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Natural Features



Map Source: SEMCOG LiDAR Project,
St. Clair County Master Plan

MAP 2-2

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COUNTY OF ST. CLAIR

or aquatic life” and generally regulates the development of wetlands over five acres in size, or which are contiguous to the Great Lakes or to a river, stream, pond or inland lake. Permits are required for the following activities:

- ▶ depositing or placing fill material in a wetland;
- ▶ dredging or removing soil from a wetland;
- ▶ constructing, operating or maintaining any use or development in a wetland;
- ▶ draining surface water from a wetland.

The issuance of permits for these activities depends on whether or not the activity in question is in the public interest and whether or not it is otherwise lawful (that is, permitted by the zoning ordinance and/or other ordinances of the community).

IDENTIFYING WETLANDS

As important as wetlands are, it can sometimes be very difficult to properly identify and define a wetland. Often, the only sure way to determine if a particular parcel is a wetland or not is to do on-site surveys. This is because physically & legally land does not have to be wet all of the time in order to be defined as a wetland. Repeated site surveys can show if water is present frequently enough for the parcel to qualify (legally) as a wetland. In addition, wetlands normally contain unique forms of plant life, which, again, are best identified by on-site surveys.

HYDRIC SOILS

However, for planning purposes, extensive on-site surveys are rather impractical (too time consuming and often too expensive), so other sources of wetland information must be used to help us determine what areas of the Township contain wetlands. One possible source is the list of “hydric soils”—those soils deemed likely to support wetlands—developed by the Soil Conservation Service (SCS) of the U.S. Dept. of Agriculture. This list is keyed to the SCS Modern Soil Survey maps, thus making it possible to show where such soils can be found, and hence, what areas are likely to be wetlands. There are three limitations to using the soil surveys and the list of hydric soils.

First, the soil maps can not show smaller occurrences of soil types, particularly those smaller than two acres. Also, the presence of a wetland soil does not legally define an area as a wetland, so this information can not be used as a legal guide. Finally, as with all information sources, there are occasional errors.

NATIONAL WETLAND INVENTORY

Another source of information on wetlands is the National Wetland Inventory (NWI) maps. These maps are created by interpretation of aerial photographs and overlaying apparent wetland areas onto standard topographic maps. Again, there are limitations to using this kind of information. Since they are produced by mass scale aerial photograph interpretation, there is a significant source of error. Some areas have been interpreted from black & white photographs, others from infrared color photographs that are easier to interpret. Most areas have not been verified by field checks. Due to scale, small areas might be missed. Finally, an aerial photograph reflects a specific time and condition and may not reflect a “typical” condition.

FORT GRATIOT TOWNSHIP WETLANDS

For this plan, the National Wetlands Inventory map of Fort Gratiot Township will be used. According to this map, there are approximately 743 acres of wetlands in the Township. Most of these are found in Sections 4, 5, 9, 16, 17, 20 and 21. NOTE: Actual on-site inspection of these areas by the Michigan Dept. of Natural Comprehensive Master Plan Natural Resources is necessary to precisely determine the characteristics and extent of these wetlands.

WATERSHED CHARACTERISTICS

Fort Gratiot is a member of the Northeastern Watersheds Group. As part of this group, Fort Gratiot partners with St. Clair County, local municipalities, and school districts to meet federal regulations from the Clean Water Act requiring improvements in storm water quality.

FLOODPLAINS

Floodplains are areas where floodwaters spread when the natural stream or river channel overflows its banks because it cannot accommodate runoff from storms or melting snow. Dissipation of flood waters into the floodplain helps reduce the amount of damage incurred by flooding. In addition to providing natural buffers for floods, floodplains provide critical functions as groundwater recharge areas and wildlife habitat.

When the floodplain is altered by grading, filling, or the erection of structures, its flood-dissipating functions are reduced. Oftentimes, changes to the natural system aggravate flooding and damages. Factors that increase flooding problems include:

- ▶ Removing vegetation that stabilizes banks of streams and rivers and slows flood waters.
- ▶ Erecting structures that deflect or inhibit flow of floodwaters can increase flood elevations and modify flow paths, shifting flooding problems and increasing erosion.
- ▶ Constructing bridges, culverts, building, or other structures that encroach on the floodplain and reduce the storage area available for floodwaters.
- ▶ Building drainage systems that quickly feed stormwater into the receiving body.
- ▶ Channelizing streams (straightening meandering watercourses to expedite drainage) which transfers flooding problems downstream alters wildlife habitat.
- ▶ Filling and dumping in floodplains, which can cause a considerable amount of damage as floodwaters rise and transport debris that can interfere with the movement of floodwaters.

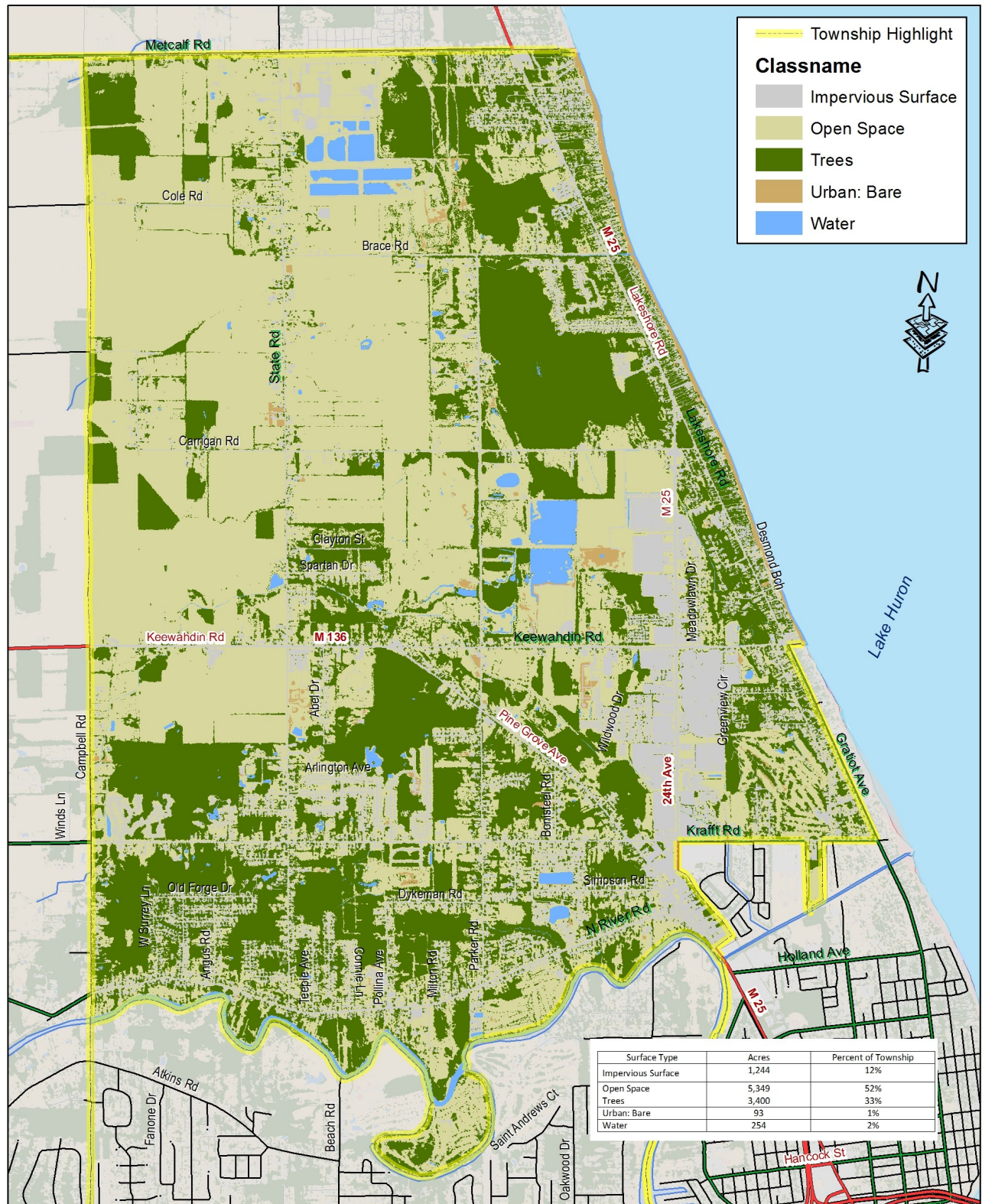
NATIONAL FLOOD INSURANCE PROGRAM

In response to widespread life and property loss associated with flooding, and to help those affected by floods, the federal government has promoted local floodplain management strategies through education programs and enactment of the National Flood Insurance Program (NFIP). The insurance program is basically the only source of flood insurance and is only available to property within communities participating in the NFIP. It is administered by the Federal Emergency Management Agency (FEMA). In order to participate in the subsidized insurance program, communities are required to adopt and enforce regulations regarding development in flood-prone areas. Participation in the program is voluntary and relies heavily on state and local involvement. However, there is a strong incentive to participate, as FHA, VA, and other federally insured mortgages are prohibited in identified floodplains, unless flood insurance is carried.

STATE FLOODPLAIN PROTECTION

Augmenting federal protection measures, the State of Michigan has implemented rules that require a permit to occupy, fill, or grade lands in a floodplain, streambed or channel of a stream. FEMA flood insurance studies, rate maps and other state data are used to determine floodplain boundaries. The flood area within the jurisdiction of state and federal programs is the 100-year floodplain. A 100-year flood (which results from approximately 5 inches of rainfall in 24 hours) has a 1% chance of occurring in any given year. This means that a structure in the 100-year floodplain has a 26% chance of being flooded before the average mortgage is paid off, if it is not properly elevated.

Ft. Gratiot Land Cover



Map Source: SEMCOG LiDAR Project

MAP 2-4

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COUNTY OF ST. CLAIR

FORT GRATIOT TOWNSHIP 100-YEAR FLOODPLAN

According to the National Flood Insurance Program Rate Map for the Township, the 100-year floodplain is located in the following areas:

- ▶ Along the Black River south of North River Road;
- ▶ Along the Brandymore-Howe Drain in Sections 17, 18, 20, 21 and 22;
- ▶ Along the Brace Drain in Section 9;
- ▶ Along the Galbraith Drain in Section 4;
- ▶ Within a narrow strip along the Lake Huron shoreline.

WOODLANDS

Wooded areas also serve significant environmental functions that need to be recognized and acknowledged. These functions include watershed protection, air quality protection, noise abatement and weather protection. There are also many less quantifiable, but highly important benefits provided by woodlands.

WATERSHED PROTECTION

A wooded area can be of great value to a watershed area. The canopy of trees aid in breaking the force of precipitation, thereby decreasing erosion. Erosion is further inhibited by the fibrous root system of the understory plants, as well as the layer of leaf or needle litter. Woodlands can also reduce the volume of stormwater runoff. Clear-cut lands can produce excessive runoff unless trees are replaced by other vegetation with comparable water retaining capacity. With no soil and vegetation to moderate runoff from precipitation, flooding may result, in addition to a loss of precipitation ordinarily retained and recharged into groundwater reserves by the woodland.

AIR QUALITY PROTECTION

Woodlands improve air quality and afford protection from wind and dust. Leaves and branches moderate the strength of winds and, when moistened with dew or rainwater, reduce suspended particles in the air, which are later washed off with rainwater. Plants also serve to moderate the effect of chemical pollutants in the air by absorbing some ozone, carbon dioxide, and sulfur dioxide.

NOISE ABATEMENT

A dense stand of trees can significantly cut noise from adjacent factories or highways by six to eight decibels per 100 feet of forest. Moreover, the moderating effects of forests on temperature and wind can significantly cut the sound-carrying capacity of the atmosphere.

WEATHER PROTECTION

The resilience of woodlands creates a microclimate around the tree stand itself. Woodland qualities, which moderate and buffer temperature, precipitation, runoff, wind and noise, are features of this microclimate effect. The benefits of this microclimate effect to surrounding urban and suburban areas can be significant. An urban area devoid of vegetation is the exact opposite of the forest microclimate. It increases the range of temperature fluctuations much like the climatic extremes of a desert.

The sun's energy striking streets and buildings is changed into heat, further increasing the temperature on a hot day; at night, the buildings lose heat and offer no protective cover from night chill or winter winds. Thus, if woodlands are interspersed among built-up areas, the effects of their microclimates can be felt in adjacent urban areas, moderating fluctuations in temperatures by keeping the surrounding air cooler in the summer and daytime

and warmer in the winter and evening.

OTHER BENEFITS OF WOODLANDS

The significance of woodlands is given added weight by the less quantifiable benefits that they provide to the public. Not only are woodlands important buffers, they also add aesthetic values and provide attractive sites for recreational activities such as hiking, camping, and other passive recreational pursuits. Continued stability of good real estate values is a secondary benefit offered by woodlands. Since people choose to live in and around woodlands, providing for woodland protection in the planning of development projects will maintain favorable real estate values.

WOODLANDS IN FORT GRATIOT TOWNSHIP

Fort Gratiot Township is fortunate inasmuch as extensive portions of the community are occupied by large, woodland areas. These are located throughout the community. The most extensive wooded areas are located in the southwestern and eastern portions of the Township. While the variety and quality of existing trees obviously vary from location to location, the extent of this woodland coverage offers ample opportunities to incorporate existing vegetation into future development activities.

EXISTING LAND USE OVERVIEW

The pattern of development in Fort Gratiot Township has included a variety of different land use types. While there has been general consistency in development patterns, the Master Plan aims to focus development or preservation based on existing land use patterns in order to create a more cohesive development pattern that will allow for and provide connectivity within and between land uses.

AGRICULTURAL USES

Includes cultivated land, pasture and grazing lands, fallow lands available for future cultivation, barns and other agricultural-type buildings, and farmsteads. Currently, there are over 2,020 acres of land used for farming activities and farmsteads, which is just shy of 20% of the total area of the Township. Most of this is concentrated in the northwest part of the Township, north of Keewahdin Road and west of Parker Road. Most of this farmland is fragmented, with few farms larger than 80 acres, and is interspersed with vacant land and large lot residential development.

RESIDENTIAL USES

With 3,706 acres of land being used for single-family residential uses, this land type takes up over 36% of the land in the Township. Most of the single-family residential development can be found in platted subdivisions and in site condominium developments in the southern one-third of the Township, south of Keewahdin Road, and along Gratiot and Lakeshore Roads in the eastern portion of the Township. Much of the increase in single-family residential acreage since 1998 can be found in these areas as well. The rest of the Township's single-family residences are built on unplatted lots along the section line roads in the northwest portion of the Township.

Less than 1% (61 acres) of the Township land is used for multiple-family residential. Most of the multiple-family units are found within four major developments: the Golf Harbor Apartments on North River Road, the Heritage Grove Apartments on 24th Avenue north of Krafft Road, the Westmore Apartments near the corner of 24th Avenue and Keewahdin Road, and the BARSS Adult Foster Care Facility on Lakeshore Road south of Carrigan Road. The remainder of the multiple-family units is scattered among several small complexes located along Gratiot and Lakeshore Roads, south of Carrigan Road.



MAP 2-5



TABLE 2-18: FORT GRATIOT TOWNSHIP EXISTING LAND USE

	Acreage	Percentage
Agricultural	2,023	19.8%
Attached Condominiums	11	0.1%
Cemetery	21	0.2%
Golf Course	354	3.5%
Hospitality	42	0.4%
Industrial	21	0.2%
Institutional	140	1.4%
Medical	55	0.5%
Mobile Home	137	1.3%
Multiple Family Residential	61	0.6%
Office	40	0.4%
Office Residential	6	0.1%
Open Space/Parks	285	2.8%
Parking	12	0.1%
Recreation	35	0.3%
Retail	331	3.2%
Retail Residential	16	0.2%
Single Family Residential	3,706	36.2%
Transportation/Communications/Utilities	510	5.0%
Vacant	2,418	23.7%
Total	10,224	100.0%

Two mobile home parks currently exist in the Township, containing a total of over 137 acres, accounting for 1.3% of the total land area of the Township. The first, Birchwood Estates, is located west of 24th Avenue between Krafft Road and Keewahdin Road. The second mobile home park, Brandymore Pines, is located on the north side of Krafft Road just west of Campbell Road.

COMMERCIAL AND OFFICE USES

Commercial uses occupy approximately 389 acres in the Township, predominantly along the 24th Avenue/M-25 corridor that is dominated by retail development. This area is one of the primary shopping corridors in St. Clair County and includes both big box and niche retail establishments in Birchwood Mall and various strip shopping centers. Additionally, these uses include hospitality uses, such as hotels, restaurants, and bars.

Office uses occur in some of the predominantly retail zones with approximately 101 acres of land being used for office or mixed-use office development, including medical office uses. The purpose of the Office Residential District

is to permit conversions of residences located along key commercial arteries to office uses that are compatible with adjacent residential neighborhoods and to encourage new development that is of a residential scale and character. The intent is to maintain the residential character of these neighborhoods and provide opportunities for office uses where adequate parking, lot size and buffering requirements are met.

INDUSTRIAL USES

Industrial uses occupy approximately 21 acres of land, which is less than 1% of the total land area in the Township. These uses generally consist of a cabinet shop on Simpson Road and two excavating companies (one in Section 19 and one in Section 29) and a landscaping company (in Section 20). Aside from these uses, the Township still lacks a true manufacturing/industrial base.

RECREATION AND OPEN SPACE USES

Recreation includes all public and private parkland, public and private golf courses, and public marinas. Land being used for recreation purposes accounts for roughly 674 acres of land. The Township owns and operates about 259 acres of parkland within the community. Three golf courses within the Township account for 354 acres of land. Fort Gratiot County Park and the balance of the recreation lands are occupied by small private recreation areas attached to residential subdivisions. A more detailed description of parks and recreation amenities in Fort Gratiot Township can be found in Chapter 7, which is the five-year parks and recreation plan for the Township.

VACANT

Includes lands not appearing to be put to any active use, that are devoid of manmade structures or features or discernible agricultural uses. There are roughly 2,418 acres of vacant property within the Township. Vacant, undeveloped land represents the single largest individual land use category. Most of the vacant land is found in the central and northern portions of the Township.

INSTITUTIONAL USES

Institutional uses account for 140 acres of land within the Township. These are generally government-owned buildings, such as schools, Township facilities like the Fort Gratiot Municipal Center, and churches.

COMMUNITY FACILITIES AND INFRASTRUCTURE

SCHOOLS AND COLLEGES

A wide range of educational opportunities and services are available to Township residents. They are described as follows:

PORT HURON AREA SCHOOL DISTRICT

The entire Township is served by the Port Huron Area School District. Three existing school sites are located within the Township: two elementary schools (Thomas Edison Elementary and Keewahdin Elementary) and a middle school (Fort Gratiot Middle School). On a system wide basis, elementary school enrollment has been maximized for the current school year and all school sites within the Township are full. The District also owns property within the Township for a fourth school site, located at the corner of Keewahdin Road and Campbell Road. No immediate plans have been made by the District with regard to the timing of construction and the type of school to be built on that site. However, based on population projections presented earlier in this text, it is expected that there will be approximately 1,800 elementary school age children living in the Township in 2030. Given a maximum

recommended enrollment of 500 pupils per elementary school, at least one new elementary school will be needed to accommodate these children.

ST. CLAIR COUNTY RESA

The St. Clair County Regional Educational Service Agency (RESA) provides adult education services, vocational programs and special education services to eight school districts in the County, including the Port Huron Area School District. These services are provided by facilities at the Educational Service Center, located at 499 Range Road in the City of Marysville.

BLUE WATER MIDDLE COLLEGE

The Blue Water Middle College Academy provides St. Clair County students the opportunity to earn a high school diploma and a college associate degree at no cost by attending school for an extra year.

This is accomplished by progressively transitioning high school students into the college environment beginning in 11th grade and continuing through year 13. The Blue Water Middle College is modeled on schools elsewhere in Michigan and the nation that blend high school and college classes.

ST. CLAIR COUNTY COMMUNITY COLLEGE (SC4)

St. Clair County Community College (SC4), located at 323 Erie Street in Port Huron, is a comprehensive community college offering associate degrees in both transfer and occupational areas. In 2018 the college added dorms. SC4's student residence hall is just steps away from classes and campus life in downtown Port Huron. Referred to as "The Dock", housing units are fully-furnished and provide up to 80 students with easy access to the area's great dining and entertainment options, recreation and outdoor activities, and potential employment opportunities with local businesses. Additionally, all students living in housing pay in-district tuition rates. International students do not receive in-district tuition rates. In 2019, SC4 had a winter enrollment of 3,455. The college provides the freshman and sophomore courses needed to fulfill the requirements for transfer to a senior college or university.

The SC4 University Center is an educational center that houses programs and courses offered by several universities. SC4 has formal agreements with Walsh College, Franklin University and Capella University to provide convenient online bachelor's and master's degree completion programs. SC4 has also acquired a strategic partner in Kettering University to offer several Engineering degree programs.

Extension courses are offered through the following university partnerships : Ferris State University, Siena Heights University, Central Michigan University, Wayne State University, University of Michigan-Flint, Saginaw Valley State University, Walsh College and Madonna University. SC4 also has a Joint Admission Program with Oakland University, called SC2O, which allows students to ease transitions to earning a Bachelor degree.

Currently St. Clair County Community College offers approximately 55 associate degree and certificate programs, and more than 55 transfer options. The college offers eleven online degree and certificate programs.

In addition, lifelong learning and training is offered through SC4's "Workforce Training Institute." at the Citizens First Michigan Technical Education Center, which provides customized training programs in leadership, management, customer service, computers, allied health, construction, manufacturing, energy, environment and fire and

emergency services. Classes are presented on campus, online and at company sites.

THE CULINARY INSTITUTE OF MICHIGAN - PORT HURON

Baker recently added a Culinary Arts Program by opening a Port Huron campus for Baker College's Culinary Institute of Michigan (CIM), complete with dormitories. This is a world-class learning environment in a brand new, state-of-the-art facility.

Located near the shores of Lake Huron and the St. Clair River, the Culinary Institute of Michigan, Port Huron is a state-of-the-art facility specifically designed to meet the needs of students studying the culinary arts. Fully furnished new residence halls are located just steps from the CIM.

With open-kitchen designs, the Culinary Institute of Michigan, Port Huron was built to accommodate the European-style of culinary training and education. Students study under award-winning chefs, work with top-of-the-line equipment, and get an education based on programs which have earned accreditation from the American Culinary Federation (ACF).

In the classroom, students receive the personalized attention they need. Our programs have the lowest instructor-to-student ratio of any culinary program in the state of Michigan. Students are also able to gain real-world, hands-on experience by working in COURSES, our student-run restaurant.

Graduates of our culinary programs receive a well-rounded education that helps them understand the foodservice industry from both the technical and business perspective.

EMERGENCY SERVICES

Among the most important services provided by local government are the public safety services of police and fire protection. Police and fire fighting facilities are important because they protect residents, businesses, and industries from financial loss and personal injury, and because they can substantially reduce the cost of property insurance.

Fort Gratiot Township has a contract with the St. Clair County Sheriff's Office for police protection and law enforcement coverage. They currently have one deputy day and night and an additional deputy for six hours each day. Police protection is paid for through a voted millage.

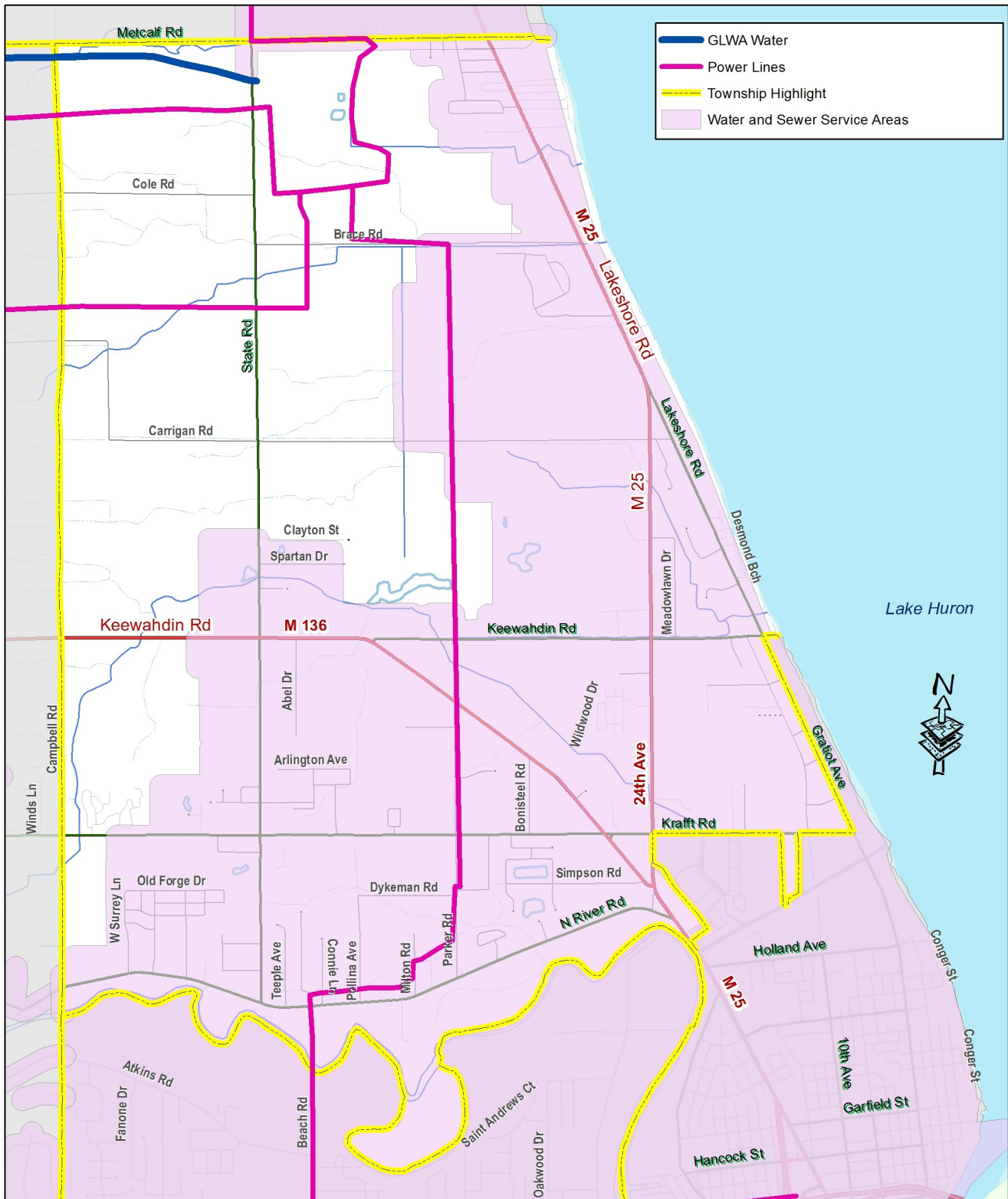
DEPARTMENT OF PUBLIC WORKS

The Township Public Works Department is responsible for the upkeep and maintenance of the water and sewer system and the Township cemetery. As the community grows, increased demands are placed on these systems to provide the necessary infrastructure required for commercial, industrial and residential development.

SEWER SERVICE

Fort Gratiot Township is one of several communities in the Port Huron urban area that is participating in the regional sewer system. As part of this system, the Township has a contract with the City of Port Huron wastewater treatment plant. In exchange for participating in the maintenance and operation of this facility, the Township reserves for itself a portion of the capacity of the plant to serve existing and anticipated development.

Utilities



Map Source: St. Clair County Master Plan

MAP 2-6



Sanitary sewers are currently available to the more developed portions of the Township, with 51 miles of pipe and 894 manholes (structures).

WASTE DISPOSAL

Residential waste, yard waste and recycling services are handled by Fort Gratiot Township

WATER SERVICE

Public water, like sanitary sewer services, is also purchased by the Township from the City of Port Huron under the terms of a rate ordinance between the two communities. The Township subsequently resells the water to those residents and businesses that are tapped into the system, 5,052 water customers with 70 miles of pipe and 1,110 distribution valves. The 2019 Water Quality Report can be accessed online at <https://fortgratiottwp.org/public-works/>.

TOWNSHIP CEMETERY

There are two cemeteries located in Fort Gratiot Township; Sunset Memorial Gardens on Keewahdin Rd and Mt. Hope Catholic Cemetery on Krafft Rd.

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3

TRANSPORTATION



IN THIS CHAPTER:

- ▶ REGIONAL TRANSPORTATION OVERVIEW
- ▶ CLASSIFICATION OF STREETS AND ROADS
- ▶ TRAFFIC VOLUMES IN FORT GRATIOT TOWNSHIP
- ▶ TRAFFIC CRASH ASSESSMENT
- ▶ PAVEMENT SURFACE EVALUATION AND RATING
- ▶ PUBLIC TRANSIT AND NON-MOTORIZED TRANSPORTATION
- ▶ TRAILS AND GREENWAYS IN FORT GRATIOT TOWNSHIP

INTRODUCTION

This chapter provides an overview of local and regional circulation patterns on roads within the Township. Traffic counts, crashes, and other transportation studies were studied to identify necessary future road improvements. Multi-modal transportation, public transit, and non-motorized transportation issues are also examined.

A transportation system is made up of a network of roads, highways, rail lines, airports, bikeways, and pedestrian ways. The purpose of a transportation network is to move goods and people from one location to another. Different land uses and the intensity of those uses will influence the performance and stability of that network. In much the same way, the type and size of the transportation network will affect the rate, pattern, and intensity of growth in a community.

The transportation component of this Master Plan has a number of critical functions:

- ▶ It serves as a reference guide regarding the transportation system within the township
- ▶ It sets a vision for future motorized and non-motorized transportation needs within the township
- ▶ It promotes a better understanding of the land use/transportation interface and how comprehensive planning can be better integrated

REGIONAL TRANSPORTATION OVERVIEW

St. Clair County is one of seven counties surrounding the Detroit metropolitan area. The county encompasses an area of 724 square miles. The Port Huron-Marysville urban area stretches from the village of Lexington, south along the shores of Lake Huron and the St. Clair River, ending just north of the City of Algonac.

The St. Clair County road network is comprised of 2,200 miles of roads. Of that total, 1,130 miles are paved and 1,070 miles are unpaved. There are 366 bridges in the county – the majority of which are owned and maintained by the county road commission. More than 300 bridges cross lakes, rivers, and streams with one-to-two lanes.

Fort Gratiot Township is located in the northeast portion of the county, north of the City of Port Huron and Port Huron Township, south of Burtchville Township, and west of Clyde Township. It partially borders the Black River to



the south of the township and fully borders the St. Clair River to the east of the township. The boundary for the township does not follow the typical 36 square mile land area. Instead, Fort Gratiot Township covers a land area of 16.1 square miles. The largest Michigan cities in close proximity are Flint and Detroit. Flint lies 69 miles directly west of Port Huron and Detroit is 59 miles southwest of Port Huron.

A significant amount of traffic travels north and south through the township on M-25. Serving as the main commercial corridor in the County, residents from St. Clair County, as well as nearby counties, will travel to get to Fort Gratiot Township - especially those to the north and west. Regional traffic between the cities of Port Huron, Flint, and Detroit also passes through the Township.

Though there are no freeways in the township. The I-69/I-94 Interchange is just south of Fort Gratiot providing easy access from the surrounding areas and Sarnia, Ontario, Canada across the St. Clair River.

Other major traffic generators include the commercial corridor with big box stores such as Walmart, Meijer, Lowes Home Improvement, Home Depot, Kroger, medical facilities, automotive services, and several chain and local restaurants. Additionally, Birchwood Mall is located on M-25 in Fort Gratiot, generating traffic and attracting shoppers from both the region and from Canada.

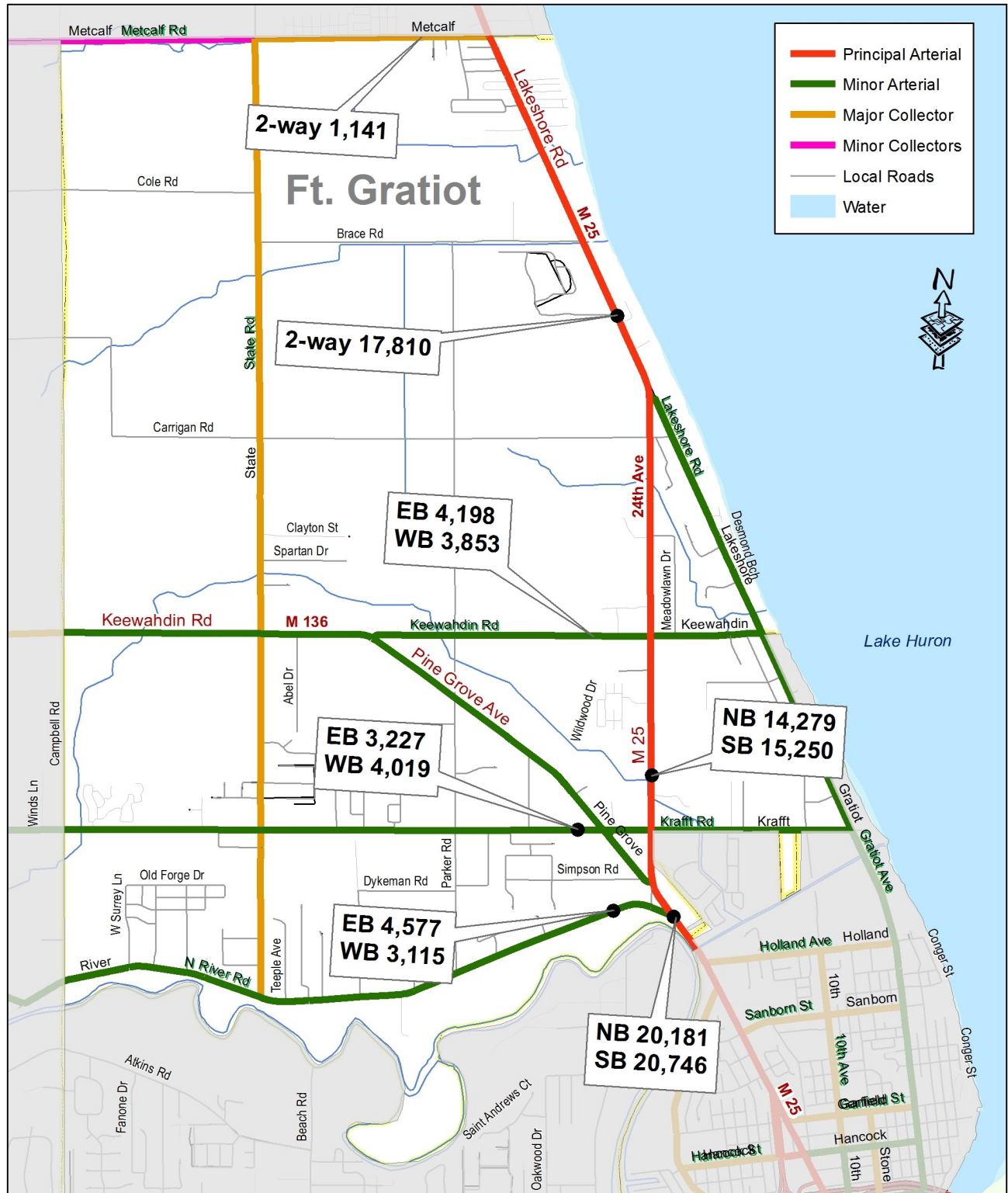
ROAD NETWORK IN FORT GRATIOT TOWNSHIP

There are approximately 59 miles of public roadway in Fort Gratiot Township, encompassing four major classifications which are described below. Based on Federal Highway Administration (FHWA) criteria, the functional classification system for rural communities, in ascending order, is as follows. See Map 3-1.

TABLE 3-1: FUNCTIONAL ROAD CLASSIFICATIONS IN FORT GRATIOT TOWNSHIP

Road	Classification	Most Recent Annual Average Daily Traffic (AADT) Count	Year and Location of Count
M-25	Principal Arterial	NB: 14,279 SB: 15,250	2015, Heritage Grove
Pine Grove	Principal Arterial	NWB: 3,074 SEB: 3,369	2015, Krafft
M-136	Minor Arterial	NWB: 2,971 SEB: 3,422	2015, Limburner
Krafft Road	Minor Arterial	EB: 3,277 WB: 4,019	2015, Pine Grove
Keewahdin Road	Minor Arterial	2-Way: 7,140	2015, State
North River Road	Minor Arterial	EB: 4,577 WB: 3,115	2015, M-25
Gratiot Road	Minor Arterial	2-Way: 7,200	2002, Krafft to Keewahdin
Lakeshore Road	Minor Arterial	2-Way: 17,810	2016, 24 th St
Metcalf Road	Major Collector	2-Way: 1,141	2015, M-25
State Road	Major Collector	2-Way: 1,500	2012, North River to Metcalf

Functional Classification & AADT

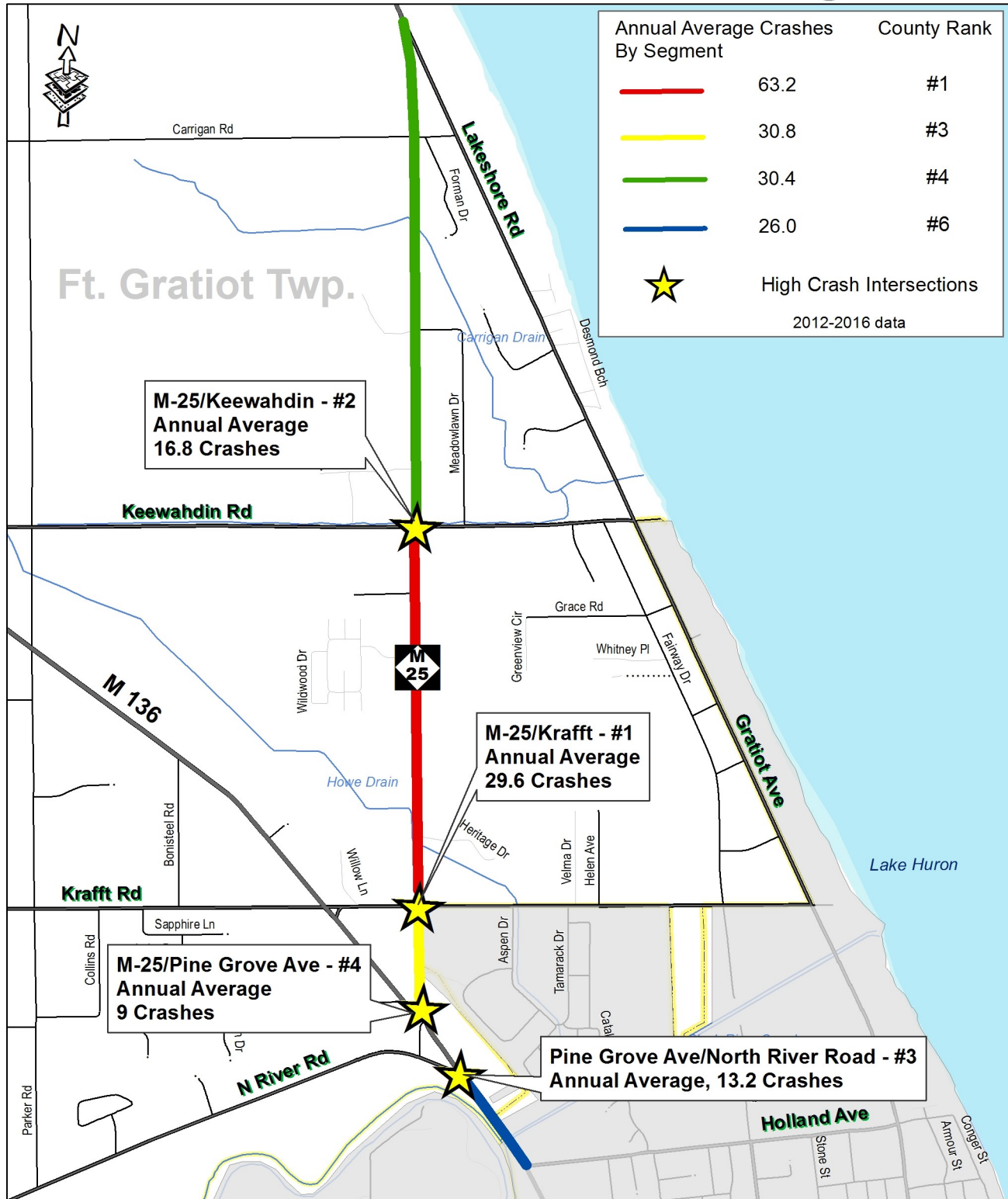


Map Source: SEMCOG, collected in 2012, 2015, 2016. Average Daily Traffic

MAP 3-1



Crash Statistics: Intersections & Segments



Map Source: SEMCOG

MAP 3-2

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LOCAL STREETS AND ROADS

Rural local streets and roads serve primarily to provide direct access to adjacent land and to provide service to travel over relatively short distances as compared to collectors or other higher systems. These streets have a right-of-way of 66 feet.

COLLECTORS

These roads collect traffic within residential neighborhoods or within areas of concentrated land use development such as industrial or multiple housing areas, and channel it to the arterial roadways. Local property access should be only a secondary function of collector streets. Collector streets have a right-of-way of 86 feet. Collector routes generally serve travel of primarily intra-county rather than statewide importance and constitute those routes on which predominant travel distances are shorter than on arterial routes. Consequently, more moderate speeds may be typical, on average.

MINOR ARTERIALS

Minor arterial roads in rural areas typically link cities and larger towns and form an integrated network providing interstate and intercounty service. They move traffic on a county-wide basis and act as principle feeder routes to the principle arterials. Their main function is to carry large volumes of traffic and to act as a secondary movement to provide access to adjacent properties. The right-of-way requirement is 120 feet, because as development occurs and traffic volumes increase these roads will need to become wider in order to accommodate.

PRINCIPAL ARTERIALS

Principal arterial roads serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel. Interstates are generally part of a nation-wide system of limited access highways designed to carry transient traffic around, through, or between urban centers with minimum conflict with local traffic. They carry a large amount of traffic at maximum speeds. These roads are multi-laned and do not provide access to adjacent properties. The right-of-way width requirements for a interstate usually approximate 300 feet. State Highways, business loops, and other major thoroughfares are in most cases classified as principal arterials as well. There is no parking allowed along these roadways, and it is common for such road classifications to have a right-of-way width of 120-150 feet, with four to five lanes depending on the need for an additional turning lane.

TRAFFIC VOLUME

Existing traffic volumes for roadways throughout Fort Gratiot Township vary, depending upon the location of the segment studied or the date the study was conducted. It is critical to consider existing traffic volumes when considering future development within the township, plans for roadway improvements or projecting future capacity. The Township should work with the St. Clair County Transportation Study (SCCOTS), the St. Clair County Metropolitan Planning Commission (MPC), and the St. Clair County Road Commission (SCCRC) to evaluate existing conditions and establish an action plan for review of specific traffic management issues.

Under optimum conditions, a two-lane road has a capacity for up to 12,000 vehicles per day. The majority of roads in Fort Gratiot Township have two lanes and carry less than 5,000 vehicles per day, a side from State Highway M-25 which carries up to 20,000 AADT.

The two roads that are classified as Principal Arterials have an Annual Average Daily Traffic (AADT) ranging from 3,000 to 18,000 AADT. See Table 3-1 for more details. Keewahdin Road is classified as a Minor Arterial and is in the 7,000 AADT range.

TABLE 3-2: TRAFFIC CRASHES IN FORT GRATIOT TOWNSHIP, 2012-2016

Crash Severity	# of Crashes	2012	2013	2014	2015	2016	% of Crashes
Fatal	4	2	0	0	1	1	0.3%
Incapacitating	22	4	3	6	2	7	1.6%
Other Injury	215	53	44	41	40	37	15.5%
Property Damage Only	1,143	204	226	242	248	223	82.6%
Total	1,384	263	273	289	291	268	100%

Source: SEMCOG Community Profile, 2017

TABLE 3-3: HIGH CRASH INTERSECTIONS IN FORT GRATIOT TOWNSHIP, 2012-2016

Local Rank	County Rank	Intersection	Annual Average 2012-2016
1	1	M-25 @ Krafft	29.6
2	4	M-25 @ Keewahdin	16.8
3	8	Pine Grove Ave @ North River Road	13.2
4	17	M-25 @ Pine Grove Ave	9
5	25	Pine Grove @ 24 th Ave	6.8

Source: SEMCOG Community Profile, 2017

TABLE 3-4: HIGH CRASH ROAD SEGMENTS IN FORT GRATIOT TOWNSHIP, 2012-2016

Local Rank	County Rank	Segment	From Road to Road	Annual Average 2012-2016
1	1	M-25	Krafft Road – Keewahdin Road	63.2
2	3	M-25	Pine Grove Ave – Krafft Road	30.8
3	4	M-25	Keewahdin Road – Lakeshore Rd	30.4
4	6	Pine Grove Ave	Holland Ave – North River Road	26
5	11	Lakeshore Rd	M-25 – Metcalf	19.6

Source: SEMCOG Community Profile, 2017

TRAFFIC CRASH ASSESSMENT

Traffic crash frequency is commonly used as a measure in identifying existing traffic safety issues. As shown in Table 3-2, there were 1,384 traffic crashes in Fort Gratiot Township between 2012 and 2016. Of that total, approximately 83% of those crashes resulted in property damage only. During that time period, there were four fatal crashes. See Map 3-2.

KEY CORRIDORS IN FORT GRATIOT TOWNSHIP

PINE GROVE/M-25

This is the main commercial corridor in St. Clair County, and at certain times of the day the most congestion in the entire county as well. The traffic signals have been synchronized a handful of times by the Michigan Department of Transportation to help with the congestion issues. There are many restaurants, stores, and medical facilities along this corridor. Being that this is the main commercial corridor and its location off the Blue Water Bridge, an international border, it is attractive to our Canadian neighbors and they do a great deal of business at these stores and restaurants. The Township acknowledges this and wants to keep this relationship strong.

The Township should identify placemaking opportunities and other enhancements for this corridor to create a unique identity and sense of place for the community. This could include elements such as street lights, signage, pedestrian crosswalks, and flowers. These types of improvements could be eligible for funding assistance through the Federal Transportation Alternatives Program (TAP).

KRAFFT ROAD

This is a main east-west corridor in the township with a variety of land uses, including Port Huron Northern High School, several businesses and a large amount of residential properties. There are some sidewalks on Krafft Road east of M-25, near the businesses and school. This corridor is mainly built up, meaning there is no vacant land for future development, though there may be some redevelopment opportunities.

KEEWAHDIN ROAD

This is another major east-west corridor in the township with a mix of commercial, office, and residential uses. Some main points of interest on this corridor are Fort Gratiot Middle School, the trailhead to the Fort Gratiot Trail, medical offices, the Fort Gratiot Municipal Center, and residences.

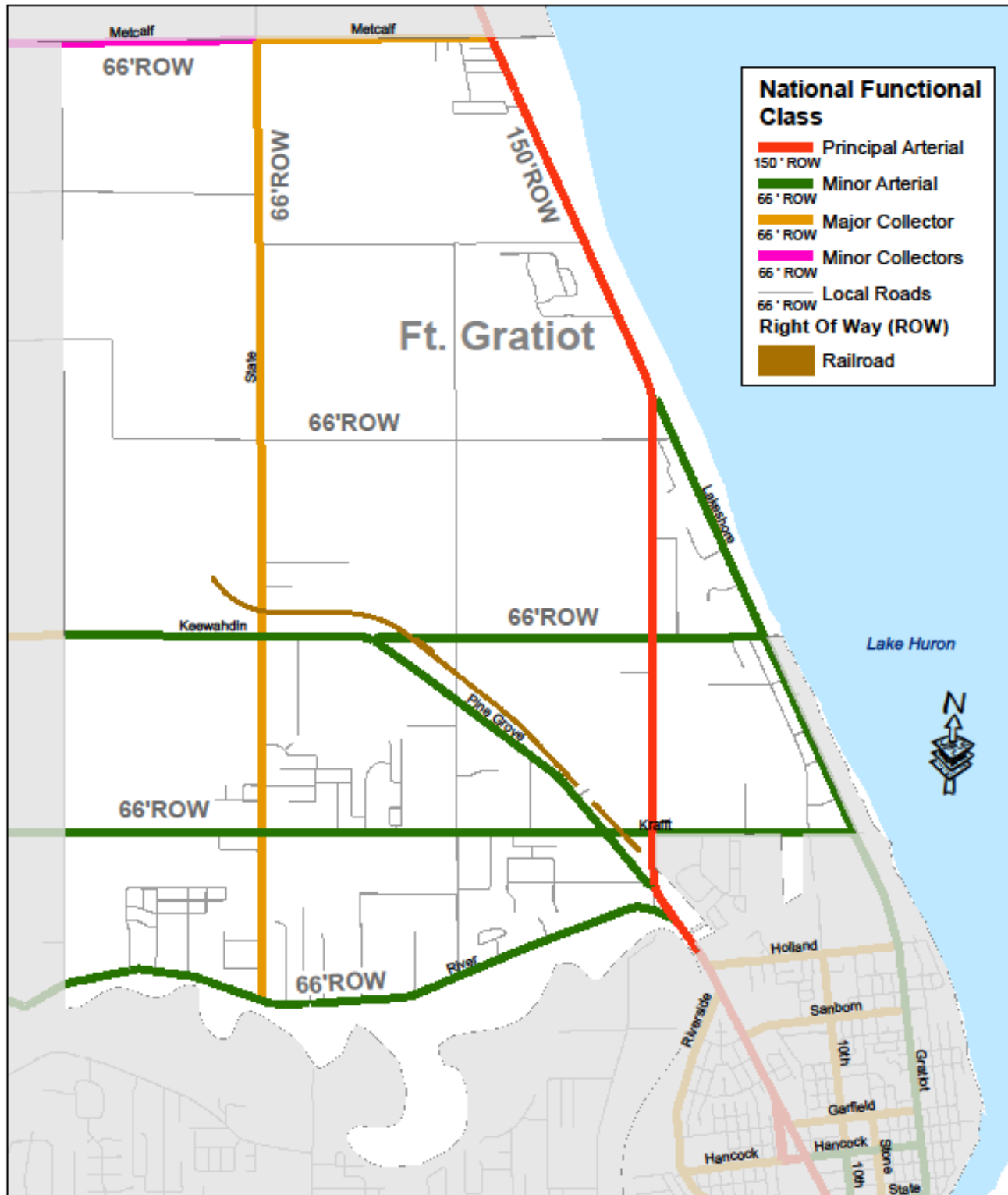
NORTH RIVER ROAD

North River Road had a “road diet” completed in summer 2018, changing the 4-lane road to a 3-lane road (one-lane in each direction and middle turn lane). The majority of the land use along this road way is residential, which means that there is a significant amount of pedestrian and bicycle traffic on this road. This road diet will help make a safer environment for all the users, while the vehicles are inclined to travel at slower speeds. Some other uses on this corridor are the North River Road Park along the Black River, a golf course, churches, a handful of businesses, and an elementary school off of one of the side streets. More information about the road diet can be found in the “Complete Streets” section later in this chapter.

PAVEMENT SURFACE EVALUATION AND RATING (PASER)

Each year, the St. Clair County Metropolitan Planning Commission (MPC) performs a visual inspection to evaluate pavement surface conditions on 50% of the federal-aid roads in St. Clair County. The next year, the same pavement

Thoroughfares

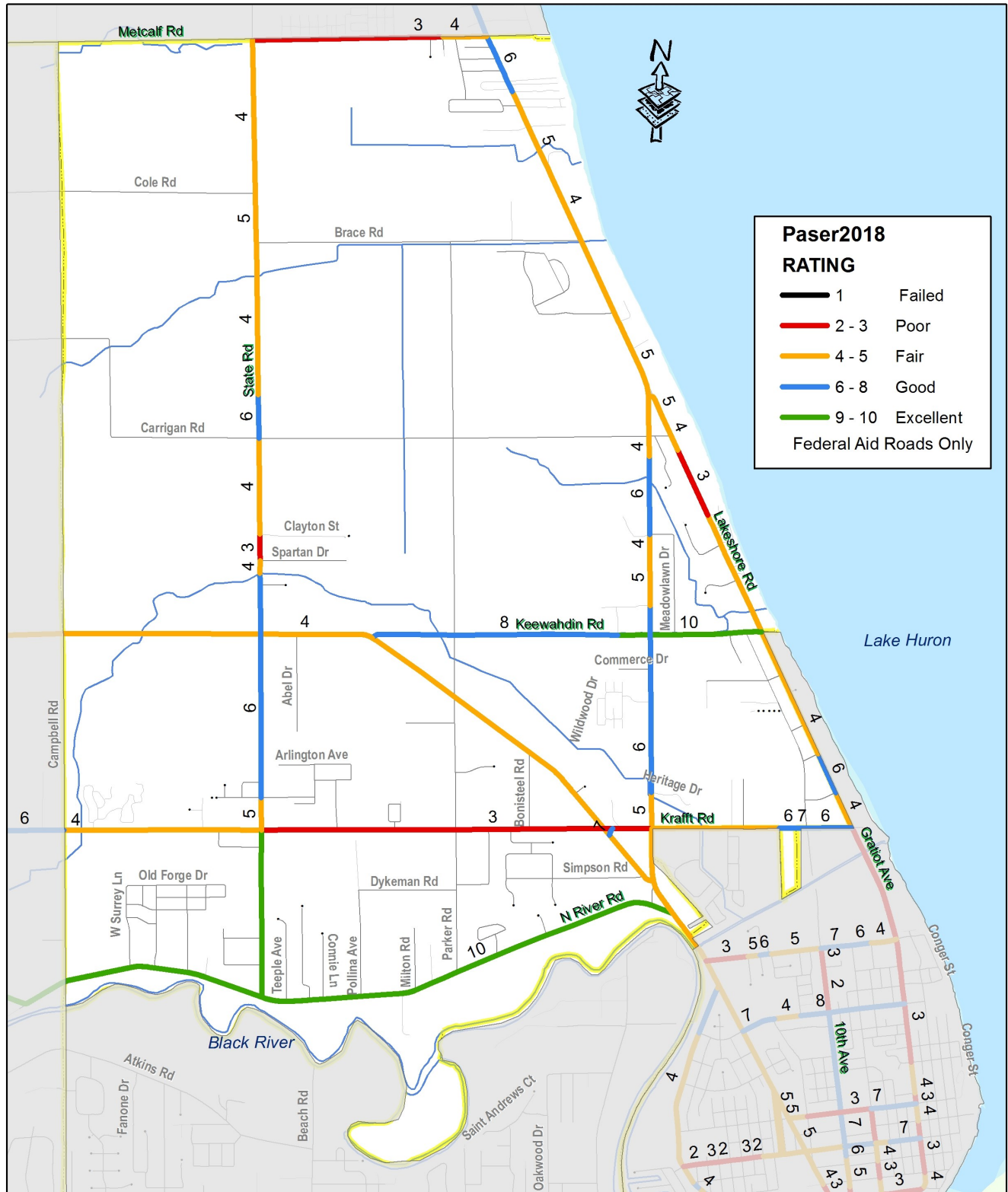


Map Source: St. Clair County GIS

MAP 3-3



PASER Rating



Map Source: 2018 PASER collection

MAP 3-4

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evaluation is performed for the other 50% that was not done the previous year. Typically, PASER evaluates pavement distress in asphalt and concrete roads. For asphalt roads, the rating team looks at surface defects, surface deformation, cracks, patches, and potholes. For concrete roads, the rating team evaluates joints, pavement cracks, pavement deformation (such as settlement or heave, utility repairs, patching, etc.), and surface defects (such as polishing, spalling, shallow reinforcing, etc.). In reviewing various defects, it is important to consider both the severity and extent. Typically, a defect will begin slowly and gradually become more severe. Rating the roads helps communities and road agencies manage road maintenance in an effective and fiscally responsible manner.

The most recent PASER data for Fort Gratiot Township is from 2016. The results of that evaluation showed that of all lane miles that were rated, none were in “Good” condition, 31% were rated as being in “Fair” condition, and 69% were rated as being in “Poor” condition. See Map 3-4.

PROPOSED ROAD IMPROVEMENTS

The following road improvements are suggested for county roads within Fort Gratiot Township:

- ▶ Pave Metcalf Road from State Road to the western Township limits
- ▶ Pave Parker Road between Keewahdin and Brace Road
- ▶ Pave Carrigan Road from M-25 to Parker Road
- ▶ Pave Campbell Road between Krafft Road and Keewahdin Road
- ▶ Extend Commerce Drive to connect with Rosewood Drive

PUBLIC TRANSPORTATION

The Blue Water Area Transportation Commission (BWATC) operates bus service in the greater Port Huron area, including Fort Gratiot Township. There are three routes that run throughout the township; all three are regularly scheduled routes with late night and Dial-a-Ride services. Bus service operates from 5:15 a.m. to 11:00 p.m. Monday through Thursday, 5:15 a.m. to 3:00 a.m. (Saturday) on Friday, and 7:45 a.m. to 3:00 a.m. (Sunday) on Saturday. See Table 3-5 for more information on routes running through the Township.

The BWATC also operates a fixed commuter route that connects the greater Port Huron area with employment centers in Macomb County and Metro Detroit through the SMART transportation system at 23 Mile Road and Gratiot Avenue in Chesterfield Township. The route operates Monday through Friday and makes three round trip runs per day (two in the morning, one in the evening). It starts in Port Huron and has stops in Marysville and St. Clair.

TABLE 3-5: BLUE WATER AREA TRANSIT ROUTES IN FORT GRATIOT TOWNSHIP

Route	Points of Interest
Route 5	Downtown Port Huron, Pine Grove Park, McLaren Port Huron Hospital, The Grove Mall, Sanborn Park, Birchwood Mall, Home Depot, St. Clair County Community College
Route 6	McLaren Port Huron Hospital, Lakeside Park, Port Huron Northern High School, Home Depot, Connecting with Fort Gratiot Township Dial-a-Ride, St. Clair County Community College, Peru Village, Downtown Port Huron
Shopper Shuttle	Home Depot, Court of Flags Mall, Aspen Grove, North Port Towers, Mercy Health Care. Birchwood Mall, Wal-Mart, Kohl's, Best Buy, Staples, Meijer

Additionally, there is an express route that runs to and from the same stop in Macomb County using Interstate 94.

Residents and visitors alike can contact BWATC directly for further route information.

NON-MOTORIZED TRANSPORTATION

Non-motorized traffic refers to quiet modes of transportation, such as bicycles, in-line skates, riding horses, and pedestrians of all ages and physical abilities. Non-motorized transportation can be an important alternative to the automobile as a source of recreation and as a means of commuting to work, school, and to shopping, social, and civic destinations.

COMPLETE STREETS

“Complete Streets” is a national movement with numerous states, local governments, and even the US Transportation Secretary espousing the concept for federal transportation projects. Governor Granholm signed the Complete Streets legislative package into law on August 1, 2010. The legislation does not mandate any local road agency adopt a Complete Streets policy or spend any additional dollars for non-motorized facilities. While adoption of a Complete Streets policy is purely optional for local governments, the changes in the law have the potential to benefit every community.

Streets and roadways represent the largest component of public space in every community. The Complete Streets concept attempts to make communities reconsider the intended function and/or use of a corridor. Complete Streets are designed and operated to enable safe access for all users. Pedestrian, bicyclist, motorist, and transit riders of all ages and abilities must be able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to stores, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit stops.

Creating complete streets means transportation agencies must change their approach to community roads. By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers,

What does a Complete Street Look Like?



Examples of Complete Streets from Mercer County, New Jersey. Source: West Windsor Bicycle and Pedestrian Alliance, 2018

transit users, pedestrians, and bicyclists – making your town a better place to live. The National Complete Streets Coalition has identified the elements of an ideal complete streets policy to help local municipalities write their own policies or Complete Streets plans.

There is no singular design prescription for Complete Streets. Each one is unique and should respond to the individual community's population and needs. A Complete Street may include sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. A complete street in a rural area will look quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road. Table 3-6 summarizes Complete Streets design considerations and potential development impacts or opportunities.

North River Road: Road Diet

This project was completed in 2018, after the St. Clair County Road Commission completed a study and used federal funding to reduce the number of travel lanes and provide non-motorized components to this roadway. This is one of the first projects of this type to be implemented in St. Clair County, there are several more to come. The road commission held numerous public open houses and chances for comments as well as public education opportunities. The main reason to do a road diet is to provide a safer environment by reducing travel speeds and allowing pedestrians and bicycles to have a space to travel along this corridor.

Implementing a Complete Streets Policy

A Complete Streets policy has the potential to end the project-to-project struggle to design better facilities by requiring all road and transportation improvement projects to begin with evaluating how the street serves all users—pedestrians, bicyclists, public transportation vehicles and passengers, trucks, and automobiles. Adopting a Complete Streets policy may require changing existing policies and practices of local communities and/or transportation agencies. In some cases it may be difficult to adopt a new procedure or to modify design guidelines. Furthermore, adopting a Complete Streets policy may require additional training for planning and engineering staff which will take time and cost money.

Ultimately, the desired outcome of a Complete Streets policy is one in which a multi-modal street becomes the default design and only after a formal exception process is a non-compliant design allowed. The U.S. Department of Transportation's design guidance for *Accommodating Bicycle and Pedestrian Travel: A Recommended Approach*, names three exceptions where roadways can lack facilities for all users:

- ▶ Excessive Cost
- ▶ Absence of need
- ▶ Roads where bicyclist and pedestrians are prohibited

Some additional challenges for implementing a Complete Streets policy may include:

- ▶ Lack of right-of-way in cramped thoroughfares may make multi-modal improvements difficult, costly, or impossible
- ▶ Overcoming the misconception that Complete Streets cost more to build than traditional streets when in fact Complete Streets often cost less to construct. By fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including non-motorized facilities are minimized
- ▶ Ensuring accurate transportation analysis as current methodologies for studying traffic may result in misleading results. For example, some current traffic methodologies may fail to consider how the presence

of transit in a mixed-use corridor could potentially lower trip generation rates and thus reduce traffic volumes and congestion.

An Ideal Complete Streets Policy

Regardless of a policy's form, the National Complete Streets Coalition has identified important elements of a comprehensive Complete Streets policy. These elements could potentially be used in evaluating transportation projects within St. Clair County. A Complete Streets policy should include the following:

1. Includes a vision for how and why the community wants to complete its streets. Specifies that 'all users' includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses and automobiles. Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes.
2. Is adoptable by all agencies to cover all roads.
3. Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
4. Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
5. Directs the use of the latest and best design standards while recognizing the need for flexibility in balancing user needs.
6. Directs that Complete Streets solutions will complement the context of the community.
7. Establishes performance standards with measurable outcomes.
8. Includes specific next steps for implementation of the policy.

TRAILS/GREENWAYS

There are several significant multi-use paths in the region and in Fort Gratiot Township. A "greenway" refers to trails or pathways, designed for non-motorized traffic, that connect residential areas to other residential areas or commercial districts. Greenway resources refers to the total collection of trails and parks within a community or geographic area. Greenway resources include land and water areas, all of which function as an integrated system that provides more value than the sum of its individual parts.

St. Clair County has a conceptual Greenways Plan, which illustrates a system of trails and conservation corridors with significant natural features, such as soils, hills and valleys, drains, streams, rivers, wetlands, lakes, shoreline, woodlands, and wildlife habitat. The plan's objective is to maintain those natural features in a balanced ecological state while also allowing communities to grow in a controlled manner.

WADHAMS TO AVOCA TRAIL

The Wadhams to Avoca Trail which is located on property that is owned and maintained by the St. Clair County Parks and Recreation Commission (PARC) and managed as if it is a county park. The trail is 12 miles long now, as it starts at Avoca and travels east through Wadhams and ends at Lapeer Road, just west of the I-94 overpass at the outskirts of the City of Port Huron. There are plans to extend this trail to Yale.

BRIDGE TO BAY TRAIL

St. Clair County is working with 13 local communities to develop a 54-mile long network of non-motorized recreational trails linking the shoreline communities of New Baltimore (Macomb County), Algonac, Marine City, St. Clair, Marysville, Port Huron, and Lakeport. Over 25 miles of paved trail have already been constructed in various sections utilizing funding from the Michigan Department of Transportation (MDOT), the Michigan Department of Natural Resources and Environment (MDNRE) and private grants. Future plans call for the Bridge to Bay Trail to

connect with the Macomb Orchard Trail in Richmond and the Wadhams to Avoca Trail.

While the Bridge to Bay Trail ends at the Blue Water Bridge in the City of Port Huron, there are some extensions of the trail in Fort Gratiot Township. One of which being the Scenic Bike Route along Lakeshore Road and a widened paved shoulder along M-25 all the way up the coast of Lake Huron.

FORT GRATIOT BIKE PATH AND NATURE PRESERVE

This is over 90 acres of beautiful, serene land located at M-25 and Keewahdin consisting of almost four miles of paved trail. There are several access points and locations to park adjacent to this land.

PROPOSED TRAILS AND CONNECTORS IN FORT GRATIOT TOWNSHIP/COUNTYWIDE TRAILS PLAN

St. Clair County, along with the Community Foundation of St. Clair County and numerous local and regional partners, developed an updated countywide Trails Plan in 2019 that identifies existing gaps in countywide non-motorized trail networks, identifies preferred alternatives to eliminate those gaps, and prioritizes the timing and sequencing for completing needed connections. The overarching goal is to complete the Bridge to Bay Trail and Wadhams to Avoca trail networks, which includes connecting to the Macomb Orchard Trail and the Great Lake-to-Lake Trail Route #1, which runs from South Haven in the western part of the state to Port Huron in the eastern part of the state.

There were two gaps identified in Fort Gratiot Township; Fort Gratiot Preserve to Lakeshore and Lakeport State Park to Fort Gratiot Preserve. For the section from Fort Gratiot Preserve to Lakeshore, the proposed facility is an 8' side path. And for the section from Lakeport State Park to Fort Gratiot Preserve, the proposed facility is a painted 3' buffer on each side, with 5' bike lane (no additional pavement needed) OR create a buffered trail/side path on the side of the road. See Maps 3-5 and 3-6.

The Township should collaborate with countywide partners to implement the St. Clair County Trails Plan, as it represents the best opportunity to have a fully-connected regional trail network throughout St. Clair County.

SAFE ROUTES TO SCHOOL

Safe Routes to School (SR2S) is an international movement to make it safe, fun, and convenient for children to walk

FORT GRATIOT TO LAKEPORT STATE PARK (GAP 21)

Segment 21C/21D – SECONDARY | New Route

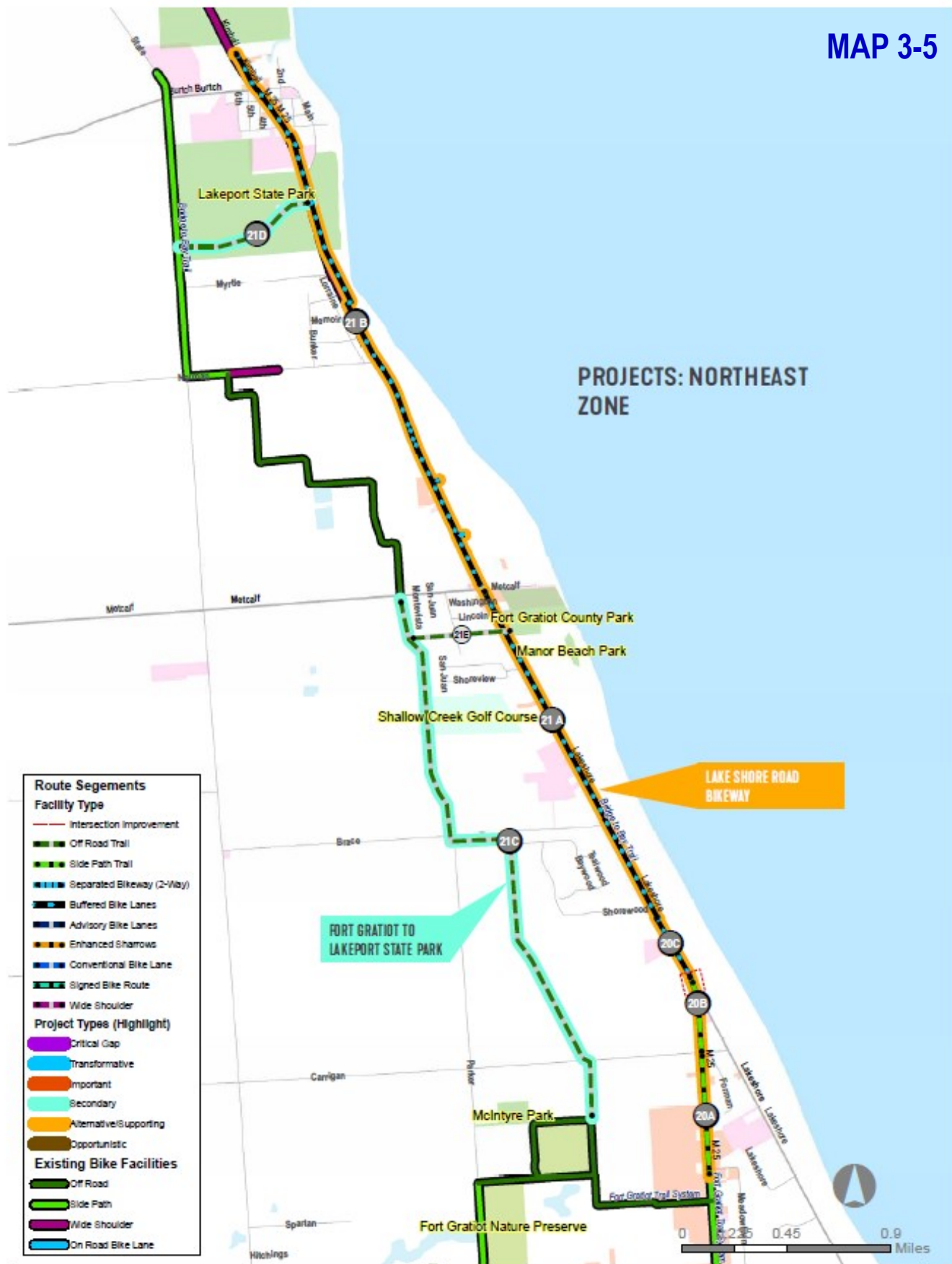
This proposed off-street trail would utilize mostly undeveloped natural lands and connect from Fort Gratiot Nature Preserve north to existing trails at Metcalf Road (east of Eastwood Drive). Implementation of this trail will require securing access easements through privately held property. A second section of off-street trail can be constructed through Lakeport State Park to provide a connection out to the lake front, utilizing the existing non-motorized bridge over Lakeshore Road.

LAKESHORE ROAD BIKEWAY (GAP 21)

Segment 20A/20B/20C/21A/21B – ALTERNATIVE

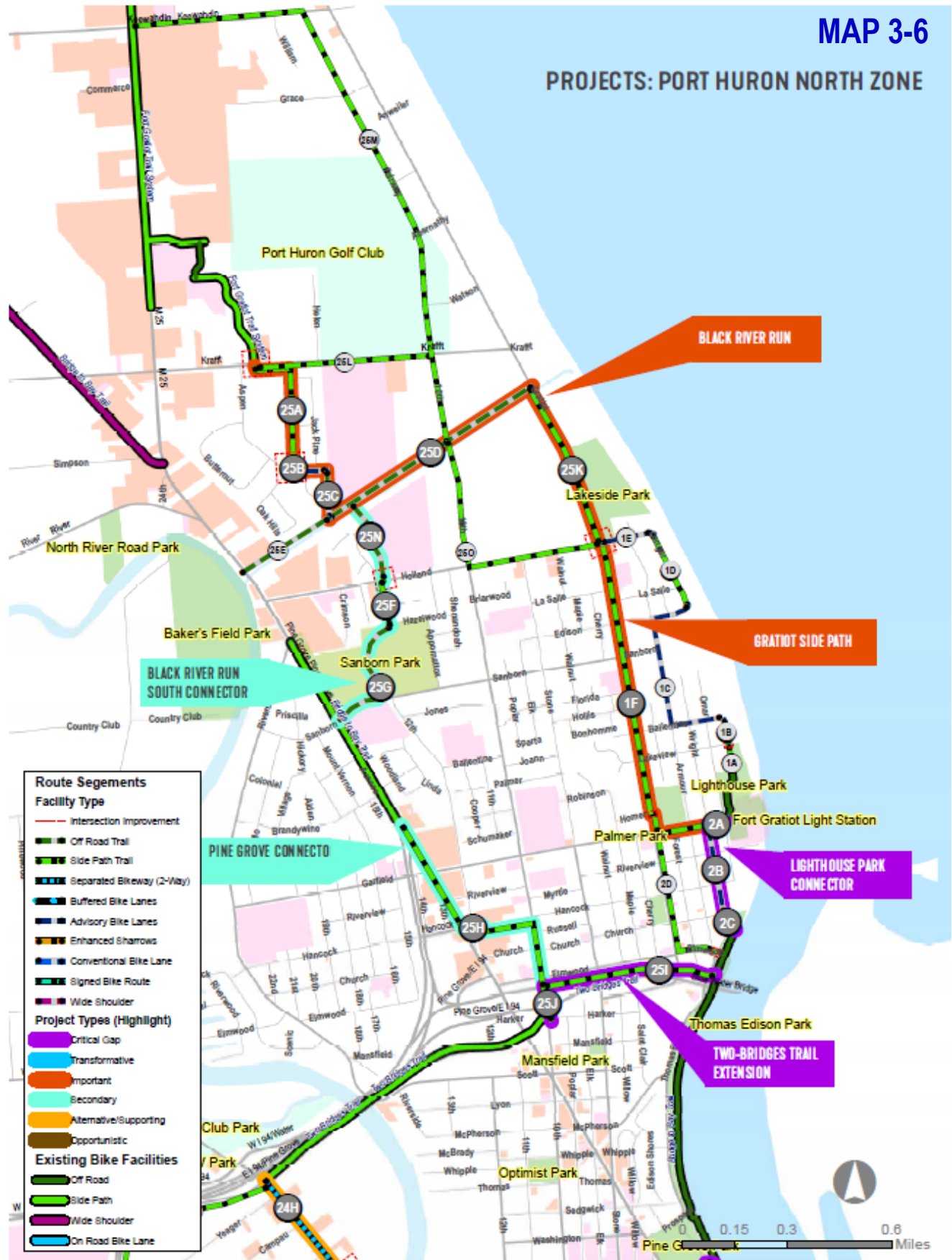
As a potential near-term alternative to the above route is to extend the existing side path on 24th Avenue (M-25) north to Lakeshore Road (segment 20A and 20B). Relatively wide shoulders along the length of the corridor allows for buffered bike lanes to be installed through lane striping and signage. While not a low LTS facility, it would provide a connection and help raise the visibility of bike riders along the corridor and moderate driving speeds.

MAP 3-5

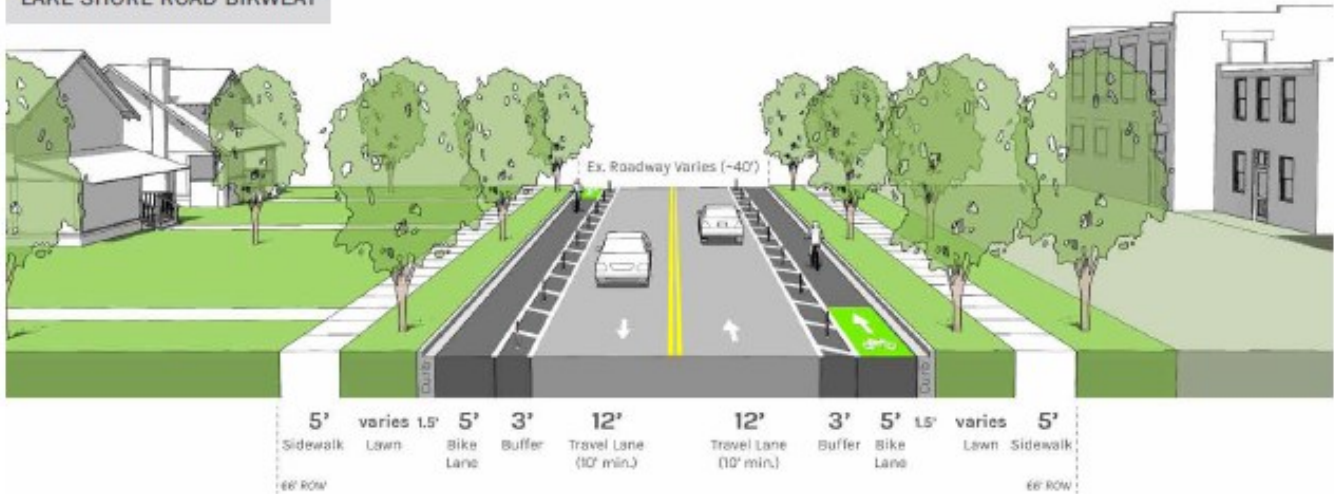


MAP 3-6

PROJECTS: PORT HURON NORTH ZONE



DESIGN APPROACH FOR LAKE SHORE ROAD BIKEWAY



or bike to school, including those with disabilities. The additional physical activity will make our children healthier as well as more mentally alert. Children walking or biking to school will make for less traffic around the school area, which means less fuel consumption and air pollution.

Pedestrian and bicycle safety is recognized as a concern in the township, a specific concern for school-aged children. The majority of the schools in Fort Gratiot Township are located on very busy roads where cars travel at unsafe speeds. The busses do not enter all of the subdivisions so children are asked to cross busy streets and wait for their bus on a road where vehicles are traveling at higher speeds. By providing safer routes to school with better accessibility these risks can be lessened.

AIRPORT

The St. Clair County International Airport, located in Kimball Township, is a “transport facility” with a 5,100-foot runway capable of accommodating some jet aircraft and a second 4,100-foot runway. The airport offers a year-round facility for the area and can accommodate larger jet planes, business and small passenger planes, as well as cargo planes.

Industrial facilities are now located in close proximity to the airport. It is a continuing trend that business executives owning facilities in many areas desire to be near airports. They are able to fly in, conduct business, and leave in a very short span of time. St. Clair County has an Air Industrial Park located at the airport.

Passenger air travel is primarily provided by Detroit-Wayne County Metropolitan Airport (70 miles away) in Romulus and Flint Bishop International Airport (80 miles away) in Flint. Both facilities also offer large-scale air freight service.

RAILROADS

There are no rail lines in Fort Gratiot Township, but there are several in adjacent townships and in the City of Port Huron. CN North America Railroad (Grand Trunk-GTW) and CSX (Chesapeake and Ohio) own the rail lines in St. Clair County.

The CN North America Railroad (Grand Trunk-GTW) has an east-west line that connects with the Chicago region and passes under the St. Clair River via the Paul M. Tellier Tunnel, connecting with London and Toronto, Ontario and Montreal, Quebec in Canada. This track usually carries two passenger trains per day. Currently, a passenger station for this track is located in the City of Port Huron on 16th Street. Amtrak operates this train and is looking to expand service sometime in the near future, as the ridership continues to increase every year. Another line connects the Port Huron area with the Detroit area; however, at this time this is strictly used for freight.

The CSX (Chesapeake and Ohio) Railroad has a main line between Ludington, Michigan, on the Lake Michigan shoreline, and Port Huron. This line carries between three and five trains per day. Connections are made from here to Milwaukee and Buffalo. The CSX Railroad has a track that parallels 32nd Street. This line is a branch connecting the Port Huron area with the Marine City area in the southern part of the county, providing rail service for industries located along the St. Clair River.

4

FUTURE LAND USE PLAN



IN THIS CHAPTER:

- ▶ AN INTRODUCTION TO FUTURE LAND USE PLANNING
- ▶ THE CONCEPT PLAN
- ▶ THE FUTURE LAND USE PLAN FOR FORT GRATIOT TOWNSHIP
- ▶ THE FUTURE LAND USE MAP

INTRODUCTION

The goal of land use planning is the improvement of the general welfare of the people of Fort Gratiot Township through the proper development of vacant land and, where necessary, the redevelopment of existing areas for new uses that create a better community in which to live, work, and recreate. In general, this land use plan is a guide for locating private and public uses in Fort Gratiot Township.

The land use plan is intended to be long range, comprehensive, generalized, flexible and regional, with the following broad objectives:

- ▶ Long range planning for land development to the year 2040.
- ▶ Comprehensive planning to provide for a variety of types of land uses, bearing a relationship to the land capacity and transportation system.
- ▶ Generalized planning based upon broad principles of land use allocations and relationships.
- ▶ Flexible planning that is able to adapt to changes, yet not detract from the total plan.
- ▶ Regional planning transcending arbitrary boundaries and which is an integrated part of the regional system.

The land use plan is more than just a graphic presentation. Behind the graphics and maps are spatial distributions and relationship reflecting the specific goals and strategies described in Chapter 6 of this master plan.

CONCEPT PLAN

The possible physical arrangement of the various land use on vacant ground are infinite in number. However, regional considerations, roads, existing land uses, soils, topography, population growth and economic potential are all constraints on the number of possible arrangements. The goals and objectives set out earlier in the master plan direct the possible array to a narrow band of alternatives. These possibilities are developed into a concept of the preferred general arrangement of land uses.

The long range land use plan for Fort Gratiot Township is based on analysis of the basic data presented in this plan of trends in the township and the surrounding region. The recommendations for the separate land uses are graphically and statistically presented in the following land use classifications:

1. Agricultural/Residential
2. Low Density Residential
3. High Density Residential
4. Uptown Business District
5. Neighborhood Commercial
6. Office Mixed Use
7. Recreation
8. Light Industrial/Utility
9. Development Focus Areas

The future land use plan for Fort Gratiot Township is designed so as to derive the maximum benefit for residents of the township. The land use plan illustrates the arrangement of land uses to meet the goals, capacity and trends in the township.

TABLE 4-1: FUTURE LAND USE, TOTAL ACREAGE

Land Use Category	Acres
Agricultural/Rural Residential	2,514
Low Density Residential	4,380
High Density Residential	659
Neighborhood Commercial	63
Uptown Business District	510
Office/Mixed Use	98
Recreation	780
Light Industrial/Utility	810
Development Focus Area 1: Ponds District	165
Development Focus Area 2: Birchwood District	86
Development Focus Area 3: Black River District	187
Total	10,252

FUTURE LAND USE PLAN FOR FORT GRATIOT TOWNSHIP

A future land use map has been prepared and is a part of this document. Following is a description of the general locations of the plan's land use classifications:

AGRICULTURAL/RESIDENTIAL

On the future land use map, approximately 2,514 acres have been designated for agricultural and rural residential use, which is 25% of the total land area of the Township. All of this acreage is confined to the rural area in the northwest part of the Township. This area contains most of the prime agricultural land in the township, has many existing farms, and generally will not be serviced by public water and sewer within the timeframe of this plan. Thus, this part of the township is best suited to agricultural and rural residential uses. Rural residential refers to single-family homes on relatively large lots - lots that are larger than those typically found in suburban residential developments, but smaller than would be practical for larger-scale agricultural uses. Rural residential areas can also include small hobby farms. Rural residential development should be limited to or directed toward areas where the soils have only slight or moderate limitations for septic system use.

LOW-DENSITY RESIDENTIAL

The largest land use classification within the township is and will continue to be low-density residential, with approximately 4,380 acres, or 43% of the total land area in the township, planned for this use. Almost 30% of this acreage is currently vacant and undeveloped. It is expected that the development of this acreage will take three forms:

1. Infill development of vacant parcels within existing subdivisions and site condominium developments in the Township; and

2. The creation of new subdivisions or site condominium developments with the construction of new residential streets and the linking of those streets to the existing street system.

The future land use plan provides for these two situations as follows:

Infill Development

There are many vacant lots scattered throughout the existing subdivisions along the lakeshore and in the southern part of the township. These lots are already serviced by water, sewer, gas and electric utilities; thus, they should be given priority over the development of new subdivision plats. Development of these lots should be consistent with the character, size, and density of neighboring residential lots. However, there are also several small and odd-shaped lots (particularly along and near the lakeshore) that may be more difficult to build on. In these cases, some flexibility may be needed in order to utilize these lots. For example, many of these lots would be ideal locations for smaller-sized inexpensive start-up housing for younger families.

Creation of New Subdivisions/Site Condominium Developments

There are several large vacant tracts of land in the northern and western parts of the township adjacent to existing subdivisions, which would be suitable for future development as single-family residential subdivisions or site condominiums. These new subdivisions should be linked to adjacent subdivisions and the surrounding road network to provide proper access to new home sites. Also, because some of these sites contain wetland areas and other natural features, the Township should encourage the use of cluster development and planned unit development (PUD) concepts to preserve the natural features and provide for more buildable lots than would otherwise be possible with conventional platting.

HIGH-DENSITY RESIDENTIAL

In keeping with the objectives for providing opportunities for multiple and medium-density housing, approximately 659 acres are shown on the future land use map. High density residential uses include two-family and multiple-family residential uses, as well as manufactured housing parks. Two-family residential areas include and existing site near the southwest corner of Krafft Road and Konstantine Drive and planned two-family areas, including:

- ▶ The southeast corner of Parker Road and Keewahdin Road;
- ▶ The north side of Brace Road, west of Lakeshore Road; and
- ▶ The west side of Lakeshore Road between Brace Road and Metcalf Road.

The planned sites are intended to provide a transition area between higher density uses and adjacent single-family residential uses.

Multiple-family uses include existing apartment and condominium complexes, such as Fairway Terrace condominiums, Krafft Terrace condominiums, Lakeshore North condominiums, Windermere condominiums, Golf View Arms apartments, Golf Harbor apartments, Heritage Grove apartments, the Westmore apartments, Lake Huron Woods/Presbyterian Village senior apartments, Blue Water Lodge senior apartments, and the BARRSS Adult Foster Care Facility. Planned multiple-family sites are also included, such as:

- ▶ The north side of Krafft Road, east of the Heritage Grove apartments;
- ▶ The north side of Keewahdin Road adjacent to Blue Water Lodge;
- ▶ The south side of Carrigan Road, west of 24th Avenue; and
- ▶ The south side of Keewahdin Road between 24th Avenue and Parker Road.

The high-density residential category also includes manufactured housing communities. The future land use map shows two existing manufactured housing communities (with additional acreage adjacent to each for expansion). The first of these is located in Section 21, near the intersection of Keewahdin Road and 24th Avenue. The second is located in Section 19 at the corner of Krafft Road and Campbell Road.

UPTOWN BUSINESS DISTRICT

The 24th Avenue commercial strip forms the backbone of the 510-acre Uptown Business District generally running along M-25 from the Port Huron city limits north to Carrigan Road. This commercial district not only includes the existing 24th Avenue strip and vacant parcels within that strip, but acreage running west of 24th Avenue along Pine Grove Avenue, Krafft Road, and Keewahdin Road. Land on both sides of 24th Avenue, north of Cherry Hill, is also included along with the block bounded by Cherry Hill, Keewahdin, 24th Avenue and Meadowlawn. Land uses in the Uptown Business District include big box retail stores, restaurants, banks, car dealerships, and large commercial strip centers.

While the Birchwood Mall property is technically located within the Uptown Business District boundaries, its acreage is not included in the acreage totals and is instead designated as one of three development focus areas in the township.

NEIGHBORHOOD COMMERCIAL

Approximately 63 acres of neighborhood commercial uses are planned for the township. Neighborhood commercial uses are those less intensive commercial uses intended to meet the daily needs of adjacent residential areas. Common neighborhood commercial uses include party/convenience stores, pharmacies, laundromats, and markets. These uses would be located either within stand-alone structures or small strip centers.

Eight sites for neighborhood commercial have been scattered throughout the residential areas of the township and are located as follows:

1. The north side of Pine Grove Avenue, west of 24th Avenue;
2. The southwest corner of State Road and M-136;
3. The southwest corner of Parker Road and Keewahdin Road;
4. The southeast corner of Parker Road and Carrigan Road;
5. The northwest corner of Carrigan Road and 24th Avenue;
6. The west side of Lakeshore Road between Brace Road and Metcalf Road;
7. The intersection of Lakeshore Road and Metcalf Road; and
8. The northwest corner of Keewahdin Road and Lakeshore Road.

OFFICE/MIXED USE

A total of 98 acres is designated for Office/Mixed Use in the township. There are six areas designated for office/mixed use. The first is an expansion of the existing Birchwood Office Park westward along a planned extension of Commerce Drive. This area will also have access from Keewahdin Road. The second area is located on the south side of Keewahdin Road behind the Birchwood Mall property. The third office area is located on the north side of Keewahdin Road, east of Meadowlawn. The fourth area is located on the north side of Krafft Road, east of the Mercy Health Center. The fifth area is located on the north side of Carrigan Road, west of M-25. These planned office areas are located so as to help provide transitions between more intensive commercial districts and neighboring residential uses. The final area is located on the south side of Krafft Road, between Port Huron Northern High School and the Mount Hope Cemetery.

This land use designation is intended to provide for a mixture of residential uses along with compatible office uses, which could include professional offices, small scale medical offices, arts/photography studios and galleries, and other related uses.

RECREATION

The future land use map allocates 780 acres for recreational uses. This includes Township parks, non-motorized trails, Fort Gratiot County Park, and private recreational uses. Additional proposed parkland includes property west and northwest of the former Fort Gratiot Sanitary Landfill, the Township-owned land south of the community center, most of the eastern half of Section 17, and additional neighborhood parks.

LIGHT INDUSTRIAL/UTILITY

In order to provide some balance to the township's tax base, over 810 acres have been designated for light industrial and/or utility use. These areas include the Great Lakes Water Authority (GLWA) property in the northern part of the township and a large stretch of property in the western part of the township along M-136. The kinds of uses envisioned for this use category are small-scale manufacturing, solar power generation, processing, warehousing and research facilities - uses that do not result in nuisances or negative environmental impacts. It is further envisioned that these uses will be located entirely within one or two planned industrial parks. Given that the Township is not served by rail or direct interstate highway access, the development of heavy industrial uses should be discouraged. There are no designated heavy industrial areas on the future land use map.

DEVELOPMENT FOCUS AREAS

Three areas within the township are designated as Development Focus Areas on the future land use map in order to allow the Township to achieve its land use goals while affording the opportunity for flexible and innovative development options that contribute to the township's quality of life, placemaking, and economic development efforts.

Development Focus Area 1: The Ponds District

This development focus area, comprised of 165 acres, is located north of Keewahdin Road, west of M-25, behind the Wal-Mart shopping center and adjacent to the Kettlewell and Fort Gratiot ponds.

Existing Development Pattern:

The area that makes up the Ponds District focus area is generally vacant property situated between Township-owned recreational land and big-box retail stores along M-25 that are part of the Uptown Business District. The majority of this property is wetlands and currently owned by the State of Michigan.

Land Use Intent:

This focus area would be ideal for family-friendly, trail/recreation-based retail and services that would take advantage of the Township's existing parkland and the Fort Gratiot bike path system that meanders through the property. This would connect the Uptown Business District to the recreation amenities along Parker Road. Example uses could be small niche retail shops, food trucks, low-impact sporting/game activities (i.e. horseshoe pits, corn hole games, etc.), small paddlecraft rentals - a gathering space for the community. This area could serve as a small town plaza that could host outdoor movies, musical performances, and other community events. Due to the wetland areas on the property, uses will need to be low-impact in nature.

The southern portion of this focus area is the former Fort Gratiot Sanitary Landfill, which is now capped and could provide a unique opportunity for year-round activities - such as a concert pavilion that uses the hill as a "lawn"

seating area, a sledding hill in the winter time. The closed landfill site can only be used for recreational uses.

Planning Considerations:

- ▶ Allow flexibility in site design to best accommodate uses that compliment the existing parks, the pond, and the bike path.
- ▶ Use walks and landscaping to improve public connectivity and enhance the active use spaces.
- ▶ Encourage low-impact, eco-friendly site design practices.
- ▶ Ensure that development of this area does not negatively impact the natural resources in the surrounding area.
- ▶ Connect this focus area with the Uptown Business District and the Birchwood District.
- ▶ Understand the development limitations of these properties, which will eliminate potential uses, such as residential.

Development Focus Area 2: The Birchwood District

The Birchwood District development focus area, which totals 86 acres, essentially covers the entire Birchwood Mall property, south of Keewahdin Road and east of M-25. This area is also a key part of the larger Uptown Business District.

Existing Development Pattern:

The Birchwood Mall is an enclosed shopping mall that opened in April 1991 and is currently managed by Brookfield Properties Retail. The mall is one of the largest regional shopping centers in the Blue Water region, drawing visitors from surrounding counties, as well as Canada. The land area of the mall site totals 79.5 acres, while the building itself is approximately 778,823 square feet in size. Surface lots consisting of nearly 4,300 parking spaces surround the mall.

The mall has capacity for five retail anchors. As of August 2018, three of the five anchor spaces are vacant, including the former Carson's, Macy's and Sears. JC Penney and Target are the remaining anchors at the mall. In addition to these traditional department store retailers and a mix of smaller niche retailers, unique amenities include an antique carousel, an AMC movie theater, a Planet Fitness gym, a 450-seat food court, and a children's soft play area. In recent years, the mall has experienced high vacancy rates. In 2018, the mall had a vacancy rate of 26% with a vacant gross leasable area of 238,605 square feet.

The mall is zoned for general business, which permits uses such as retail and entertainment options, as well as some service industries.

The properties surrounding the mall are primarily zoned for general business and neighborhood office to the north and south, and residential to the east. The mall is generally surrounded by commercial retail, chain restaurants, medical facilities, and single-family housing - all part of the larger Uptown Business District. This development focus area is most easily accessed by automobiles, which may enter the property through various ingresses. The mall site is composed of seven parcels with a combined taxable value of \$15.7 million.

Land Use Intent:

In April 2018, a team of student researchers from Michigan State University's Urban and Regional Planning Program conducted a semester-long visioning plan for the future of Birchwood Mall. The purpose of their work was to determine the most effective repurposing of the mall property. Through data collection, analysis, and stakeholder interviewing, the team developed a series of short-term, mid-term, and long-term recommendations over three phases for repurposing the mall for the future. The full vision plan can be downloaded from the Fort Gratiot

FIGURE 4-1: GOALS AND OBJECTIVES, MSU VISION PLAN FOR BIRCHWOOD MALL

Phase	Objective	Action Item
Phase I: Modernize Mall Appearance and Retail Mix	1.1: Attract additional retail tenants and entertainment providers	1.1.1.: Attract a new type of retail mix
		1.1.2.: Promote and facilitate indoor recreation and seasonal activities
		1.1.3: Rebranding Mall Identity
	1.2: Modernize mall appearance	1.2.1.: Interior improvements
		1.2.2.: Exterior facade improvements
Phase II: Addition of Mixed-use Retail, Commercial, and Office Space	2.1: Addition of mix of affordable, unique, and high-end restaurants and drinking places	2.1.1.: Addition of restaurants and drinking establishments
		2.1.2.: Implement rooftop eating establishments and drinking places
	2.2: Addition of office space	2.2.1.: Reconfiguration of space for new uses
		2.2.2.: Encourage collaboration between local economic development groups and mall ownership
	2.3: Develop green and open spaces at various locations on Birchwood Mall property	2.3.1.: Replace automobile parking spaces with green and open spaces
		2.3.2.: Plant canopy trees throughout parking area
	2.4: Addition of recreation space	2.4.1: Attract investment in recreation centers and recreation-based retail
		2.4.2: Reconfigure vacant anchors to accommodate large-scale indoor recreation
Phase III: Development of Lifestyle Center	3.1: Addition of second story	3.1.1.: Addition of apartment style residential units on second story of building
	3.2: Improve road and streetscape infrastructure surrounding the Birchwood Mall Property	3.2.1.: Addition of street lighting
		3.2.2.: Use attractive landscape design to create a boulevard-style streetscape
		3.2.3.: Construct golf cart path connecting mall to nearby golf course
	3.3: Encourage multi-modal access to Birchwood Mall	3.3.1.: Propose improvements to public transit system
		3.3.2.: Consider implementing "shuttle service" for lower-mobility population

Township website. See figure 4-1 for a summary of planning objectives and recommended actions.

Planning Considerations:

- ▶ Work with community stakeholders and mall ownership to carry out the recommendations of the MSU Vision Plan for Birchwood Mall.
- ▶ Modernize the mall appearance and retail mix.
- ▶ Ensure the zoning ordinance is updated to provide innovative regulatory mechanisms to repurpose the mall property - strengthen mixed use development regulations, planned unit development options, explore form based code options, and promote sustainable design treatments.
- ▶ Look for opportunities to add in a mix of affordable housing, unique and niche retail shops, entertainment

venues, restaurants and bars, office space, and open spaces.

- ▶ Explore opportunities to add a second story to a repurposed Birchwood Mall.
- ▶ Improve the road and streetscape infrastructure as needed in the areas surrounding the mall site.
- ▶ Encourage multi-modal access to the site.
- ▶ Develop branding for the “Birchwood District” as part of the overall redevelopment strategy.
- ▶ Create a walkable, vibrant mixed-use environment that strengthens the Birchwood District as a regional driver of economic prosperity.
- ▶ Pursue grant funding and economic development incentive programs to implement the repurposing of this focus area.
- ▶ Enhance the connectivity between the Birchwood District and Lake Huron and the recreational amenities in the planned Ponds District focus area. Extend bicycle and walking paths to connect these hubs of activity.

Development Focus Area 3: The Black River District

The Black River District development focus area is comprised of 187 acres and is located along the southern border of the Township along the Black River.

Existing Development Pattern:

Uses in this focus area are predominantly recreational in nature, with three private golf courses stretching along the Black River and into Port Huron Township. There are also some single-family residential homes abutting the golf courses between North River Road and the Black River. North River Road Park is located along North River Road, just west of M-25.

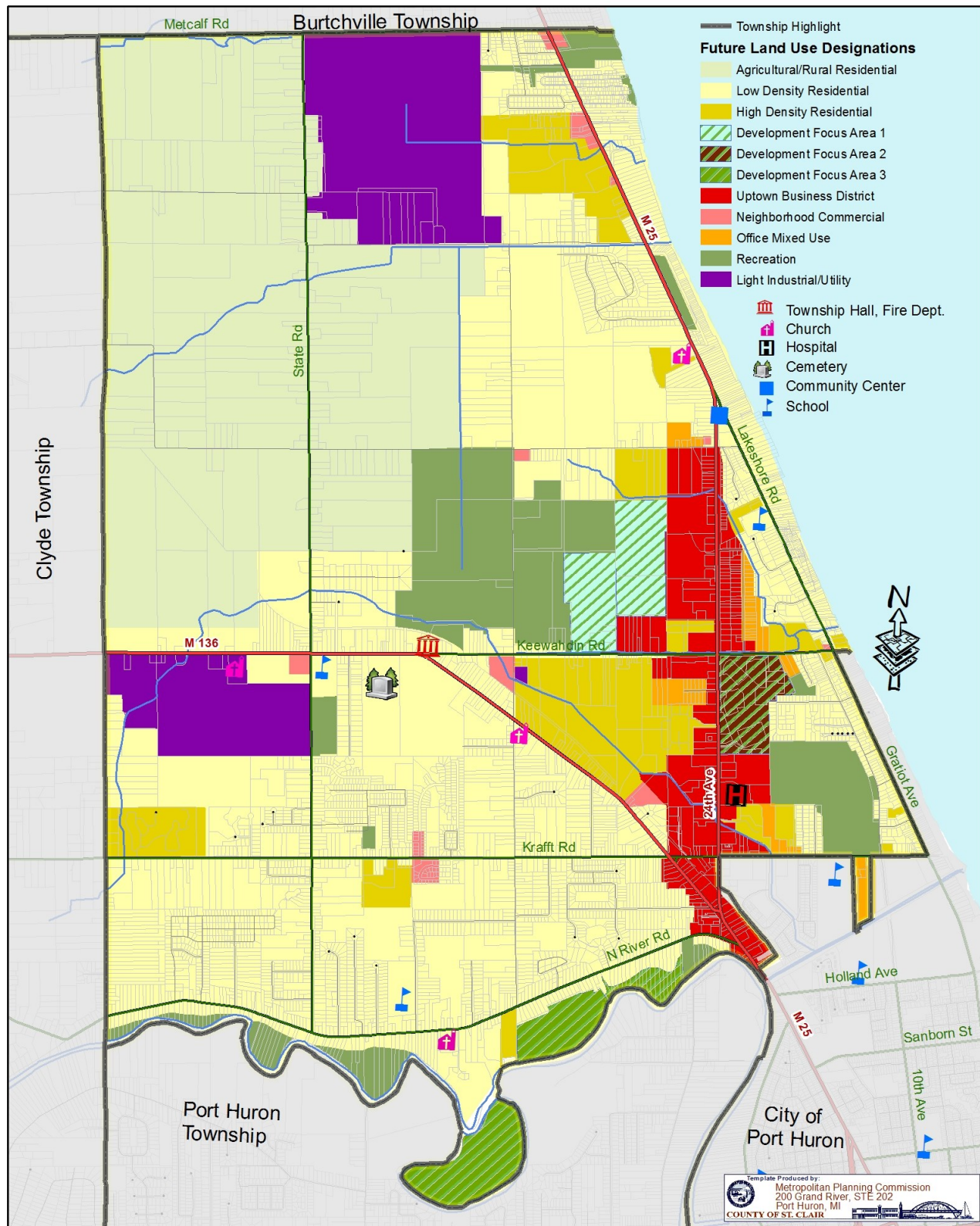
Land Use Intent:

The intent of this development focus area is for the Township to have some flexibility in the future when the golf course properties may transition to other uses. Given the land’s proximity to the Black River, much of the land in this development focus area will be limited by the floodplain. Allowing this focus area to be eligible for a planned unit development at some point in the future will open up opportunities for residential cluster development that preserves sensitive environmental areas and provides opportunities for open space to be mixed into the overall design. If floodplain issues prove too difficult for residential uses, the area will be well suited for additional recreational uses with direct access to the Black River.

Planning Considerations:

- ▶ Only consider future residential uses if a cluster development option can be implemented in a manner that mitigates the 100-year floodplain.
- ▶ As appropriate, utilize the planned unit development (PUD) option to maximize flexibility.
- ▶ Explore the development of future recreational amenities in this area, including additional access points to the Black River and opportunities for kayaking, canoeing, and fishing.
- ▶ Work with neighboring communities to have consistent land use plans on both sides of the river.
- ▶ Limit impervious surfaces to the greatest extent possible.
- ▶ Explore opportunities to implement green infrastructure in any future redevelopment of the area, including rain gardens, bioswales, green roofs, planter boxes, and tree canopies.

Fort Gratiot Future Land Use Plan



5

ZONING PLAN



IN THIS CHAPTER:

- ▶ THE DEFINITION OF A ZONING PLAN
- ▶ THE RELATIONSHIP BETWEEN THE MASTER PLAN AND ZONING
- ▶ AN OVERVIEW OF ZONING DISTRICTS AND DIMENSIONAL STANDARDS
- ▶ THE RELATIONSHIP BETWEEN FUTURE LAND USE AND ZONING
- ▶ ENSURING REZONINGS ARE CONSISTENT WITH THE MASTER PLAN
- ▶ RECOMMENDED CHANGES TO THE FORT GRATIOT TOWNSHIP ZONING ORDINANCE

INTRODUCTION

This chapter begins by defining a zoning plan. That definition is followed by a brief explanation of the relationship between the Fort Gratiot Township Master Plan and the Township zoning ordinance. The intent and key dimensional standards of each zoning district are briefly described. This chapter concludes with a list of proposed changes to the zoning ordinance which the Township should implement in order for the ordinance to more closely conform to this plan.

ZONING PLAN DEFINED

A “zoning plan” is another term for a “zone plan” which is used in the Michigan Zoning Enabling Act (PA 110 of 2006) and the Michigan Planning Enabling Act (PA 33 of 2008). Section 33(2)(d) of the Michigan Planning Enabling Act requires that a master plan include:

“...a zoning plan for various zoning districts controlling the height, area, bulk, location, and use of buildings and premises. The zoning plan shall include an explanation of how the land use categories on the future land use map relate to the districts on the zoning map.”

The zoning plan must be based on an inventory of conditions pertinent to zoning in the township and the purposes for which zoning may be adopted, as described in Section 201(1) of the MZEA.

A zoning plan describes:

- ▶ The purpose, general location, and main uses allowed for each existing and proposed zoning district;
- ▶ The difference between the land use categories of the Future Land Use Map and those found on the zoning map;
- ▶ The recommended standards for the schedule of regulations concerning height, bulk, setback, yard, lot size and related features;
- ▶ The existing zoning map, along with proposed changes, and clearly details the circumstances under which those changes should be made; and
- ▶ Standards or criteria to be used to consider rezonings consistent with the Master Plan.

The Michigan Zoning Enabling Act contains the following provisions related to the regulation of land development and the establishment of zoning districts:

- ▶ **Section 201(1):** “A local unit of government may provide by zoning ordinance for the regulation of land development and the establishment of 1 or more districts within its zoning jurisdiction which regulate the use of land and structures.”
- ▶ **Section 201(4):** “A local unit of government may adopt land development regulations under the zoning ordinance designating or limiting the location, height, bulk, number of stories, uses, and size of dwellings, buildings, and structures that may be erected or altered, including tents and recreational vehicles.”
- ▶ **Section 202(1):** “The legislative body of a local government may provide by ordinance for the manner in which the regulations and boundaries of districts or zones shall be determined and enforced or amended, supplemented, or changed.”

The Michigan Zoning Enabling Act also contains the following provisions relative to zoning regulations being based on a master plan and the adoption of a zoning plan:

- ▶ **Section 203(1):** “The zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare...”
- ▶ **Section 305(a):** “The planning commission shall adopt and file with the legislative body “a zoning plan for the areas subject to zoning of the local unit of government.”

RELATIONSHIP TO THE FORT GRATIOT TOWNSHIP MASTER PLAN

This master plan sets forth the vision, goals, and planning objectives for growth and development in Fort Gratiot Township for approximately the next twenty to thirty years. It includes a specific strategy for managing growth and change in land uses and services over this planning period, and will be periodically reviewed and updated at least once every five years. This chapter presenting the zoning plan, along with the rest of the relevant parts of the master plan, is intended to guide the administration of and direct future changes to the Township zoning ordinance. Existing permitted uses of land, including density, setbacks and other related standards are established in the zoning ordinance.

ZONING DISTRICTS AND DIMENSIONAL STANDARDS

Following are the general purposes and characteristics of existing zoning within Fort Gratiot. The specific purposes and permitted uses within each zoning district are listed in the district provisions of the Township zoning Ordinance. The section references indicate where detailed ordinance language for each district is located within the actual zoning ordinance. Article III of the Township zoning ordinance establishes the zoning districts for Fort Gratiot Township. Sections 38-141 through 38-440 provide the use regulations for each zoning district within the township.

AGRICULTURAL DISTRICT

Section 38-141 AG *Agricultural District*

The “AG Agricultural District” are those open areas of the township where farming, dairying, forestry operations, and other rural activities are found. Vacant land, fallow land and wooded areas also would be included where such areas are interspersed among farms. Gradually, and based upon a logical comprehensive master plan, AG agricultural districts may be converted to other land uses. The AG agricultural district protects land needed for agricultural pursuits from encroachment by untimely and unplanned residential, commercial and industrial development.

RESIDENTIAL DISTRICTS

Section 38-171	R-1A/R-1B	<i>Single-Family Residential Districts</i>
Section 38-201	RM	<i>Multiple-Family Residential District</i>
Section 38-231	MHR	<i>Mobile Home Residential District</i>

The R-1A and R-1B One-Family Residential Districts are established as districts in which the principal use of land is for single-family dwellings. The specific intent of the R-1A/R-1B districts are to:

1. Encourage the construction of, and the continued use of the land for single-family dwellings.
2. Prohibit business, commercial, or industrial use of land, and to prohibit any other use which would subsequently interfere with development or continuation of single-family dwellings in the district.
3. Encourage the discontinuance of existing uses that would not be permitted as new uses under the provisions of the ordinance; and

4. Discourage any land use which, because of its character or size, would create requirements and costs for public services, such as fire and police protection, water supply, and sewerage, substantially in excess of such requirements and costs if the district were developed solely for single-family dwellings.

The R-M Multiple-Family Residential District is designed to permit a more intensive residential use of land with various types of multiple dwelling and related uses. These areas would be located near major streets for good accessibility. Various types and sizes of residential accommodations, for ownership or rental, would thereby be provided to meet the needs of the different age and family groups in the community.

The "MHR" Mobile Home Residential District is designed to provide for the development of mobile home sites and mobile home parks at appropriate locations in relation to the existing and potential development of their surroundings and, in relation to other uses and community facilities, to afford a proper setting for these uses and a proper relation to other land uses and the comprehensive development of the township.

COMMERCIAL/OFFICE DISTRICTS

Section 38-261	O-1	Office District
Section 38-291	O-2	Office Mid-Rise District
Section 38-321	C-1	Neighborhood Business District
Section 38-351	C-2	General Business District

The "O-1 Office District" is designated to accommodate office uses, office sales uses, and certain basic personal services. These use districts when not a part of a shopping center or other business district are intended to serve the function of land use transition between business districts and adjacent residential districts. Office districts will normally be located along major thoroughfares.

The "O-2 Office Mid-Rise District" is intended to accommodate office buildings and restricted related retail and service establishments on large land parcels in proximity to areas of major commercial or civic center development. Such O-2 districts are intended to provide transition between these areas and major thoroughfares, and areas of less intensive development. Because of the large land area involved, greater flexibility as to building height and related uses is warranted, as compared to the O-1 office district.

The "C-1 Neighborhood Business District" is intended to be that district permitting retail business and services uses which are needed to serve the nearby residential areas. In order to promote such business development so far as is possible and appropriate in each area, uses are prohibited which would create hazards, offensive and loud noises, vibration, smoke, glare, heavy truck traffic, or late hours of operation. The intent of the C-1 district is also to encourage the concentration of local business by locating proposed areas in the master plan, as may be adopted to the mutual advantage of both the consumer and merchant. This will promote the best use of land at certain strategic locations and avoid the encouragement of marginal strip, business development along major streets.

The "C-2 General Business District" is intended to be that district permitting a wider range of business and entertainment activities than those permitted in the neighborhood business district. The permitted uses would serve not only nearby residential areas, but also people further away for types of businesses and services usually found in major shopping centers and central business districts at the juncture of principal streets. These uses would generate larger volumes of vehicular and pedestrian traffic and are generally characterized by an integrated or planned cluster of establishments served by a common parking area. Alternately, such districts may also be located along federal, state, or other major thoroughfares where the sites are easily accessible to large volumes of traffic. These districts are intended to be more isolated and buffered than C-1 districts from adjacent single-family residential

areas where noise and traffic could be disturbing or a hazard. Such C-2 districts in the township would reflect major existing shopping concentrations, other commercial uses along major highways, and desired future commercial centers as proposed on the comprehensive development plan which are needed to serve adequately the future population of the township.

INDUSTRIAL DISTRICTS

Section 38-381	M-1	Light Industrial District
Section 38-411	M-2	Heavy Industrial District

The "M-1 Light Industrial District" is designated as a district in which the principal uses allowed are wholesale activities, warehousing, light manufacturing, fabrication or processing. For the M-1 light industrial district, the specific intent is to:

1. Control nuisance effects of warehousing, wholesale activities, and industry such as smoke, noise, odor, dust, dirt, glare, vibrations and other adverse effects so that such uses will be compatible with other land uses such as commercial or residential;
2. Encourage light industrial uses to locate on major highways so that traffic generated by these uses will not utilize local residential streets; and
3. Prohibit open storage of materials.

The "M-2 Heavy Industrial District" is designated as a district in which the principal uses allowed would be more intensive in nature than those uses allowed in the M-1 light industrial district. For the M-2 heavy industrial district, the specific intent is to provide areas:

1. For industrial uses, which, because of the nature of their operation cannot control nuisance effects to the extent that they would be compatible with residential or commercial land uses; and
2. In the township where industrial uses requiring outdoor storage could locate.

RELATIONSHIP BETWEEN ZONING AND THE FUTURE LAND USE PLAN

The future land use map is not the same as the zoning map, neither in the legal sense nor in its effect. A land use map is a graphic representation of how land is physically being used. Land use maps are highly visible within most master plans, usually highlighting both existing land use and plans for future land use. The future land use map is general in nature and is an official description of where and to what level future zoning should be permitted.

A zoning map is a graphic depiction of the boundaries for which zoning standards and regulations have been adopted by a governmental entity, in this case Fort Gratiot Township.

The future land use map, along with its associated descriptions for future land use classifications make up the future land use plan and can be found in Chapter 4. The future land use map should serve as a guide for making decisions on the rezoning of land. However, the planning commission and township board should consider the map to be one of many tools available to help them in making land use recommendations and decisions. The information contained on the map should be complemented by impact studies and other site-specific information as considered necessary by Township officials.

TABLE 5-1: FUTURE LAND USE CLASSIFICATIONS AND ASSOCIATED ZONING DISTRICTS

Future Land Use Classification (Chapter 6)	Zoning District(s)
Agricultural/Rural Residential	AG Agricultural District
Low Density Residential	R-1A/R-1B One Family Residential Districts
High Density Residential	RM Multiple Family District, MHP Mobile Home Park District
Neighborhood Commercial	O-1 Office District, O-2 Office Mid-Rise District, C-1 Neighborhood Business District, C-2 General Business District
Uptown Business District	C-2 General Business District
Office/Mixed Use	O-1 Office District, O-2 Office Mid-Rise District, C-1 Neighborhood Business District, C-2 General Business District
Recreation	Within Township zoning districts as permitted or special land uses
Light Industrial/Utility	M-1 Light Industrial District, M-2 Heavy Industrial District
Development Focus Area 1: Ponds District	Within Township zoning districts as permitted or special land use; Permitted as a Planned Unit Development
Development Focus Area 2: Birchwood District	Within Township zoning districts as permitted or special land use; Permitted as a Planned Unit Development
Development Focus Area 3: Black River District	Within Township zoning districts as permitted or special land use; Permitted as a Planned Unit Development

ENSURING REZONINGS ARE CONSISTENT WITH THE MASTER PLAN

Based on the *Michigan Zoning Guidebook, 2nd Edition* (Prepared by Planning & Zoning Center at MSU, May 2008), in order for the planning commission and township board to objectively determine whether a proposed zoning map amendment is appropriate, the following questions are often considered:

- ▶ Are there substantial reasons why the property cannot be reasonably used as currently zoned?
- ▶ Is the proposed use to be established in the new zoning district more appropriately handled as a special land use in the existing district or another district?
- ▶ If a zoning change is proposed, is it consistent with and supported by this master plan?
- ▶ Is the proposed location an appropriate location for ALL of the uses which would be permitted under the requested district or zone?
- ▶ Would a change of present district boundaries be compatible with existing land uses in the area? Will it adversely affect property values?
- ▶ Are adequate sites available elsewhere that are already properly zoned to accommodate the proposed use?
- ▶ Would the rezoning constitute a spot zoning, granting a special privilege to one landowner not available to others?
- ▶ Was there a mistake in the original classification?
- ▶ Has there been a change of conditions in the area supporting the proposed rezoning?
- ▶ Would the change severely impact traffic, public facilities, and the natural characteristics of the areas, or significantly change population density? Is the change consistent with the purposes for which zoning is adopted?

- ▶ Is the proposed change out of scale with the needs of the community?
- ▶ If the change is approved, what will be the probable effect on stimulation of similar zoning requests in the vicinity?
- ▶ Is the proposed change precedent setting?
- ▶ Is the proposed boundary appropriate?
- ▶ Upon answering the questions above, a sound recommendation – one supported by data and the goals and objectives of this plan – can be made that is in the best interest of the township as a whole.

In special cases, the planning commission may need additional studies and/or surveys to be made in order to have all of the necessary information to answer the questions above and make a solid decision. In such cases, the planning commission should take the time to investigate, using outside technical assistance if necessary. For this reason, the Township's zoning ordinance should clearly authorize the planning commission to request impact studies, with the costs for such studies being born by the developer/applicant.

RECOMMENDED ZONING ORDINANCE AMENDMENTS

Following is a list of changes that should be made to the Fort Gratiot Township Zoning Ordinance to be consistent with the vision, goals and planning objectives in this master plan:

- ▶ Explore developing a form-based code for specific areas of the township, such as the Birchwood District development focus area.
- ▶ Ensure rezoning decisions are consistent with the future land use plan and goals of the master plan.
- ▶ Strengthen variance language within the ordinance to more clearly detail standards for considering practical difficulty in the case of a dimensional variance (also referred to as a non-use variance).
- ▶ Strengthen provisions allowing for mixed use development in appropriate locations.
- ▶ Add authority to require impact studies for very large projects.
- ▶ Add authority to permit review of proposed projects by outside engineers, planners or other experts as desired by the township, with costs borne by the applicant.
- ▶ Add provisions to require more street trees to be planted as a part of new developments.
- ▶ Develop a riparian protection overlay district and appropriate regulations to preserve the Black River.
- ▶ Add standards to better protect water quality including:
 - ◆ Limiting imperviousness.
 - ◆ Establishing vegetative buffers along rivers, streams and drains.
 - ◆ Limiting the use of fertilizer adjacent to drains, streams, the Black River, and Lake Huron.
 - ◆ Promote agricultural best management practices and generally accepted agricultural management practices.
 - ◆ Keeping animal waste out of surface waters.
 - ◆ Protecting groundwater and wells from contamination.
 - ◆ Protecting wetlands and woodlands.
 - ◆ Keeping new structures out of floodplains.
- ▶ Add regulatory language for commercial and residential solar energy systems.
- ▶ Conditional rezoning is a practice of rezoning that is tied to a contract that is offered by an applicant and mutually agreed upon by the municipality. The Township zoning ordinance should be amended to include a review and approval process for these types of requests.
- ▶ Evaluate the intent of each zoning district in relation to the vision of the comparable land use area.
- ▶ Prepare criteria for reuse of school and church facilities.
- ▶ Develop zoning provisions to encourage or, in some cases, require green infrastructure elements such as bioswales, rain gardens, permeable parking, green roofs, and other treatments to limit impervious surfaces and preserve sensitive natural areas within the township.

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PLANNING GOALS AND IMPLEMENTATION STRATEGIES



IN THIS CHAPTER:

- ▶ PURPOSE OF THE MASTER PLAN
- ▶ DETERMINING POLICY
- ▶ PLANNING GOALS AND STRATEGIC ACTIONS
- ▶ IMPLEMENTING THE MASTER PLAN
- ▶ ADDITIONAL IMPLEMENTATION STRATEGIES
- ▶ CAPITAL IMPROVEMENTS PROGRAMMING (CIP)
- ▶ PROPOSED CAPITAL IMPROVEMENT PROJECTS

INTRODUCTION

Communities are continually facing problems of growth and development. In the effort to provide essential municipal services, adequate and efficient areas for business and industry, pleasant living conditions and recreational facilities, communities have looked to planning as a process to prepare for these developmental pressures. The planning process, in turn, provides for that development in a well thought out manner that will most equitably benefit the entire community.

The planning goals and strategic actions formulated by the planning commission are the cornerstone of the planning process. They are intended to provide the basic framework for public and private decision making. The master plan's arrangement of future land uses is based on the community's goals for the future. As such, the goals will effectively direct both public and private decisions regarding land use and development.

PURPOSES OF THE MASTER PLAN

The master plan is the official document that serves as the long range, comprehensive policy guide to the day-to-day decisions about the future development of the township. The plan is written to be flexible in order to meet changing future conditions and is designed for the community as a whole, not specific parcels. Through its text and graphic aids, the master plan explains the Township's philosophy and desires concerning future development.

The Michigan Planning Enabling Act (PA 33 of 2008) and the Michigan Zoning Enabling Act (PA 110 of 2006) require that the provisions of a zoning ordinance be based upon a plan. A zoning ordinance is more likely to be defensible when based upon a well-conceived plan. Too often, local officials and citizens find themselves dealing with development proposals with no firm direction and they must either succumb to development pressure or arbitrary denials. The master plan will establish policies that promote continuity when issues regarding growth arise. To be implemented effectively, the master plan must encourage the joint participation of both public officials and citizens. Only through this participation will the desirable use of land occur within the township.

Specifically, the purposes of the master plan are:

- ▶ To improve the physical environment of the township as a setting for human activities, minimize conflicts caused by growth or change, and promote the general health, safety, and welfare by making the township more functional, beautiful, decent, healthy, interesting, and efficient.
- ▶ To promote the public interest, the interest in the community at large, rather than the special interests of specific individuals or groups within the community.
- ▶ To facilitate the democratic determination and implementation of community policies and physical development. The plan is primarily a policy instrument. The plan constitutes a declaration of long-range goals and strategic actions and provides the basis for a program to accomplish the goals. By providing opportunities for citizen participation, the plan facilitates the democratic process.
- ▶ To effect political and technical coordination in community and economic development.
- ▶ To inject long-range considerations into the determination of short-range actions.
- ▶ To bring professional and technical knowledge to bear on the making of decisions concerning the physical development of the community.

DETERMINING POLICY

The master plan is not just a series of maps. Rather, it is first a series of policy statements of objectives. Policy statements, of course, do have limitations. They cannot cover every situation. Certain areas are so complex that it will be impossible to know what sort of policy decision can be made until all of the facts are assembled. Also, there must be agreement and consensus in the first place before a policy statement can be adopted. Obviously, this concurrence will not always exist. None of this negates, however, the desirability of formulating and adopting policy statements in as many areas of planning concern as possible.



ECONOMIC PROSPERITY GOALS AND STRATEGIES

Goal 1: Strengthen Fort Gratiot Township's competitiveness as a place to live, work and invest by focusing quality of life and placemaking efforts on:

- ▶ Provide people a choice of safe, livable neighborhoods.
- ▶ Encourage developments that promote healthy lifestyles and provide access to fresh, local food.
- ▶ Consider bicycle, walking and transit connectivity in all development decisions.
- ▶ Support education efforts for local public and charter schools, as well as local college programs
- ▶ Collaborate with community partners to offer festivals, attractions and entertainment for residents and visitors.

Goal 2: Continue to promote the M-25/24th Avenue commercial corridor as one of the region's quality of life assets and establish the community as the premier shopping experience.

- ▶ Create and promote the "Uptown" Fort Gratiot marketing campaign to differentiate the township's commercial diversity.
- ▶ Encourage mixed-use developments to integrate into the existing commercial corridor to expand the range of residential, commercial, employment, and entertainment options.
- ▶ Work with community stakeholders and mall ownership to rejuvenate the Birchwood Mall as a regional mixed-use town center that attracts residents, tourists, and businesses.
- ▶ Improve mobility and walkability along the M-25/24th Avenue corridor.
- ▶ Collaborate with the City of Port Huron and Burtchville Township to develop an M-25/24th Avenue corridor plan that stretches from Downtown Port Huron, through Fort Gratiot Township, to Lakeport.
- ▶ Continue marketing Fort Gratiot Township to the Canadian market.

Goal 3: Market Fort Gratiot Township to entrepreneurs and new economy businesses.

- ▶ Promote and support entrepreneurship in the township. Create regulations and implement policies that are entrepreneur-friendly and work to connect entrepreneurs looking to start or expand a business to the organizations or resources that are required to be successful.
- ▶ Continue to work with the Economic Development Alliance of St. Clair County to market Fort Gratiot Township as a great place to start or grow a business.
- ▶ Collaborate with community partners to improve and expand infrastructure to support enhanced access to broadband and other tools needed to thrive in the new economy.
- ▶ Repurpose underutilized commercial and office properties into spaces that can be used by entrepreneurs or growing businesses.
- ▶ Work with community partners and mall ownership to creatively repurpose Birchwood Mall into an innovative mixed-use development.
- ▶ Ensure that Fort Gratiot Township has a wide variety of amenities including recreation, shopping, cultural resources, entertainment options, and "third places," all of which will help in attracting and retaining talented workers.

Goal 4: Add business and industrial diversity in Fort Gratiot Township.

- ▶ Work with the Economic Development Alliance of St. Clair County to attract new economy jobs in research and development, clean manufacturing, health care, and other targeted industries.
- ▶ Encourage industrial development in appropriate locations in the township to support employment growth.
- ▶ Encourage the use and/or redevelopment of existing underutilized, vacant and dilapidated buildings



whenever possible.

- ▶ Work with partners to support manufacturing and services capable of serving the needs of the residents and businesses in the area.
- ▶ Work with partners to market available cost-effective, adequately-sized industrial sites that are compatible with the surrounding area.
- ▶ Minimize the negative impacts of industrial development on adjacent land uses.
- ▶ Provide adequate buffering of industrial uses from adjacent residential uses and from less intensive land uses through the use of appropriate setback standards, landscaping, and by locating industrial uses adjacent to other intensive land uses.

Goal 5: Promote and encourage tourism and tourism-based activities.

- ▶ Promote cultural, historical, recreational, and environmental attractions to a broad market.
- ▶ Work to establish Fort Gratiot Township as a year-round tourism destination.
- ▶ Promote water-based tourism opportunities.
- ▶ Explore opportunities to recruit a hotel with an indoor water park or other amenities to the Township.

Goal 6: Continue to work toward regional collaboration and economic development.

- ▶ Actively participate in ongoing collaborative partnerships such as Blue Meets Green, the Economic Development Alliance of St. Clair County, and neighboring communities.
- ▶ Explore mutually beneficial service sharing options.
- ▶ Leverage the interest and investments of community partners to benefit the whole region.
- ▶ Maintain the current membership of the Southeast Michigan Council of Governments (SEMCOG) to leverage the resources through regional partnerships.
- ▶ Participate in intergovernmental planning efforts to assure the representation of Fort Gratiot Township in regional decision making.

LAND USE AND ENVIRONMENT GOALS AND STRATEGIES

Goal 7: Protect and Develop the community character of the township.

- ▶ Preserve and enhance the township's predominantly low-density single family residential development pattern.
- ▶ Discourage strip frontage residential development along major roads that results in the isolation of interior acreage.
- ▶ Preserve transitional residential districts from untimely intrusions and blighting influences.
- ▶ Enhance and strengthen important gateway entry points into the township with landscaping, architectural features, and signage that helps establish an identity and sense of place.
- ▶ Require developers to preserve natural features, including trees, as an integral part of development.
- ▶ Create and Develop a community "gateway" feature, that distinguishes when you've entered in to Fort Gratiot Township

Goal 8: Protect and Develop Fort Gratiot Township's abundant natural resources.

- ▶ Recognize and incorporate the township's existing natural features into the development of future recreation sites.
- ▶ Encourage the development of a linear, passive recreation facility along the Black River.
- ▶ Improve access to Lake Huron through an improved Black River Canal.
- ▶ Work with community partners to protect coastal resources within the township along Lake Huron and the Black River Canal.

HOUSING/NEIGHBORHOOD GOALS AND STRATEGIES

Goal 9: Create safe, affordable neighborhoods where people want to live and interact with their community.

- ▶ Allow for a variety of dwelling unit types and sizes for ownership and rental by all age groups and income levels, including site-built and factory-built, single family, two-family, and multiple family development.
- ▶ Encourage affordable and workforce housing in mixed use developments and explore the conversion of underutilized properties to affordable housing, such as micro-units, apartments, or senior housing.
- ▶ Promote a residential environment designed to fulfill basic needs with special attention focused on maintaining or restoring viability of developed residential areas.
- ▶ Require new residential development to be visually attractive and environmentally acceptable, preserving the natural features of each site, such as woods, topography, natural drainage and retention areas.
- ▶ Discourage incompatible non-residential uses from locating in residential neighborhoods.

Goal 10: Pursue and encourage new housing development opportunities.

- ▶ Identify potential sites for quality, affordable housing and senior housing with access to services.
- ▶ Pursue strategic partnerships to develop senior housing at different income levels.
- ▶ Integrate mixed-use residential options into commercial developments.
- ▶ Explore residential development options as part of a larger repurposing of Birchwood Mall.
- ▶ Provide multiple-family housing opportunities to meet anticipated future housing demand.



PUBLIC SERVICES/FACILITIES GOALS AND STRATEGIES

Goal 11: Provide a range of public facilities and services consistent with the character of the community, which meets present and future needs and supports the public health, safety and welfare of residents.

- ▶ Police, fire and emergency services are consistent with public need and the ability to finance improvements in the most cost-efficient manner.
- ▶ Police, fire and emergency services respond as quickly and effectively as possible.
- ▶ Provide efficient emergency services on a cross-jurisdictional basis.
- ▶ Solid waste, recyclable and hazardous materials are disposed of safely, effectively and efficiently.
- ▶ Continue to develop a capital improvement program that sets forth a long-term plan for improving services in the community.
- ▶ Actively participate in countywide and regional planning efforts concerning economic development, infrastructure planning, solid waste, hazard mitigation, public safety, and water quality.
- ▶ Embrace an environment of information sharing at the township, county and statewide level.
- ▶ Encourage new development only where there is sufficient infrastructure available.
- ▶ Plan development in a manner that best utilizes the Township's utility system.

Goal 12: Continually review the Township master plan and update the plan at least every five years.

- ▶ Stay abreast of the latest development trends occurring in Fort Gratiot Township, neighboring communities, and the region.
- ▶ Ensure Township officials take advantage of training and educational opportunities for land use planning and zoning.
- ▶ Work in concert with the St. Clair County Metropolitan Planning Commission, Southeast Michigan Council of Governments (SEMCOG), and other planning entities to achieve the directives of the master plan.
- ▶ Update and integrate the Township's five-year parks and recreation plan and five-year capital improvement program into the master plan whenever the plan is updated.
- ▶ Utilize the future land use plan when considering zoning ordinance amendments, capital improvements projects, or the merits of a development proposal.
- ▶ Ensure land use and zoning changes are based on the goals, objectives, and implementation recommendations of the master plan.
- ▶ Ensure that public engagement and outreach occurs early in the process of preparing development plans and ordinance changes.

TRANSPORTATION/MOBILITY GOALS AND STRATEGIES

Goal 13: Strengthen walkability, accessibility, and connectivity throughout the township.

- ▶ Work with the Michigan Department of Transportation, the St. Clair County Road Commission, and other partners to improve pedestrian conditions and safety at major roads, particularly in the commercial corridor along M-25/24th Avenue and in residential neighborhoods.
- ▶ Continue to work with Blue Water Area Transit to ensure residents and workers in Fort Gratiot Township have access to reliable public transportation options.
- ▶ Collaborate with the St. Clair County Parks and Recreation Commission, the St. Clair County Road Commission, and other community partners to expand and maintain the non-motorized network in Fort Gratiot Township.
- ▶ Work with community partners to incorporate “Complete Streets” elements into all future road improvement projects and developments.
- ▶ Provide sidewalks and pedestrian ways whenever possible.
- ▶ Expand opportunities for linear forms of outdoor recreation, such as hiking, jogging, bicycling, equestrian, and walking trails.

Goal 14: Improve and support bicycle infrastructure in the township.

- ▶ Support a complete bicycle network in Fort Gratiot Township and connect Township infrastructure with assets in neighboring communities.
- ▶ Provide safe and convenient bike parking and amenities such as repair stations along trails and greenways and in Township parks.

Goal 15: Implement and maintain an efficient road network.

- ▶ Cooperate with the Michigan Department of Transportation (MDOT) and the St. Clair County Road Commission (SCCRC) to ensure that a proper relationship exists between planned road improvements and the Township’s desired future land use plan.
- ▶ Limit points of ingress/egress on major roads to improve safety and retain the traffic carrying capacity of the roadway.
- ▶ Improve the road system to better serve residents and businesses through a regular program of scheduled pavement maintenance, paving, repaving, curb and gutter construction, etc.
- ▶ Recognize the relationship between land use patterns and the availability and adequacy of the transportation system.
- ▶ Work with MDOT, the SCCRC, and other stakeholders to ensure the proper placement of signs and traffic signals.
- ▶ Collaborate with the neighboring communities, MDOT, the St. Clair County Road Commission, and other stakeholders on the development of corridor plans for key corridors as needed.
- ▶ Actively participate in the transportation planning process and communicate regularly with the St. Clair County Transportation Study (SCCOTS) to stay abreast of funding opportunities for transportation improvements.

FROM GOALS TO IMPLEMENTATION

The overarching intent of this master plan is to protect and improve the quality of life in Fort Gratiot Township. In order for the plan to be effective in guiding and managing change within the community, it will take continued commitment and support from the township board, the planning commission, administrative staff and citizens of the community. The vision, goals and objectives put forth in this plan will not implement themselves. Implementing the recommendations of the plan occurs through a number of methods including zoning ordinances, subdivision regulations, funding programs and administrative procedures which are described in this chapter. The master plan itself has no legal authority to regulate development in order to implement the recommendations contained therein. Implementation stems from the decisions of the Township officials, including the planning commission, to provide necessary public improvements and to institute and administer regulations over the use of land.

Previous chapters provide background information and analysis on the key issues and trends in Fort Gratiot Township at the time this plan was adopted in 2019. Goals and objectives throughout the plan provide a foundation to guide the resolution of issues and establish policies for decision-making in the future. Recommendations are listed throughout the plan; some are described in detail or shown on the various maps, while others are more of a policy guide for the future. This format enables the plan to be flexible and applicable to new issues, opportunities, and alternatives that may arise. This implementation chapter should be used as a resource when the Township begins implementing the goals and objectives of this plan. Over time, the Township may discover new implementation approaches.

MASTER PLAN REVIEW AND AMENDMENTS

The Township must commit to upholding the integrity of the goals and objectives of the document. The Michigan Planning Enabling Act (Public Act 33 of 2008) requires that the plan be reviewed and revised or reaffirmed at least every five years. The plan should be used on a consistent basis and discussed annually to determine if any amendments need to be considered. In addition, new planning commission and township board members should be provided with a copy of the document before they take office to give them background on the Township and its adopted policies.

In accordance with the MPEA and the Michigan Department of Natural Resources (MDNR), the Fort Gratiot Township master plan and five-year parks and recreation plan will be reviewed every five years and, if necessary, will be updated to remain a viable document. There is constant change in the community's economic, demographic, and social character, which warrants revising the plan to reflect the latest trends relative to long-range goals. If circumstances necessitate a change to the plan prior the five-year review, then the plan will be amended as necessary.

This master plan is intended to be an adaptable document. Master plan amendments should not be made without thorough analysis of immediate needs, as well as consideration of long-range impacts of amendments to the plan. The township board and planning commission should consider each proposed amendment carefully to determine whether it is consistent with the plan's goals and policies, and whether it will offer long-term benefits to the citizens of Fort Gratiot Township.

IMPLEMENTATION: REGULATORY TOOLS

THE ZONING ORDINANCE

Zoning is the process most often used to implement community master plans. Zoning is a legal means for the Township to regulate private property in order to achieve orderly and harmonious land use relationships. The zoning ordinance incorporates standards that promote the health, safety, and welfare of the public and property owners.

The official zoning map divides the community into different zones or districts within which certain uses are permitted and others are not. The zoning ordinance text notes the uses which are permitted and establishes regulations to control densities, height, bulk, setbacks, lot sizes and accessory uses.

In considering an application for the rezoning of property, it is critical to the success of this master plan that the planning commission reviews the Future Land Use Map AND the goals and intent of the existing/proposed land use categories before making any land use decisions. While the map serves a guide, the associated recommendations are found in the text. This relationship is described in more detail in the Zoning Plan chapter (Chapter 5). No zoning request which is inconsistent with this plan should be considered without first making an amendment to the plan.

Upon adopting this master plan, the Township should review its zoning ordinance and update the ordinance in accordance with the recommended changes laid forth in the Zoning Plan chapter (Chapter 5), the Future Land Use chapter (Chapter 4), and the goals and strategies outlined in this chapter. This will ensure that Fort Gratiot Township's zoning ordinance is based upon the master plan, as required by law.

PLANNED UNIT DEVELOPMENT (PUD)

Planned unit development (PUD) is a zoning concept that allows modifications to the zoning requirements of a site to achieve a pattern of development that is suited to the unique site characteristics and allows for negotiation between the community and the developer to achieve a mutual benefit. The PUD option permits a single site to be planned as a unit with a variety of housing types, land uses, and densities. Design flexibility is granted in return for a comprehensively planned site, preserved open space, infrastructure improvements and significant site plan scrutiny.

PUDs are appropriate in all areas, but are most often applied on large parcels. PUDs are an attractive option for communities because they can preserve a portion of the site as protected open space, allow the requirement of off-site infrastructure improvements, provide an added level of regulatory scrutiny, and enable significant parcels to be developed comprehensively according to sound planning principles such as mixing of uses.

The Township does have PUD regulations in its zoning ordinance. This tool may be an ideal option for developing areas in the township that are currently undeveloped or in need of redevelopment in the future. In particular, the PUD option is especially well-suited for the development focus areas identified in the future land use plan, including the potential repurposing of the Birchwood Mall.

IMPLEMENTATION: POLICY AND PROGRAMMING

THE UPTOWN BUSINESS DISTRICT

The Uptown Business District (UBD) is the primary commercial corridor in Fort Gratiot Township. Running north-south along M-25 from the Port Huron city limits to Carrigan Road, this corridor is a regional hub for a variety of commercial and business activities including: big box retail stores, restaurants, banks, car dealerships, and large commercial strip centers. Major gateways to the UBD include: M-25 from the south and north, and Krafft and

Keewahdin Roads from the east and west.

While the UBD continues to grow and evolve, the Township may be best served in undertaking a branding and marketing initiative recognizing the larger region that the UBD serves. While wayfinding and signage are important components of such a branding and marketing initiative, the streetscape concept should also be considered. A streetscaping initiative would include the visual elements of the street(s), including the road(s), adjoining buildings, sidewalks, street furniture, trees and open spaces that combine to form the street's character. Additional attention should be given to access management along M-25 to allow for greater pedestrian mobility and multi-modal activity.

GREEN BUILDINGS/SUSTAINABLE DESIGN

Sustainable design identifies ecological, infrastructural, and cultural characteristics of a site and/or building with related open spaces which results in the integration of the environment. The intent is to promote sensitive infill development that relates well to both natural systems and existing infrastructure with an overall design and construction that reduces energy use.

The United States Green Building Council's Leadership in Energy and Environmental Design (LEED) provides the benchmark for the design, construction, and operation of high performance green buildings and site design. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

A rating system has been developed and is continually updated through an open consensus based process which is the standard for environmentally healthy neighborhoods around the nation. New developments and revitalization of existing ones can be LEED-certified based on qualifying guidelines.

Township officials should incorporate sustainability and green building elements into future developments in the community. At a minimum, the Township should ensure that any new public facilities are designed and built with sustainability in mind, potentially seeking LEED-certification. Over the years, numerous studies have shown that LEED-certified buildings have lower operating costs, promote healthier neighborhoods, and conserve energy and natural resources, which lead to greater sustainability and benefits for the community.

COMPLETE STREETS

Complete streets look at how all modes of transportation, including cars, bicycles, and pedestrians utilize the road network and provide a plan to create safe, efficient access for all users. The Township should work with the St. Clair County Road Commission and other community partners to develop a complete streets plan to be considered whenever transportation improvement projects are considered in the community.

PARKS AND RECREATION PLAN

Each year, the Michigan Department of Natural Resources (MDNR) offers recreation grants for the acquisition and development of parks and recreation facilities through the Michigan Natural Resources Trust Fund, the Recreation Passport Grant Program, and the Land and Water Conservation Fund. Any local unit of government that has a current recreation plan approved by the MDNR is eligible to apply for one of these recreation grants. In order to be approved by the MDNR, a recreation plan must determine the Township's recreation needs and develop a five-year action plan of proposed recreation projects to meet those needs. Only those recreation projects included in the five-year action plan are eligible for recreation grant financing.

A parks and recreation plan is intended to guide decision makers with the future development and improvement of

the Township's parks, recreation facilities, and programs. The Michigan Department of Natural Resources provides communities with guidance on what components need to be included in a Parks and Recreation Plan and, ultimately, reviews local plans for state approval. In order for Fort Gratiot Township to be eligible for potential grant funding through the MDNR, it has to have a parks and recreation master plan that has been adopted within the last five years. Communities typically review and update their plans on a five-year cycle.

Beginning with this master plan, the Fort Gratiot Township five-year parks and recreation plan is now integrated within the overall master plan document and is now on the same five-year cycle. The parks and recreation plan can be found in Chapter 7 of this plan and can also stand alone (independent of the rest of the master plan) as the five-year recreation plan for Fort Gratiot Township if utilized separately.

IMPLEMENTATION: ADMINISTRATIVE ACTIONS

COOPERATION BETWEEN UNITS OF GOVERNMENT

Implementation will require cooperation between governmental units. Maximum impact will be achieved only if the Township is able to achieve cooperation from other units of government and agencies. Collaboration between local governments is a way to realize significant cost savings, while maintaining and expanding important services to residents and other stakeholders. Collaboration and coordination will also strengthen grant applications for funding assistance from many state and federal agencies that often look to fund projects that have a more regional focus. On top of that, intergovernmental cooperation can provide opportunities for economies of scale for procurement and service delivery.

PUBLIC INVOLVEMENT

Township leadership should ensure that residents and business owners are kept abreast of what is happening in the community. The public should be apprised of new development plans that are submitted for review and approval. In many communities, all active development proposals or projects are kept on a list on the municipal website, along with initial submittal dates, a processing timeline, and public hearing dates. This practice helps the community to build trust and to educate citizens about decisions regarding future development and public improvements. As technology changes, new methods of communication provide decision makers with low-cost, wide reaching ways of soliciting input. Social media such as Facebook and Twitter can be utilized to seek meaningful input during the development phase of projects to identify potential issues and adjust plans accordingly.

SETTING PRIORITIES

The master plan contains a multitude of recommendations. There may be insufficient staff or volunteer support to implement all of the recommendations in a planned, systematic manner. As such, a process for establishing priorities must be developed as soon as the master plan is adopted. Participants involved in setting priorities should include Township department heads and appropriate staff, the planning commission, and the township board. The township supervisor should facilitate this process.

REDEVELOPMENT READY COMMUNITIES (RRC) PROGRAM

According to the Michigan Economic Development Corporation (MEDC), the Redevelopment Ready Communities (RRC) program measures and certifies communities that integrate transparency, predictability and efficiency into their development practices with the goal of realizing a community-supported redevelopment vision that is inviting to investors. The RRC has developed a set of best practices for communities to follow to communities to build a clear and transparent development process. The six RRC best practices include:

- Community Plans and Public Outreach

- ▶ Zoning Regulations
- ▶ Development Review Process
- ▶ Recruitment and Education
- ▶ Redevelopment Ready Sites
- ▶ Community Prosperity

The Redevelopment Ready Communities program will make Fort Gratiot more attractive for investors and may spur new economic development. Additionally, becoming engaged in the program and working toward RRC certification will allow development projects within the Township to be eligible for potential incentive programs through the MEDC and other state agencies. The program is open to any community in Michigan - at no cost. According to the MEDC, those who will benefit most are communities that either already have an area of concentrated development such as a traditional downtown or commercial corridor or are planning for such development.

IMPLEMENTATION: GRANT PROGRAMS AND FINANCING TOOLS

Community Development Block Grants (CDBG)

CDBG funding through the Michigan State Housing Development Authority (MSHDA) and the Michigan Economic Development Corporation (MEDC) can be used for numerous community improvement projects in addition to housing rehabilitation. CDBG funds are required to be used primarily to improve housing opportunities and recreational and social opportunities for distressed portions of the community. CDBG funds can also be used for community and economic development. By using CDBG funds in distressed portions of the community, funds that would have been spent on completing those improvements are freed up to be used elsewhere. Therefore, while the residents of a distressed portion of the community benefit directly from the CDBG program, the township in general benefits by having funds that would have been spent available for other improvements. Often, the Metropolitan Planning Commission receives CDBG funding through the state for housing rehabilitation programs. Through those programs, eligible homeowners in Fort Gratiot Township can benefit from receiving zero or low-interest loans to make needed repairs.

RECREATION GRANT PROGRAMS

As mentioned earlier, the Michigan Department of Natural Resources (MDNR) offers a variety of grant programs for park development and land acquisition, including the Michigan Natural Resources Trust Fund (MNRTF), the Recreation Passport Program, and the Land and Water Conservation Fund. Each of these grants has different eligibility requirements and funding thresholds. All of the MDNR recreation grants require the Township to have a five-year recreation plan that has been adopted within the past five years.

BOND PROGRAMS

Bonds are one of the primary sources of financing used by communities to pay for capital improvements. General obligation bonds are issued for specific projects and are paid off by the general public through property tax revenues. Revenue bonds are issued for the construction of projects that generate revenue. The bonds are then retired using income generated by the project.

TAX INCREMENT FINANCING (TIF)

Tax increment financing is authorized by the Downtown Development Authority Act, Neighborhood Authority Act, Corridor Improvement Act, and the Local Development Finance Authority Act. Tax Increment Financing (TIF) is a popular method of financing the public costs associated with development and redevelopment projects. TIF occurs when a local government freezes the tax base within a specific development district and uses the revenues generated by reassessment or new development to finance selected improvements within the district. The term "tax

increment” refers to the additional taxes that will result from private development. This “increment” is earmarked or “captured” for the TIF or to other taxing units that otherwise would receive revenues.

BROWNFIELD REDEVELOPMENT

Michigan has developed several incentives for redevelopment, including cost-effective cleanup options, causation-based liability, liability protection for new owners, and grants and loans available to local units of government. Innovative use of available federal, state, and local resources can be incorporated into redevelopment incentives to support expansion and to encourage new businesses to locate in Michigan.

In 2004, the St. Clair County Board of Commissioners established the St. Clair County Brownfield Redevelopment Authority (SCCBRA) to assist in the revitalization of contaminated properties throughout the county. The SCCBRA is managed by the St. Clair County Metropolitan Planning Commission. In 2017, the SCCBRA - along with the St. Clair County Land Bank Authority, the City of Port Huron, the City of Marysville and Port Huron Township - was awarded its second EPA Brownfield Coalition Assessment Grant (its first grant was awarded in 2010). This grant can be used to assess the environmental conditions on sites suspected of being impacted by petroleum products or hazardous substances.

The SCCBRA supports projects throughout St. Clair County that require financial assistance with assessing potential environmental roadblocks or concerns. Michigan's Brownfield Redevelopment programs are some of the best in the nation, providing communities and developers of Brownfields with:

- ▶ Liability protection (for pre-existing environmental contamination)
- ▶ Opportunities for reimbursement of environmental expenditures
- ▶ Opportunities for low-cost loans
- ▶ Reimbursement of eligible redevelopment activities, including demolition and asbestos/lead abatement costs

Beyond the use of the Assessment Grant, Brownfield project funding is also made possible through the use of incremental taxes generated by redevelopment projects approved in a Brownfield Plan. For more information about the County's Brownfield program visit <http://www.stclaircounty.org/Offices/metro/Brownfield.aspx>.

IMPLEMENTATION: CAPITAL IMPROVEMENTS PROGRAM

CAPITAL IMPROVEMENTS PROGRAM (CIP)

Public Act 33 of 2008, also known as the Michigan Planning Enabling Act (MPEA), requires all communities to prepare a CIP unless exempted by statute or the legislative body of the community. Specifically, Section 65 of MPEA states:

To further the desirable future development of the local unit of government under the master plan, a planning commission, after adoption of a master plan, shall annually prepare a capital improvements program of public structures and improvements, unless the planning commission is exempted from this requirement by charter or otherwise. If the planning commission is exempted, the legislative body either shall prepare and adopt a capital improvements program, separate from or as a part of the annual budget, or shall delegate the preparation of the capital improvements program to the chief elected official or a nonelected administrative official, subject to final approval by the legislative body. The capital improvements program shall show those public structures and improvements, in the general order of their priority, that in the commission's judgment will be needed or desirable and can be undertaken within the ensuing 6-year period. The capital improvements program shall be based upon the requirements of the local unit of government for all types of public structures and improvements. Consequently, each agency or

department of the local unit of government with authority for public structures or improvements shall upon request furnish the planning commission with lists, plans, and estimates of time and cost of those public structures and improvements.

In its basic form, a CIP is a complete list of all proposed public improvements over the next six (6) years, including estimated costs and operation expenses. The CIP outlines the projects that will replace or improve existing facilities or that will be necessary to serve current and project land use development in the Township.

Proper management of communities today requires not only that a CIP be developed, but also that it be updated annually. Advanced planning for public works projects ensures more effective and cost-efficient capital expenditures, as well as the provision of public works in a timely manner. Since communities face ongoing expenses, the development of a CIP makes it possible to strike a balance between maintenance and operational expenses for the construction of public works.

Recommendations presented in the CIP can serve to guide Fort Gratiot Township investments in public facilities to provide necessary services to all land uses. Furthermore, with a CIP, the Township can monitor its balance of borrowing power and municipal credit rating, which in turn affects the interest rates the Township must pay when it borrows for public works construction.

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