

# 2022

## ORION TOWNSHIP MASTER PLAN



### Prepared by

ORION TOWNSHIP  
PLANNING COMMISSION  
2323 Joslyn Road  
Lake Orion, MI, 48360

### Adopted

July 20, 2022

Where Living is a Vacation

*Photo Source: Giffels Webster (2021)*

**giffels**   
**webster**

## RESOLUTION OF ADOPTION

### Master Plan Prepared By Orion Township Planning Commission

**WHEREAS**, the Orion Township Planning Commission may prepare and adopt a Master Plan for the physical development of the Township, as empowered by the Michigan Planning Enabling Act of 2008, and

**WHEREAS**, Orion Township has contracted with a professional planning consultant to assist the Planning Commission with the technical assessments necessary to make the Master Plan for the Township that includes a Future Land Use Plan, Complete Street Plan, Housing and Density Plan, Economic Development Plan and more, and

**WHEREAS**, Orion Township provided multiple opportunities for public input as part of the process including, but not limited to, two in-person open house workshops, one online open house, online resident survey, and multiple Planning Commission study sessions open to the public.

**WHEREAS**, the Planning Commission has held a public hearing on its proposed Master Plan on July 20, 2022,

**NOW THEREFORE BE IT RESOLVED** THAT THE Orion Township Planning Commission hereby adopts this Master Plan for the Township, along with the text, maps, charts, graphs, and other descriptive materials contained in the Plan.

Motion by: Vice-Chairman Gross

Supported by: Trustee Urbanowski

**AYES: 6**

**NAYS: 0**

**MOTION CARRIED**

**THIS 20<sup>th</sup> DAY OF JULY, 2022.**



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Scott Reynolds, Chairperson



---

Joe St. Henry, Secretary



# Acknowledgments



## **Planning Commission (PC)**

Scott Reynolds, Chair

Don Gross, Vice Chair

Joe St. Henry, Secretary

Kim Urbanowski, BOT rep.

Don Walker, PC rep. to ZBA

Derek Brackon

Jessica Gingell

## **Board of Trustees (BOT)**

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Courtney Keisman, Clerk II

## **Assisted by Giffels Webster**

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# What is in this Master Plan?



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This document replaces the 2015 Orion Township Master Plan and was prepared in accordance with the Michigan Planning Enabling Act. The 2022 Master Plan was created on the foundation of an updated community vision statement:

Orion Township, where Living is a Vacation, seeks to guide growth in a rational manner, striving to avoid patterns of “leapfrog” development. Innovative and flexible approaches for growth management and development regulations will be used, with the desired outcome of preventing overcrowding, protecting critical open space and natural resources, preserving a balance of housing options, preserving community character, minimizing traffic congestion, fostering creativity in design, and establishing vibrant places for community interaction, commerce, and recreation.

## Goals

The goals from the previous Master Plan were revised and combined into five broad categories:

1. High-Quality and Diverse Housing (Residential Areas)
2. Natural and Historic Resources (Environmental Resources and Historic Preservation)
3. Economic Development (Economic Development, Commercial, Office and Industrial areas)
4. Community Facilities (Community, Recreation and Complete Streets)
5. Community Character and Aesthetics

The plan addresses each goal above and includes an expanded description of each category along with accompanying objectives and action items for implementation.

## Public Engagement

There were several opportunities for public engagement including an online survey, two open houses and a public hearing, as well as monthly workshop discussions with the planning commission.

## Housing

The plan introduces new housing concepts that address the missing middle housing gap, which refers to duplex, triplex, quadplex, cottage court and other house-scale style developments, some of which are not explicitly permitted by the current zoning ordinance. These development concepts are used to accommodate and promote attainable housing for all members of the community and support the 15-minute neighborhoods.

## 15-Minute Neighborhoods

The 15-Minute Neighborhood concept is a key planning element, which is based primarily on how far a person can bike in 15-minutes from each node. Three key core areas in the Township include the Gingellville Village Center, Decker (near Silver Bell and Squirrel), and Friendship Woods (near Friendship Park). The fourth core area is the Village of Lake Orion.

## Economic Development Plan

A market assessment was conducted in order to identify specific areas of need and opportunity. The Economic Development Plan summarizes this study and offers 10 strategies that establish the framework for the economic development strategy. The plan also address three specific sites within the Township by providing preferred redevelopment scenarios based on the concepts of the land use plan.

## Implementation

The plan outlines specific action items to achieve the goals and objectives of the plan. These action items will be prioritized by the Planning Commission as it looks to implement the plan. This section also includes a Zoning Plan, which shows how the Master Plan categories align with Zoning Districts in the Township.





# Introduction



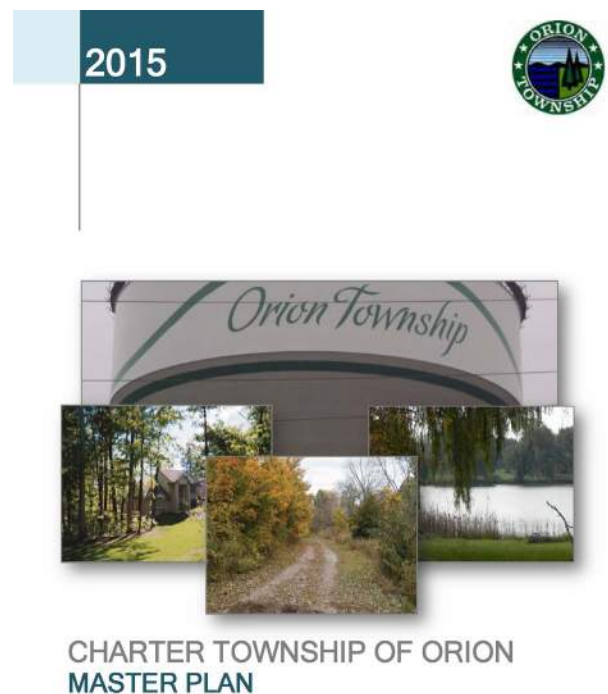
# Introduction

## Purpose of Master Plan

This 2022 Master Plan update represents an opportunity to affirm, reevaluate, and update the course of land development within Orion Township as identified and described in the 2015 Master Plan. This Plan contains the community's updated vision, goals, objectives, and strategies as developed during the collaborative process of updating the Plan that began in the fall of 2020. As with the 2015 Master Plan, the Plan is intended to guide future decision-making processes related to land development, as well as address the community's quality of life that results from both short-term and long-term planning decisions. Lastly, this Plan seeks to be an informative document for those that may not be aware of the many community-based initiatives that Township leadership, staff, and others have been continually working towards to advance Orion Township since the 2015 Master Plan and prior.

A sound Master Plan promotes a land use pattern that reflects a community's goals. It addresses planned future land uses and desired development, and other community features and amenities in a coordinated and organized manner. It portrays a clear statement of Orion Township goals and objectives, establishes a vision of the future, and includes a structure to achieve this vision through zoning and other means. If followed carefully, the Master Plan will have a lasting impact on the built and natural environment. Decisions made when the Plan is developed will likely be implemented over short-term, medium-term, and long-term timelines as specified in the Implementation Plan, which functions as an action-oriented conclusion of this Plan. This Implementation Plan should be referenced and considered by Township stakeholders on a regular basis as part of day-to-day functions and long-term community planning considerations and initiatives.

While the Master Plan is desired to be a living document, it is long-range in its view and is intended to guide development in the Township over a period of 10 to 20 years based on the information we have today, with reviews and any necessary updates occurring every five years in order to maintain required consistency with the Michigan Planning Enabling Act of 2008. The information and concepts presented in this Master Plan are to be used as a guide for local decisions on public and private uses of land and the provision of public facilities and services. This Plan also contains recommendations that directly relate to Township ordinances, specifically the Zoning Ordinance, and may also be of value for regional initiatives and improvements, such as roads and regional parks, that may not be directly controlled by the Township but may be influenced by the information contained within the Plan.



Source: Cover of 2015 Orion Township Master Plan

A photograph of a weathered wooden post-and-rail fence in a snowy field. The fence consists of vertical wooden posts connected by horizontal rails, though the rails are mostly buried in the snow. The foreground shows a close-up of a single post and the snow-covered ground. The background is a vast, flat, snow-covered field extending to a distant treeline under a clear, bright blue sky. The lighting suggests a sunny day, with soft shadows cast by the fence posts.

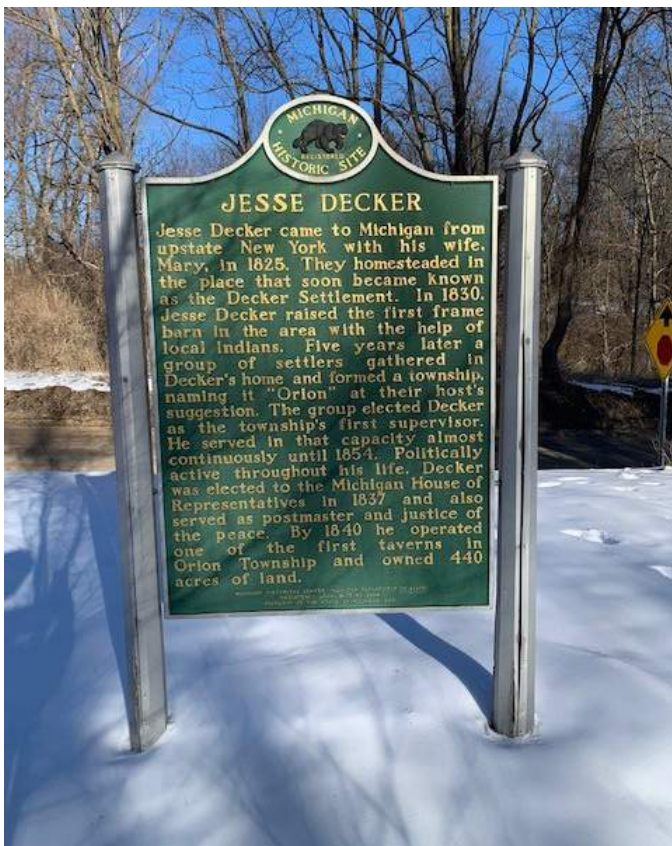
# History



# History

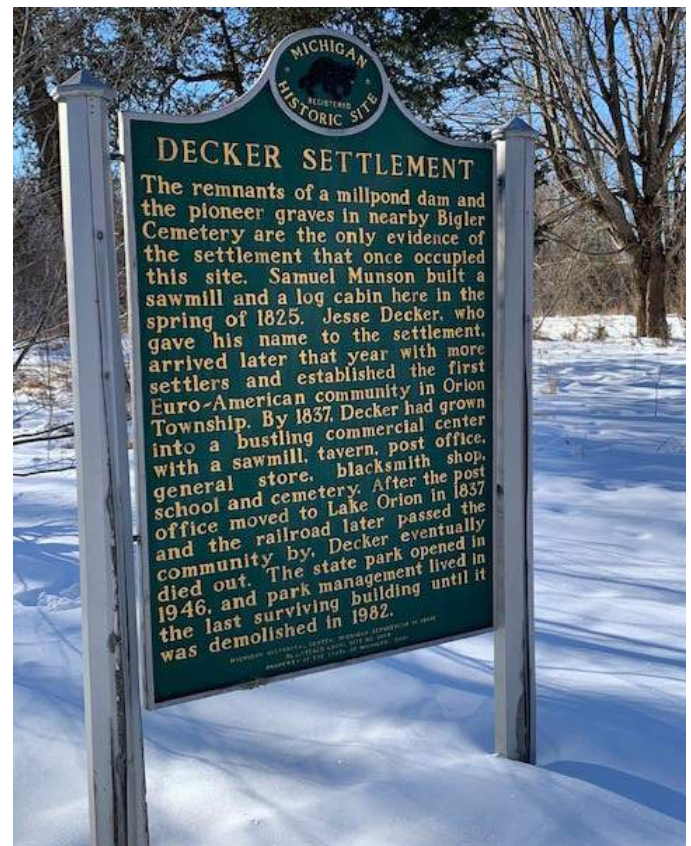
## Township Settlement

Orion Township was historically settled for agriculture and forestry. In 1819, Judah Church and John Wetmore purchased land in the midwest portion of the Township to harvest timber. This area was once known as “The Big Pinery” due to its abundance of large trees. However, the majority of early Township settlement occurred in the southeast portion of the Township. Jesse Decker was one of the first pioneers to locate in this area which became commonly referred to as “Decker Settlement” by locals. This was a collection of farms that were created from cleared woodlands that once covered this area, which may have contributed to this location being the first sawmill constructed in the Township. A historical marker located on the south side of East Greenshield Road, just west of Kern Road, acknowledges the location of Decker’s Settlement and Jesse Decker’s importance to Orion Township’s early formation.



Above: Historical Marker recognizing Jesse Decker

Source: Giffels Webster (2021)



Above: Historical Marker memorializing the settlement and original founders of the Township

Source: Giffels Webster (2021)



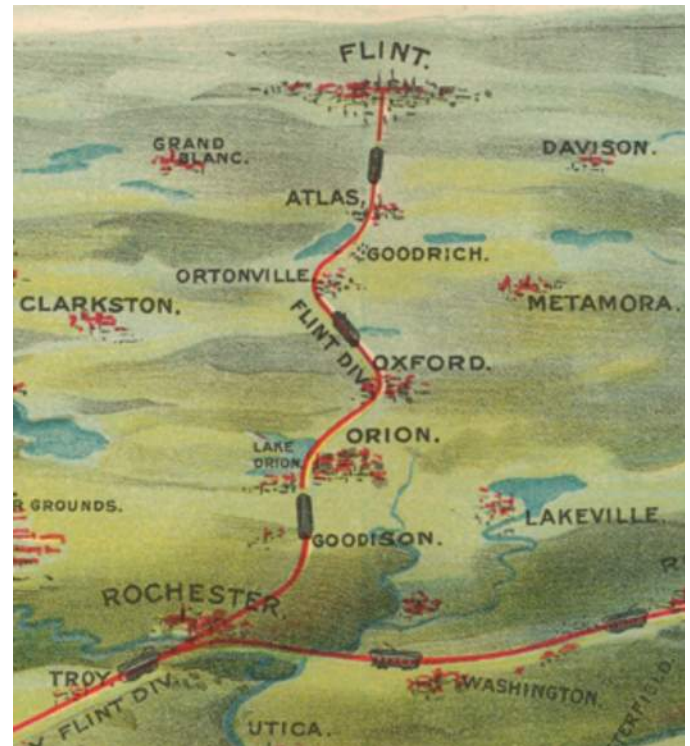
## Impact of Transit

In 1872, the Detroit and Bay City Railroad, later known as the Michigan Central Railroad, was constructed through the northeast portion of the Township connecting Detroit to Oxford, with the connection to Bay City completed in 1873. Through Orion Township the railroad was constructed on an old Native American trail that followed Paint Creek. Due to the limited means of transportation during this time, the opening of this railroad facilitated the flow of Township agricultural products to larger markets and provided access to needed goods for Township residents. In addition to its economic benefit, the unified ownership of the railroad corridor helped to preserve this old Native American trail route for reuse.



Above: A portion of the Detroit United Railway Map showing the portion of the route that traveled from Detroit through Orion Township, eventually ending up in Flint.

Source: *Detroit United Railway*



Above: Detroit United Railway Map showing the portion of the route that traveled from Troy to Flint.

Right: "Flint Division Excerpt" of a Detroit United Railway Brochure

Source: *Detroit United Railway*

### FLINT AND INTERVENING ATTRACTIONS.

Cars from Detroit to Flint follow the direct Pontiac line to Royal Oak and there diverge. From Royal Oak, you pass through such villages as Clawson, Big Beaver, and Troy to Rochester, a fascinating study in past and present, with its old flouring mills, its great knitting mills, its big beet sugar factory, its old homes and new, and the grand country about it. Beyond this, on the main line, comes Goodison, Rudd's Mills, Orion on Orion Lake, the famous place of assemblages and summer resorters, with its hotels, cottages, yachts and lighter craft, a summer place deserving all the praise given it; through enterprising Oxford, Ortonville, Goodrich and Atlas to the terminal. Flint is one of the biggest little cities in the world. It is not only handsome, but has endless interest in its varied industries and enterprises. Time, either way, 3 hours; fare each way, \$1.00. Cars every hour; connections with Pere Marquette and Grand Trunk Railroads.

Justice to the attractions of this division require mention of the branch to Romeo, leaving the main line at Lake Orion Junction. It penetrates a thickly settled and very old country for this part of the world, its excellence attested in fine school houses and churches, highly cultivated farms and "homey" homes. Stony Creek and Washington give attractions to the way, and when Romeo is reached, you find a place that stands apart in its day and generation, because of its nicely distributed wealth, culture, good taste and that admirable form of aristocracy that rests on merit. Time, 2 hours. Fare, 50 cents, one way. Cars every hour. The Grand Trunk Railway connects at Romeo.



## Interurban Transit

During the early 20th Century, Orion Township was also accessible using the Detroit United Railway (D.U.R.), which was a consolidated transit company that was in operation from 1900 to the 1920's operating across the City of Detroit and providing access to suburban communities. Orion Township was part of the D.U.R.'s Flint Division line, which connected Orion with Goodison and Rochester to the south, and several communities to the north, ending at Flint. From D.U.R. brochure "Trolley Rides in City and Country":



Left: A brochure advertising trolley rides on the Detroit United Railway.

Above: All three photos above show the Detroit United Railway Depot Station that was located in Orion.

Source: Detroit United Railway



## Paint Creek Trail

In the 1970's, the last rail line operator, Penn Central Railroad, abandoned the line and filed for bankruptcy. With railroad use ending, Oakland County and Orion Township began planning for the use of a trail through the corridor, which consisted of 8.9 miles of former railroad right-of-way connecting Rochester and Lake Orion. In 1981, the Paint Creek Trailways Commission was formed with the purpose of purchasing this land from the railroad for what today is known as the Paint Creek Trail, the first rail-to-trail conversion in the state. Please refer to the Paint Creek Trailways Commission for more information on this historic regional rail trail.

## Polly Ann Trail

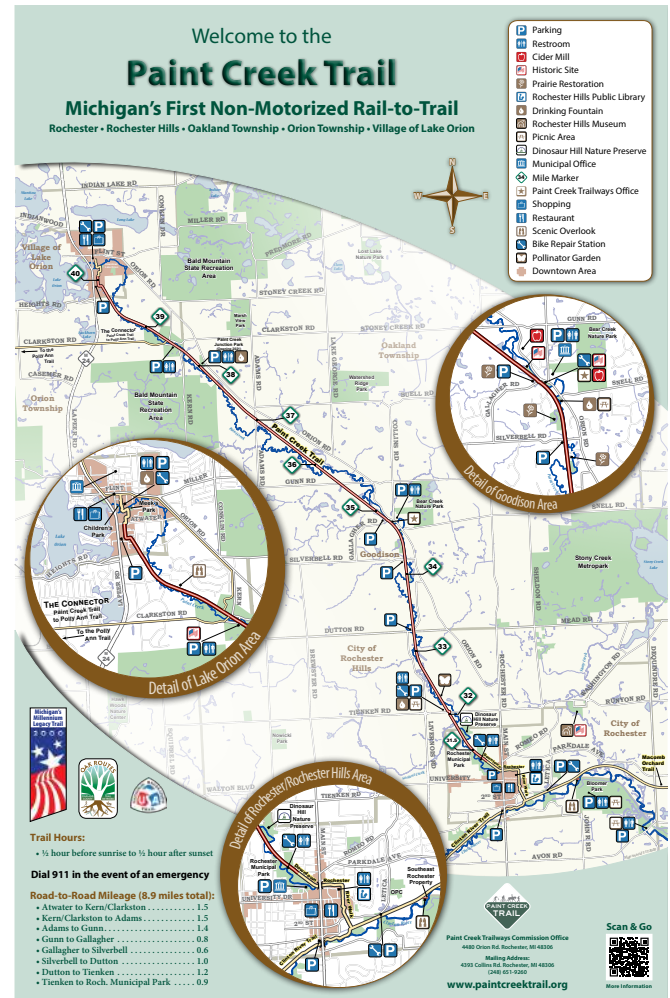
Another rail to trail project connecting Orion Township to the greater Southeast Michigan trail system is the Polly Ann trail, which connects to the Orion Township Pathway system on Joslyn just south of Waldon. From there, the trail runs north and follows the route of the original P.O. & N. rail line, which was established in 1879 as part of a route that ran from Pontiac to Port Austin. Like many other passenger rail lines in the area, the lightly traveled route was poorly managed and maintained and saw declining ridership throughout the 1900's. The line was eventually closed in 1984 and was purchased by the DNR with federal funds in 1994 from the Grand Trunk Rail Company.

Today the trail is owned by the Michigan Department of Natural Resources and is managed separately by groups in Lapeer County and by the Polly Ann Trail Management Council, Inc. (PATMC) in Oakland County.



Above: the Paint Creek Trail in Orion Township is a popular destination for those looking to get outdoors all year round.

Source: Giffels Webster (2019)



Above: A Map of the Paint Creek Trail, which connects Rochester to Lake Orion and traverses through Orion Township.

Source: Paint Creek Trail



Above: A sign located along the Paint Creek Trail in Orion Township denotes mile marker 38 of the former Michigan Central Railroad. The lines has since been converted to a non-motorized path.

Source: Giffels Webster (2019)



## Lake Orion

Lake Orion, known as Lake Canandaigua prior to 1834, is primarily man-made through the use of numerous dams. Prior to 1936, the lake was smaller than its current area and outletted to Paint Creek. In order to provide adequate water flow for water-powered mills, a dam was constructed. Over the years, a number of different dams were constructed as previous ones failed and often destroyed mills relying on the water flow.

As the route of the railroad ran along Lake Orion, a new, safer dam was constructed to ensure that the railroad grade would be stable. This new dam was higher and longer than the older mill dams, which enlarged the area of Lake Orion. With this new safer dam, water-driven mills became more practical and were a great benefit to the Township's lumber and agriculture industries.



Above: "Lake Orion, Mich. from R.R. tracks 1890-1901"

Source: Library of Congress

## Wildwood Farm (Canterbury Village)

From the Orion Historical Society: "In 1916, William E. Scripps heir to the Detroit News, founded Wildwood Farm as a land reclamation project to make over farmed land productive once again. He eventually acquired 3,830 acres and relocated earlier pioneer barns to a site on Joslyn Road, adding other farm buildings, manager housing, and a school for the farm's children. He developed one of the foremost stock breeding enterprises in America, and he developed a strain of disease-resistant Aberdeen Angus (Black Angus) beef. Scripps also raised purebred sheep, cows, swine, and chickens and had a modern dairy operation. Today, the original farm buildings are now incorporated into the unique shopping complex known as Canterbury Village. Visitors there can see the intact manager cottages, an original Hadrill family farmhouse, and the remains of several barns, including the large dairy barn, now converted to shops. Much of the farm's land and lakes are now parks and continue to provide for local wildlife as part of Orion Township's Civic Center Park, Oakland County's Orion Oaks Park, and Bald Mountain State Recreation Area."



Above: Lake Orion as seen from Heights Road

Source: Giffels Webster (2021)

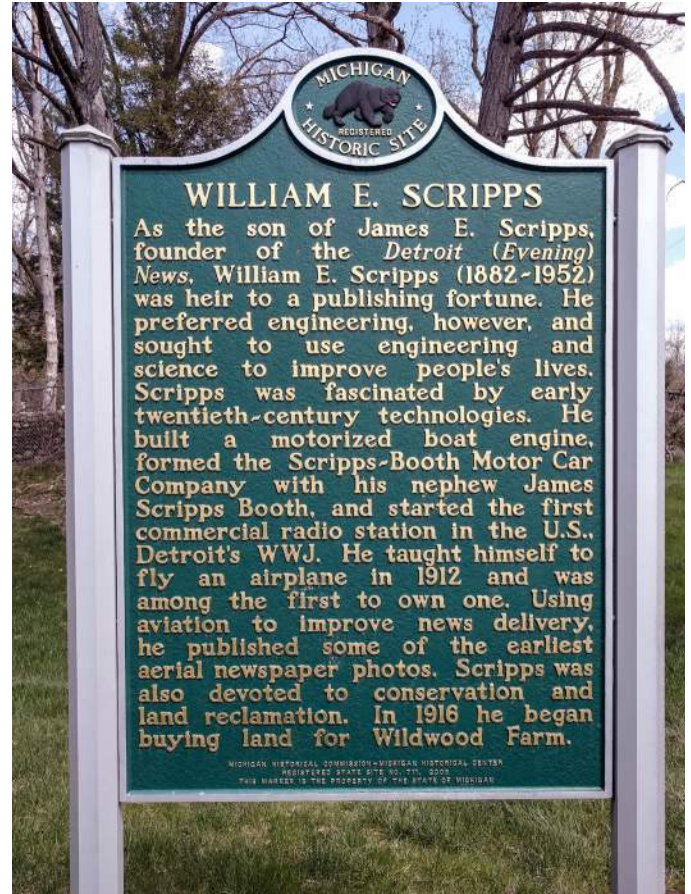


## Scripps Estate (Guest House)

From the Orion Historical Society: “Ten years after establishing the farm, Scripps and his wife Nina Downey Scripps began building a country retreat on part of the estate. Scripps engaged his talented brother-in-law, Clarence E. Day, to design the Norman revival style mansion with all the modern amenities available at the time. The result is one of the most artistically important American country estate homes of the era. After William Scripps died in 1952, the estate was subdivided, and Guest House, Inc., became the owner of the house and a little over 100 acres of grounds in 1956. At the time, the newly formed non-profit needed the right facility to begin its progressive treatment facility for alcoholic priests. The former Scripps house was ideal as a quiet place for clients to begin their recovery. In 1993, the priests moved to a facility in Minnesota, and the Orion Township site became a facility for religious women recovering from addictions. This year (2007), a modern treatment center has been built on the grounds for the clients. The house will continue to be used for treatment but will be more accessible to the public for programs and tours.”

## Historical Resources

For additional detailed information on the history of Orion Township, please refer to the Oakland County Historical Resources and the Orion Historical Society. This includes the publication “Orion Since 1818” by Paul M. Scott, which was commissioned by the Orion Township Library Board in 1976 in honor of the American Revolution Bicentennial and is one of the most comprehensive documents on the history of Orion Township. Additionally, the historic Howarth School House, a Michigan State Register of Historic Sites, and Porritt Barn have been relocated to Orion Parks’ Friendship Park for preservation and enjoyment by the public. Please refer to the Orion Township Parks and Recreation Plan for more information on Friendship Park.



Above: A historical marker denotes the site of the William E. Scripps estate.

Source: Joel Seewald (2020)

Right: Amelia Earhart performs a test flight of the Scripps glider over Wildwood Farm in Lake Orion, Mi in 1929.

Source: Henry Ford Museum digital collection (2022)



### Orion in History

In the winter of 1929, Amelia Earhart visited William E. Scripps’ estate for dinner where he asked her to test a new glider. She successfully flight-tested a glider for Scripps, owner of Gliders, Inc. and the Detroit News, on July 5, 1930, at Grosse Ile Airport, and she set three speed records (Lake Orion Review).

Amelia Earhart also flight-tested a wingless autogiro prototype version of the helicopter in 1931 and, as a sales agent, sold the first model to William E. Scripps of Orion for use by the Detroit News. (Source: Orion Historical Society.)



# Location & Regional Setting





# Location and Regional Setting

Established in 1835, the Charter Township of Orion, commonly referred to as Orion Township, is part of Metropolitan Detroit and is situated in northeast Oakland County. Orion Township is approximately 35 square miles excluding the home rule Village of Lake Orion located in the northeast corner of the Township. Orion Township and the Village of Lake Orion have a close relationship due to this proximity, and Township and village areas are often referred under the same name of “Lake Orion” or “Orion.”

The Village of Lake Orion has a local governance structure that is separate from Orion Township, however, Village residents are also part of the Township, they participate in Township functions, and they vote in Township elections. The Village has a separate Village Master Plan and zoning functions that are not shared due to this separate governance structure, which is rooted in State of Michigan enabling legislation.

The City of Pontiac, with its downtown located about 5 miles to the south of Orion Township, is the seat of Oakland County and is the closest urbanized area to Orion Township. Pontiac is separated from Orion Township by the City of Auburn Hills, which is formerly part of Pontiac Township and borders the entire south boundary of Orion Township. The City of Lake Angelus is also between Pontiac and Orion Township though it does not share a border with Orion Township.

Notably, Orion Township is an equidistant drive from Downtown Detroit, 35 miles to the south, and the City of Flint, 35 miles to the north, and has direct access to both cities via Interstate 75 which crosses near the south boundary of Orion Township. Interstate 75 is highway of regional and national significance, which has a direct local impact on the residents and economy of Orion Township.

Orion Township is bordered by Oakland Township to the east, Oxford Township to the north, and Independence Township to the west. Independence Township includes The City of the Village of Clarkston which is connected to Orion Township by Clarkston Road and Waldon Road, which are significant local east-west corridors through the area. Oxford Township and the Village of Oxford share a close relationship with Orion due to the Village of Oxford's close proximity and direct access provided by M-24/Lapeer Road, which is a limited access highway of regional and statewide importance. Waterford Township, located directly to the southwest, and Rochester Hills, located directly to the southeast of Orion Township, both offer a variety of retail, recreation, and employment opportunities.

Lastly, land devoted to parks and recreation accounts for over 25 percent of the land area within the Township. This area includes Orion Township parks, Orion Oaks County Park, and the Bald Mountain State Recreation Area, which includes three large state-owned areas within and to the east of Orion Township.



Source: Giffels Webster (2021)

MAP 1: ORION TOWNSHIP REGIONAL SETTING





# Existing Land Use



# Existing Land Use

## 2020 Land Use



### Residential

Approximately 37% of the land area in Orion Township is dedicated to residential land uses, which is slightly lower than Oakland County overall ratio of just under 43%. Most of the residential development is single family units, with nearly 85% of the single family lots consisting of less than one acre.



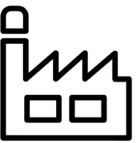
### Agriculture

As of 2020, the Township had one 15-acre parcel of agricultural land, located in the northwest quadrant.



### Commercial and Office

Commercial and office development account for 2.7 % of the total Township area (1.9% of all parcels). The commercial and office land uses are concentrated along the Lapeer, Baldwin and Brown Road corridors.



### Industrial

Industrial development is primarily concentrated in the southeast portion of the Township around the Brown-Giddings-W. Silverbell-Lapeer Road area and occupies 6 % of the land area within the Township.



### Open Space

Recreation and Conservation area account for nearly a quarter of the land area (24.3%) in the Township. This classification includes public or private-owned parks, golf courses, or areas of which the primary purpose is preservation and conservation of undeveloped natural areas.

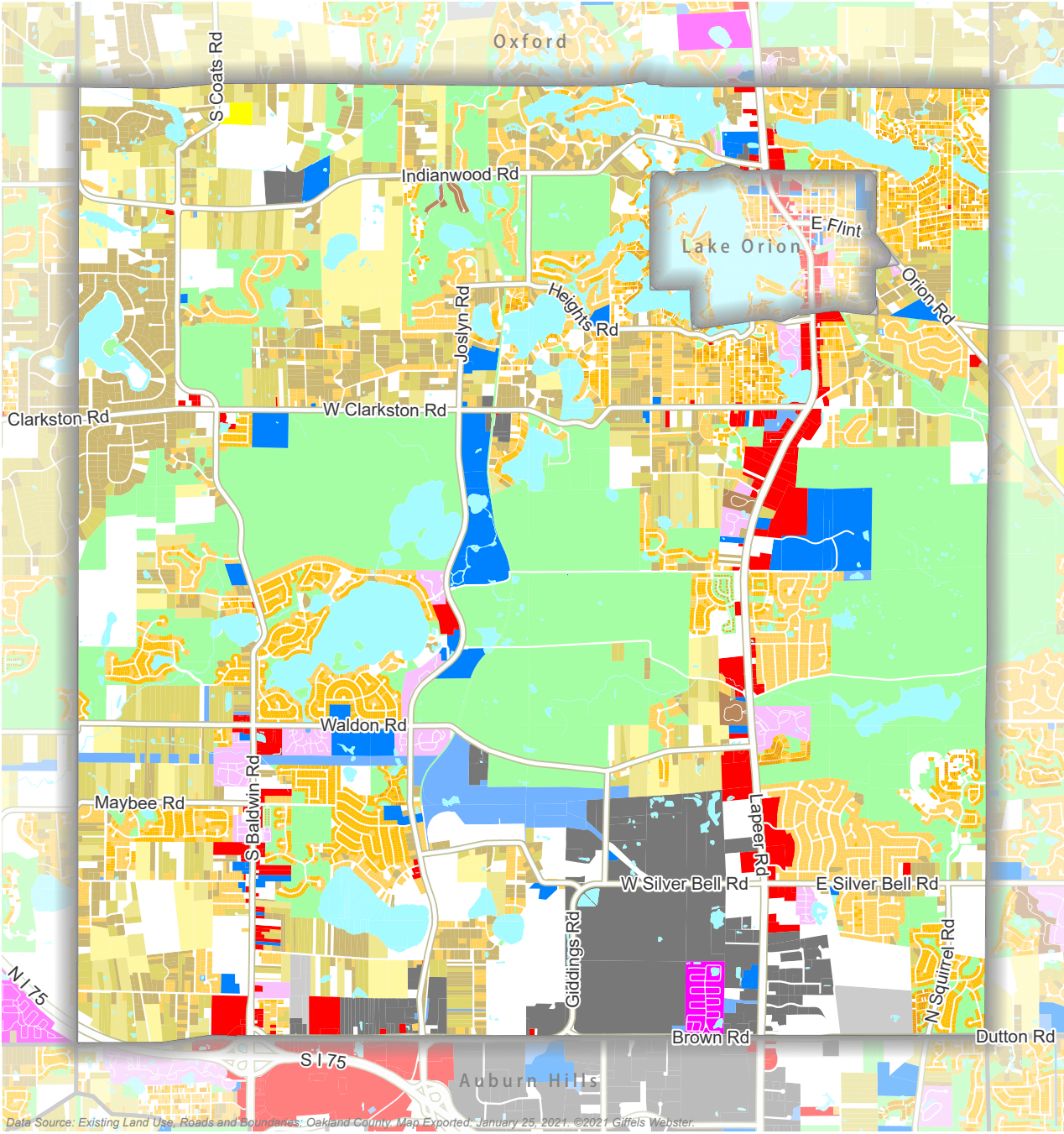


### Water

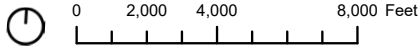
Orion Township has 42 lakes over five acres in size that occupy 7.6 % of the total area in the Township.



MAP 2: EXISTING LAND USE



Data Source: Existing Land Use, Roads and Boundaries: Oakland County, Map Exported: January 25, 2021. ©2021 Giffels Webster.



- |   |  |                                      |
|---|--|--------------------------------------|
| Agricultural                            | Single Family, Less than 8,000 sq. ft. | Recreation/Conservation              |
| Single Family, Greater than 10 acres    | S.F. More than one unit per parcel     | Transportation/Utility/Communication |
| Single Family, 5 to 10 acres            | Multiple Family                        | Vacant                               |
| Single Family, 2.5 to 5 acres           | Mobile Home Park                       | Extractive                           |
| Single Family, 1 to 2.5 Acres           | Commercial/Office                      | Water                                |
| Single Family, 14,000 to 43,559 sq. ft. | Industrial                             |                                      |
| Single Family, 8,000 to 13,999 sq. ft.  | Public/Institutional                   |                                      |



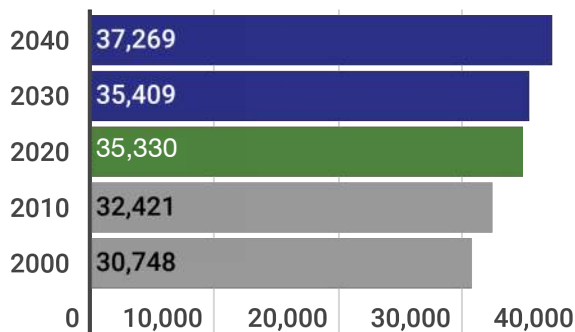
# Demographics



# Population

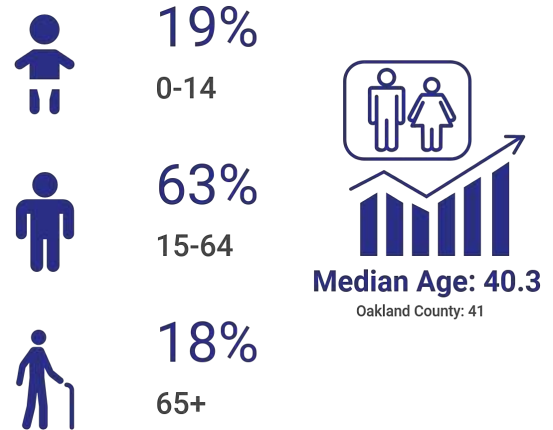
Understanding the demographics of a community is vital to sound policy making and planning. Demographics inform the trends in population, aging, migration, local economies, and much more. Master Plans rely on demographic analysis to better prepare for the issues and demands facing a community in the present and the future. The demographic makeup of a community contains valuable information that affects the types of resources, programming, and physical infrastructure required to meet the needs of residents and businesses. Proper planning for the future must consider the composition of the population and consider its likely future composition. Understanding where the Township has been and where it is likely to go is essential to projecting future needs.

## POPULATION GROWTH

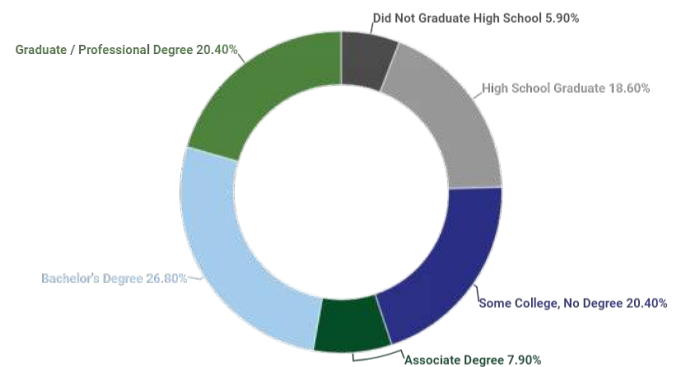


The Southeast Michigan Council of Governments (SEMCOG) is forecasting slow population growth in the Township between now and 2040. With a strong economic development program, excellent freeway access, natural features, and desirable small-town and rural character, the Planning Commission anticipates that growth will surpass these projections. For example, a modest one percent annual compound growth rate in population over 20 years would yield a 2040 population of about 45,400. Also, The Chesapeake Group notes marketable opportunities for up to 1,500 housing units over the next ten years. This would increase the population by approximately 3,800 people.

## POPULATION AGE



## EDUCATIONAL ATTAINMENT



## HOUSEHOLDS



**13,158**

**Total Households**



**2.46**

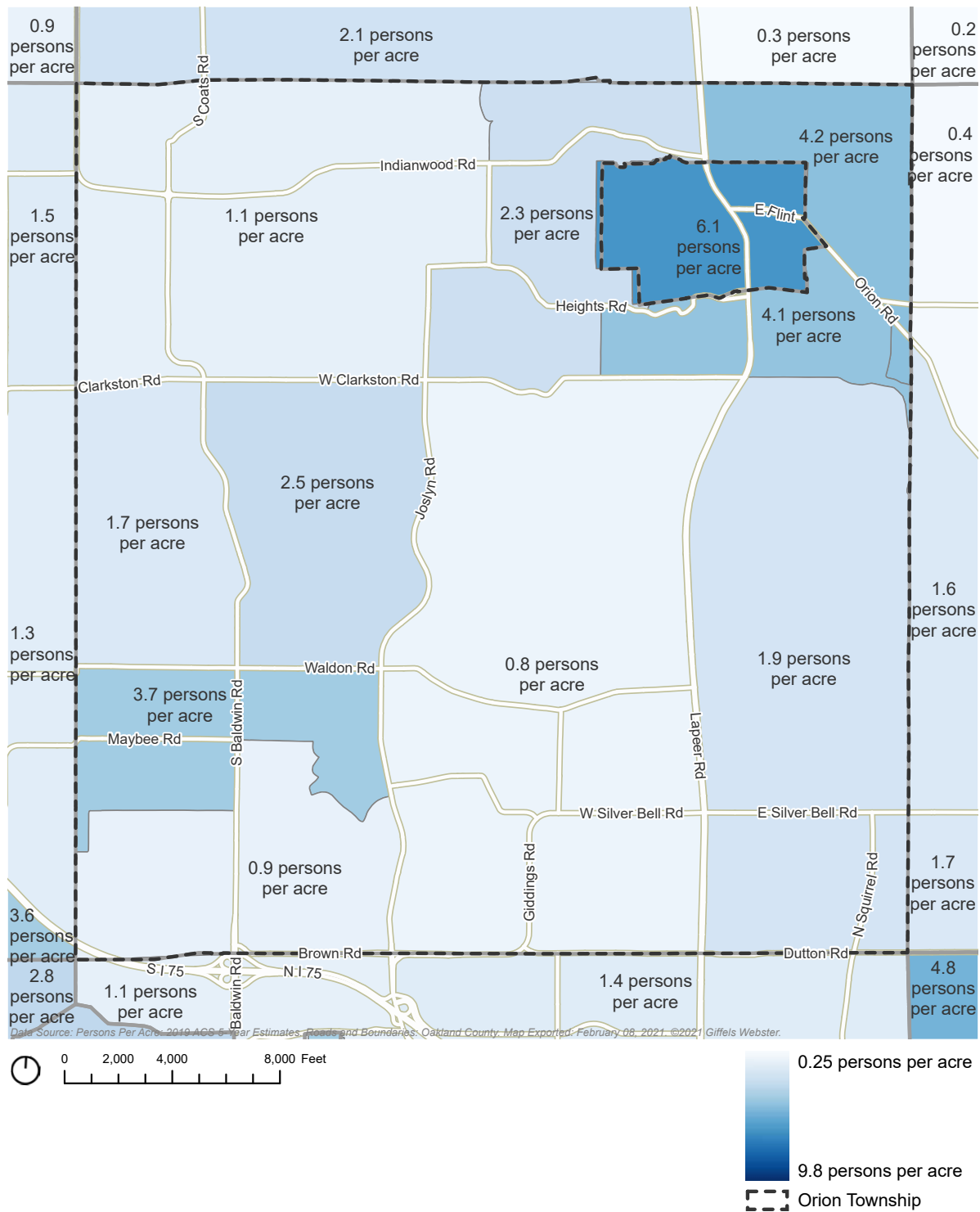
**Average Household Size**

Page data source: 2019 ACS data via SEMCOG Community Explorer





MAP 3 POPULATION DENSITY BY CENSUS TRACT



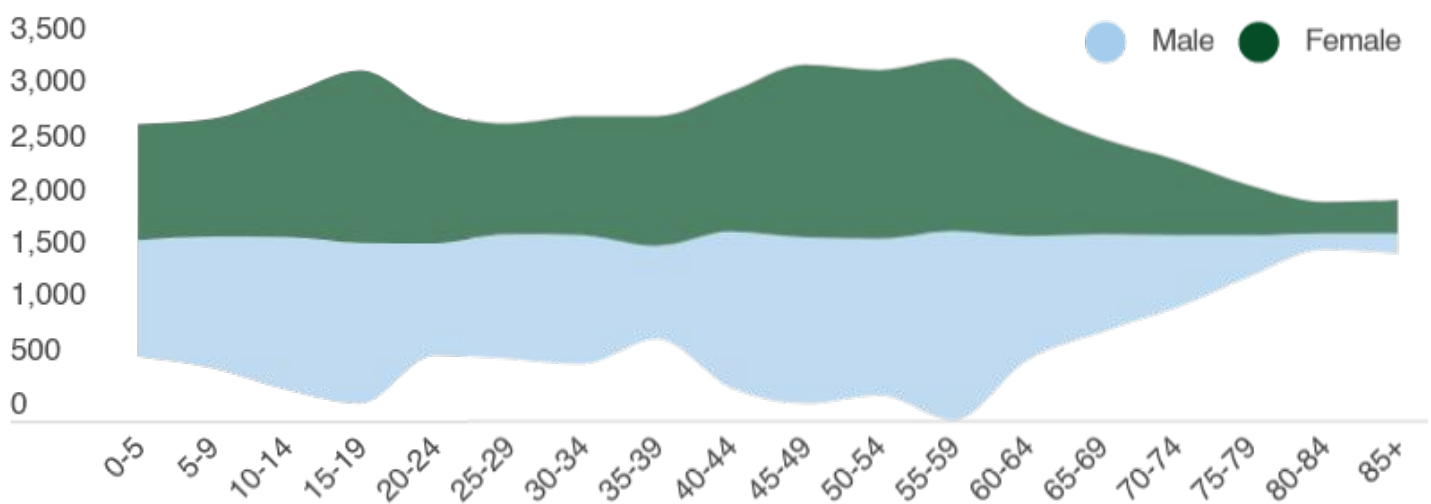
## Population Cohort Analysis

It is essential to understand the population's composition by age and sex to have a proper insight into demographic conditions and socio-economic trends. Orion has an almost equal distribution of male and female population on average. However, the ratio varies with age (see chart below). As they age, the ratio of females to males is increasing.

## Race

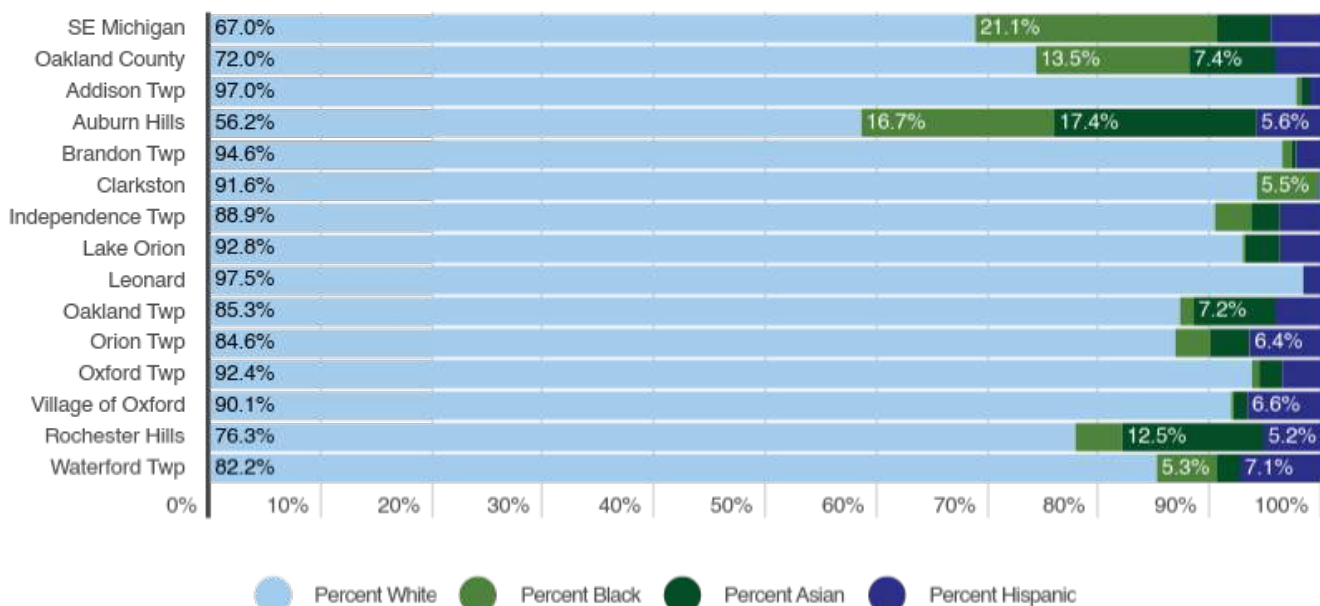
The racial composition in Orion Township is predominantly white at 84.6%, Orion's racial distribution is consistent with most of the surrounding communities except for the more diverse city of Auburn Hills. Orion Township also has a higher white population percentage than the county and SEMCOG, whose total population are 72% and 67% white, respectively.

FIG.1. POPULATION DISTRIBUTION BY AGE AND SEX



Source: 2019 ACS data via SEMCOG Community Explorer

FIG.2. RACE DISTRIBUTION: SURROUNDING COMMUNITIES

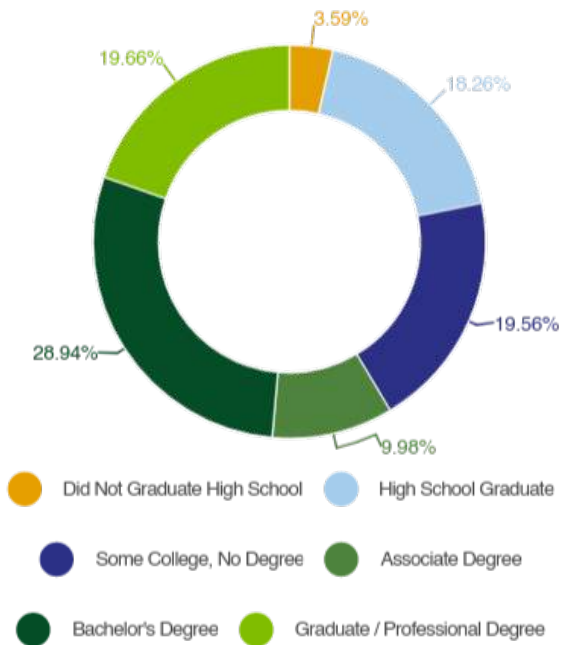






## Educational Attainment

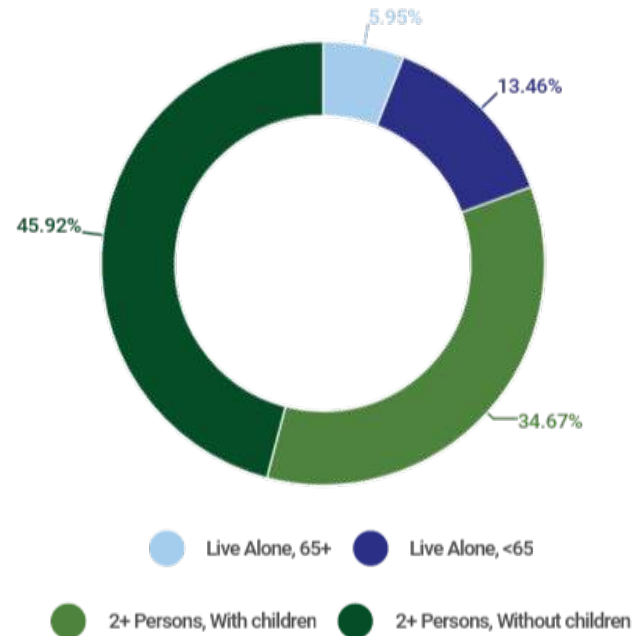
The highest levels of educational attainment result in a higher skill set and ultimately contribute to the local job growth. In general, about 80% of residents older than 25 years have some kind of associate or a higher degree past high school. Orion Township has a comparable percentage of bachelor degrees or higher graduates among the surrounding communities.



Source: 2019 ACS data via SEMCOG Community Explorer

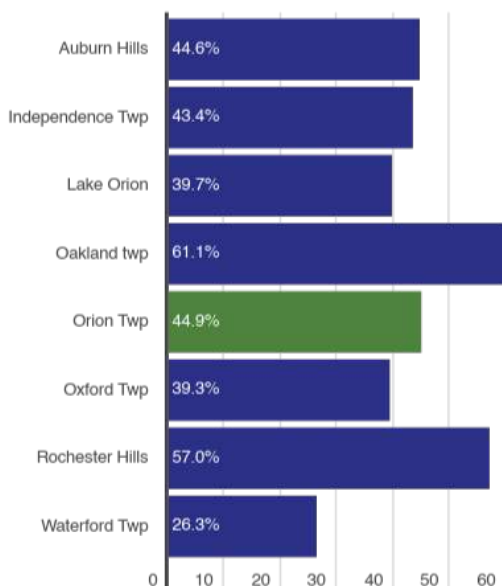
## Households

In 2019, there are a total of 11,673 households in Orion Township. Nearly half of the households are couples with no children (46%), and approximately 35% of the households are families with children. The remaining percentage is split between adults and elders who live alone. The average household size is slightly higher than the surrounding area, with 2.73 members per household.



Source: 2019 ACS data via SEMCOG Community Explorer

FIG.4. PERCENT BACHELORS DEGREE OR HIGHER: SURROUNDING COMMUNITIES



Source: 2019 ACS data via SEMCOG Community Explorer

TABLE 2. HOUSEHOLD TYPES

	Percent with Seniors	Percent with children	Average Household Size
SE Michigan	28.9 %	28.8 %	2.54
Oakland County	28.8 %	28.5 %	2.46
Auburn Hills	21.7 %	23.2 %	2.31
Independence Twp.	26.2 %	33.8 %	2.70
Lake Orion	28.9 %	27.8 %	2.22
Oakland Twp.	28.6 %	41.5 %	2.99
<b>Orion Twp.</b>	<b>22.4 %</b>	<b>34.7 %</b>	<b>2.73</b>
Waterford Twp.	27.5 %	25.4%	2.35

Source: 2019 ACS data via SEMCOG Community Explorer





A photograph of a brick wall with the word 'BARBERS' spelled out in large, raised, light-colored stone letters. A black, conical lantern sits on top of the wall. The wall is surrounded by green foliage and trees. A green banner with the text 'Local Economy' is overlaid on the right side of the image.

# Local Economy



# Local Economy

Identifying trends in employment can help a community project future need for land for certain use categories and assess potential opportunities for economic development. This section provides a brief overview of the Township's existing economic base. This plan also includes a market study that looks extensively at commercial demand and employment and businesses.

## WORKFORCE



**TOTAL JOBS**  
17,033



**UNEMPLOYMENT**  
2.5%

## INCOME



**MEDIAN HOUSEHOLD INCOME**  
\$98,741  
2010: \$91,493

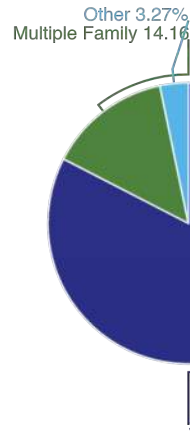


**PER CAPITA INCOME**  
\$44,957  
2010: \$39,265



**POVERTY RATE**  
5.8%  
Households in Poverty

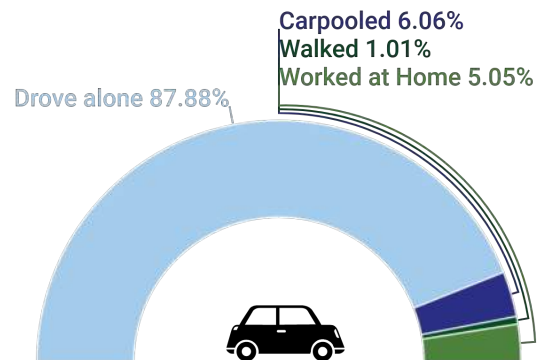
## HOUSING



**\$269,000**  
**MEDIAN HOUSING VALUE**  
COUNTY \$242,000

**\$1,094**  
**MEDIAN GROSS RENT**  
COUNTY: \$1,080

## TRANSPORTATION



**26.9 minutes**  
**MEAN COMMUTE TIME**  
COUNTY: 25.6 MIN

## INFLOW-OUTFLOW



Source: 2019 ACS data via SEMCOG Community Explorer

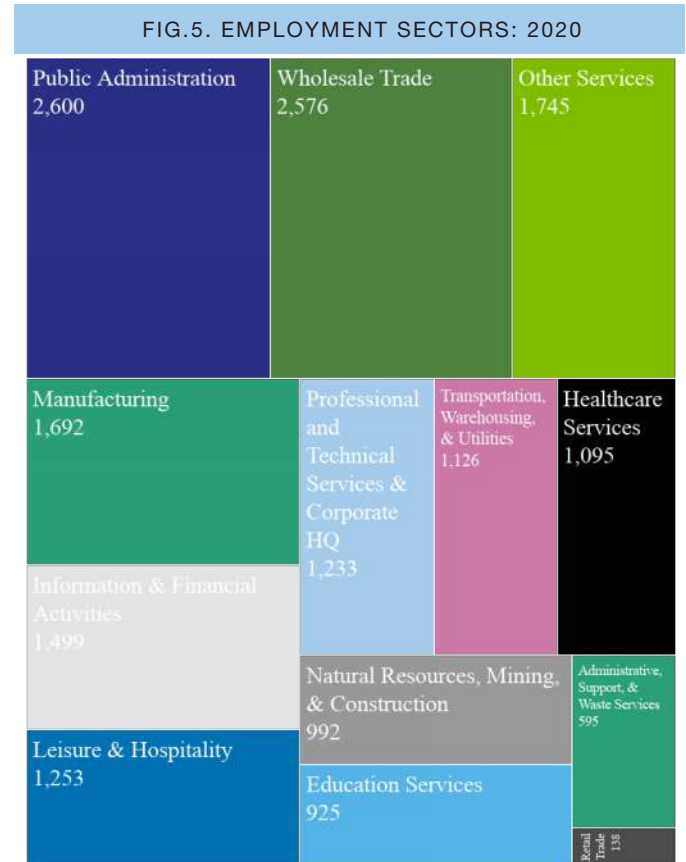




## Workforce

In 2020, Orion Township produced an estimated 17,469 jobs. The chart (below) shows the distribution of employment sectors for the Township. There is no dominant sector that contributes majorly to the local economy, however, the public administration, wholesale trade and other services trades comprise about a third of all jobs. The percent contribution of each of these industries to the total employment within the Township is relatively identical since 2015 and is projected to remain the same with minimal variation in 2045. The total number of jobs is projected to increase by 398 jobs from 2020 to 2045, which represents a 2.3% rate of jobs growth. Refer to the table below for more details.

A robust economic development program could substantially increase the job forecast from SEMCOG shown in Table 3 below. The Chesapeake Group is forecasting marketable opportunities for 270,000 sf of retail and service space, 100,000 sf of office space and 200,000 sf of industrial space over 10 years. In addition, on January 25, 2022, General Motors announced a \$4 billion investment to convert the GM Orion facility to produce electric trucks. This investment is expected to create more than 2,350 new jobs at Orion and retain approximately 1,000 current jobs when the plant is fully operational.



Source: 2019 ACS data via SEMCOG Community Explorer

**TABLE 3. EMPLOYMENT SECTORS (PAST, PRESENT AND FUTURE)**

	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045	
<b>Total Employment Numbers</b>	<b>17,033</b>	<b>17,469</b>	<b>17,269</b>	<b>17,179</b>	<b>17,373</b>	<b>17,456</b>	<b>17,431</b>	<b>398</b>	<b>2.30%</b>
Public Administration	2458	2600	2613	2586	2575	2552	2493	35	1.40%
Wholesale Trade	2885	2576	2415	2224	2102	1995	1880	-1005	-34.80%
Other Services	1690	1745	1768	1778	1,817	1,859	1884	194	11.50%
Manufacturing	1611	1692	1691	1712	1752	1759	1779	168	10.40%
Information & Financial Activities	1,368	1,499	1,539	1,558	1,592	1,664	1,659	291	21.30%
Leisure & Hospitality	1,219	1,253	1,223	1,200	1,194	1,184	1,168	-51	-4.20%
Professional and Technical Services & Corporate HQ	1175	1233	1159	1253	1,349	1,332	1,346	171	14.60%
Transportation, Warehousing, & Utilities	975	1126	1072	1057	1068	1079	1091	116	11.90%
Healthcare Services	1,014	1,095	1,147	1,184	1,274	1,365	1,450	436	43.00%
Natural Resources, Mining, & Construction	1,020	992	993	992	1004	1009	1023	3	0.30%
Education Services	904	925	923	913	913	912	905	1	0.10%
Administrative, Support, & Waste Services	576	595	589	587	598	611	618	42	7.30%
Retail Trade	138	138	137	135	135	135	135	-3	-2.20%

Source: SEMCOG 2045 Regional Development Forecast



## Employment

The total number of jobs in the Township makes up 1.7% of the total jobs in the county. The Township's unemployment rate is lower than the county's and is lower than the rate in surrounding communities. The labor force participation rate of 70% is higher than the surrounding areas and the national average of 62.8%. A higher labor force participation rate and a lower unemployment rate indicate a successful local job market. These rates are impacted by demographic and economic trends. For example, adults aged 25-64, people who are typically in the workforce make up to 63% of the total Township population which explains the 70% labor participation rate.

**TABLE 4. EMPLOYMENT WORKFORCE: SURROUNDING COMMUNITIES**

	Total Jobs	Percent Unemployed	Labor Force Participation Rate
SE Michigan	2,774,223	6.2%	63%
Oakland County	960,562	3.6%	66%
<b>Orion Twp.</b>	<b>17,033</b>	<b>2.5%</b>	<b>70%</b>
Auburn Hills	66,539	6.0%	69%
Independence Twp.	17,024	4.6%	68%
Lake Orion	1,945	2.9%	71%
Oakland Twp.	5,151	4.7%	66%
Rochester Hills	41,559	2.9%	63%
Waterford Twp.	33,441	4.5%	67%

Source: 2019 ACS data via SEMCOG Community Explorer

## Income

Median household income and per capita income (average income per person) are typical metrics to determine the standard of living in a community. Orion Township has a median household income of \$98,741, which is significantly higher than the county median of \$79,698. The Township has a per capita income of \$44,958.

**TABLE 5. INCOME DATA: SURROUNDING COMMUNITIES**

	Median Household Income	Average Income Per Person
SE Michigan	\$61,926	\$34,632
Oakland County	\$79,698	\$44,629
<b>Orion Twp.</b>	<b>\$98,741</b>	<b>\$44,958</b>
Auburn Hills	\$64,186	\$33,071
Independence Twp.	\$94,018	\$44,534
Lake Orion	\$90,999	\$49,172
Oakland Twp.	\$146,228	\$63,546
Rochester Hills	\$93,953	\$47,881
Waterford Twp.	\$62,321	\$34,524

Source: 2019 ACS data via SEMCOG Community Explorer

**FIG. 6. MEDIAN HOUSEHOLD AND AVERAGE INCOME PER PERSON (2019)**



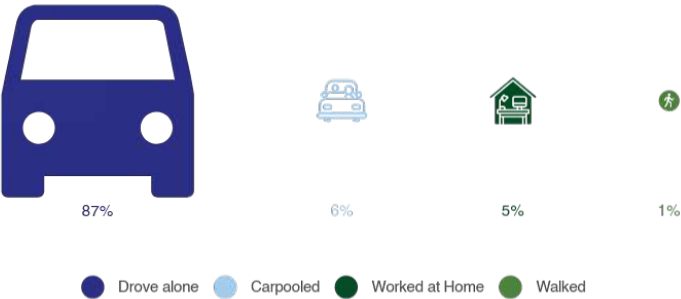
Source: 2019 ACS data via SEMCOG Community Explorer



Transportation

In Orion Township, the majority mode of travel to work is by car alone (approximately 87%) which is similar to national trends. This is followed by carpooling at 6%, followed by 5% who work from home; 1% walk to work.

FIG.7. MODE OF TRAVEL: ORION TOWNSHIP



Source: 2019 ACS data via SEMCOG Community Explorer

FIG.8. INFLOW-OUTFLOW COMMUTE PATTERNS: ORION



TABLE 6. DAYTIME POPULATION

Jobs	12,576
Non-Working Residents	16,770
Age 15 and under	8,051
Not in labor force	7,657
Unemployed	1,062

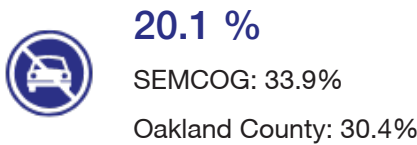
Daytime Population  
29,346

Source: 2019 ACS data via SEMCOG Community Explorer

Car Ownership

In Orion Township, there is a total of 13,158 households. A majority of households (79.1%) have at least one car, which is above the county average.

FIG.9. HOUSEHOLDS WITH NO CAR



Travel Times

In 2019, the mean travel time to work for Orion residents was about 26.4 minutes, which is comparable to the county mean (25.6) and United States (26.1).

Commute Patterns

Orion Township experiences a decrease in its population during the daytime, as the number of workers that leave the Township for work is more than the number that come to the Township for work. Overall, the Township’s daytime population is about 21% smaller than its permanent population. Auburn Hills and Troy are the most common places of employment for Orion residents outside the Township.





# Community Facilities





# Community Facilities

Community facilities include both physical facilities located within the Township as well as services provided by the Township and other governmental or quasi-public entities operating in the area. Community facilities include essential facilities or services like a fire station or public utility, or may be non-essential facilities or services such as a public park or library. Both essential and non-essential community facilities play a vital role in the growth potential of the Township and resident retention. A welcoming Township Hall, the availability of public safety services, attractive recreational and cultural facilities, and strong public school and library systems are some examples of community facilities that can help draw new people to the Township and enhance the quality of life of existing residents. As part of the 2015 Master Plan, there was a specific focus on addressing areas of need related to the Township Civic Center, the Orion Center, and fire and police services. Updates on these three community facilities are provided within this section. Additionally, the safety path plan is based on creating connections between the many community facilities located within the Township, and references to community facilities related to planning and transportation are provided throughout this Master Plan update.

## New Township Hall and Sheriff Substation

Construction of a new Orion Township Hall began in late 2019 and opened for business in fall of 2021. The new Township Hall site is located on the southeast corner of the intersection of Joslyn Road and Scripps Road, on Township-owned land, and is just to the north of the former Township Hall on the east side of Joslyn Road south of Greenshield Road.

The new Township Hall addresses the space needs of Oakland County Sheriff deputies also operated out of the former Township Hall, providing a separate 8,000 square-foot building dedicated exclusively to policing needs. The main Township Hall building is about 32,000 square feet housing modern office, meeting, and public spaces for Township staff, leaders, residents, and patrons. The new Township Hall was designed by Auger Klein Aller Architects and was funded through municipal bonds. No taxes were raised to fund construction. Future improvements on the new Township Hall site include future sports fields and a trail network that includes a connection to the Polly Ann Trail which runs near the east boundary of the site.



Above: The new Orion Township Hall opened in January of 2022.

Source: Giffels Webster (2022)



## Police and Fire

Police and fire services are funded under the Township's dedicated millage rate of 3 mills. Police services are contracted through the Oakland County Sheriff's Department and staffing and equipment have been adjusted to keep pace with land use. The Township recently opened a new fire station on Giddings Road and renovated a second existing fire station. The Township's fire department is ALS certified (Advanced Life Support).



Above: Fire Station 1 and Fire Station 3, Orion Township Source: Giffels Webster (2021)

## STATION & APPARATUS LOCATIONS



### Station 1

[93 S. Anderson Lake Orion, MI 48362](#)

**Apparatus:** [Alpha 1](#), [Air 1](#), [Engine 1](#)



### Station 2

[3801 Giddings Rd. Lake Orion, MI 48359](#)

**Apparatus:** [Alpha 2](#), [Engine 2](#), [Ladder 1](#)



### Station 3 and Fire Administration

[3365 Gregory Rd. Lake Orion, MI 48359](#)



### Station 4

[465 S. Baldwin Rd. Lake Orion, MI 48360](#)



## Orion Township Public Library

(From [orionlibrary.org](http://orionlibrary.org))

The Lake Orion Library, established by the Lake Orion Women's Club in 1926, was first located on the second floor of 37 East Flint Street in the Village of Lake Orion.

- In 1929, Orion Township residents ratified a proposition to levy taxes in support of the Lake Orion Library, renaming it the Orion Township Free Public Library.
- In 1940, it was moved to the Hemingway House on Lapeer Street in the Village of Lake Orion and grew until the floorboards sagged.
- In 1964, the first formal library was built at 845 South Lapeer Road. Opening in 1965, this building met the community's needs for the next 23 years.
- In 1986, the Orion community passed a bond to create the new Orion Township Public Library to serve the next generation of Orion residents.

The 29,000 square foot building opened at its current location on Joslyn Road in February of 1989. Designed to serve a population of 30,000 and house a collection of 100,000 volumes with a capacity for a 200,000 items per year circulation, the new Orion Township Public Library is spacious and inviting, offering quiet study areas, comfortable seating, meeting rooms for community gatherings, and the latest titles, as well as state-of-the-art computers and other new technologies.

1926-40



1940-65



1965-89



1989-now



### Mutual Aid Agreements/Assessing

As part of Orion Township's arrangement with the Oakland County Fire Chief Association, a mutual aid agreement was signed with surrounding communities to provide necessary services for fire protection. The mutual aid agreement, known as Mutual Aid Box Alarm Society (MABUS 320) provides for specific responses based on needs and alarm priorities. This mutual aid pact allows for Orion Township to receive and render aid in emergency situations when resources have been placed at their maximum. In the event of serious structure fires or other emergencies, Orion Township will be provided with the necessary aid from all adjacent communities and receive resources from County, State and Federal sources. Orion Township relies upon the Oakland County Equalization Department for assessing and assistance regarding property taxes.



Above: Orion Neighborhood Television (ONTV) is a community tool used for a variety of communications, including the annual local food drive.

*Source: Orion Neighborhood Television (2022)*

### Senior Services

Orion Township offers a number of services and resources for its seniors. Services include free transportation via the North Oakland Transportation Authority (NOTA), senior sports & fitness programs, trips, and senior clubs. Many senior programs are run out of the Orion Center, located at 1335 Joslyn Road. The Orion Center, built in 2011, is home to the Community Programs Department which encompasses general recreation programming and senior services. The building incorporates a variety of recreation facilities, including a senior fitness room, yoga room, and arts and crafts room. The Orion Center also features a wellness center and a branch of the Orion Township Public Library.

### Orion Neighborhood Television

Orion Neighborhood Television is a community media outlet. Its mission is to empower community members and groups to create, communicate and connect through television and video production. It is based out of the Orion Center on Joslyn Road and is intended to provide transparency in government through media while also providing internship opportunities.

## Existing Utilities

### Public Water and Sewer Services

Currently, the Township is served by the Detroit Water System. The Detroit Water System has been extended along M-24 to a point north of Indianwood Road and along Brown Road to serve the General Motors plant and the industrial sector in the southeast and south-central part of the Township. The Detroit Water System also extends along Brown Road to Baldwin Road, then north on Baldwin Road just north of Clarkston Road.

Existing and planned water service areas are depicted on Map 4 on the next page. A large main was recently installed along Baldwin Road that loops to Indianwood Road. The intent of the loop is to provide alternatives in case of a service disruption, thereby providing for the health, safety and welfare of Township residents and businesses. The Township has extended Detroit Water westerly in a loop that follows along Giddings, Silverbell, Joslyn, and Brown Roads. This loop relieves the community well system that did serve the Keatington and Judah Lake subdivisions. An additional loop is planned for Miller, Conklin and Indian Lake Roads.

The accompanying Sanitary Sewers map (Map 5) depicts the areas served in the Township and distinguishes between the Paint Creek Interceptor and the Oakland-Orion system. The existing sanitary sewer area in Orion Township covers some residential subdivisions, including the Keatington and Judah Lake subdivisions, the Heather Lake area, and subdivisions surrounding the Village of Lake Orion, the industrial sector in the southeast part of the Township and sparsely developed residential areas along M-24 and Waldon Road.

The Water & Sewer Division services over 5,000 water customers and over 7,000 sewer customers. The water and sewer system contains over 150 miles of water mains and over 140 miles of sewer mains; 23 sewer lift stations; 6 pressure reducing vaults; over 1,700 fire hydrants; and a 2.5 million gallon water storage facility. Orion Township recently added two new water loops and is continually seeking solutions to better service the residents.

### Drainage

Orion Township lies within the Clinton River Watershed; therefore all surface water eventually works its way to the Clinton River. However, the community is divided into several sub-watersheds. The major sub-watersheds include the Paint Creek and the Main-Clinton, while the Stony Creek covers a small portion of the northeastern corner of the Township. Several smaller sub-watersheds are also located within the Township and include the following: Sashabaw Creek, Trout Creek, Lake Angelus, Galloway Creek and Galloway Ditch.

There are several Oakland County Drain Water Resources Commission drains (enclosed and open ditch) that serve Orion Township, including: Brown Drain, Dry Run Drain, Reid & Branch Drain, Paint Creek Drain, Axford Drain, Osgood Drain, and the Ballard Drain (see Map 6). There are several other small streams that serve as, tributaries to the Township's major drains.

Drainage for the most of Orion Township is private or non-governmental, and the individual property owners in the Township are typically responsible for their own storm water drainage. The Township's Stormwater Management Ordinance, No. 92, is one of the primary tools in controlling impacts of new developments, as well as providing for other benefits. It is expected that, as Orion Township continues to develop, active maintenance of the Township's creeks and County drains will be increasingly important to the prevention of future flooding and drainage concerns. While already in place, Orion Township must continuously monitor and update its ordinances and policies to ensure that they meet Federal Clean Water Act requirements.



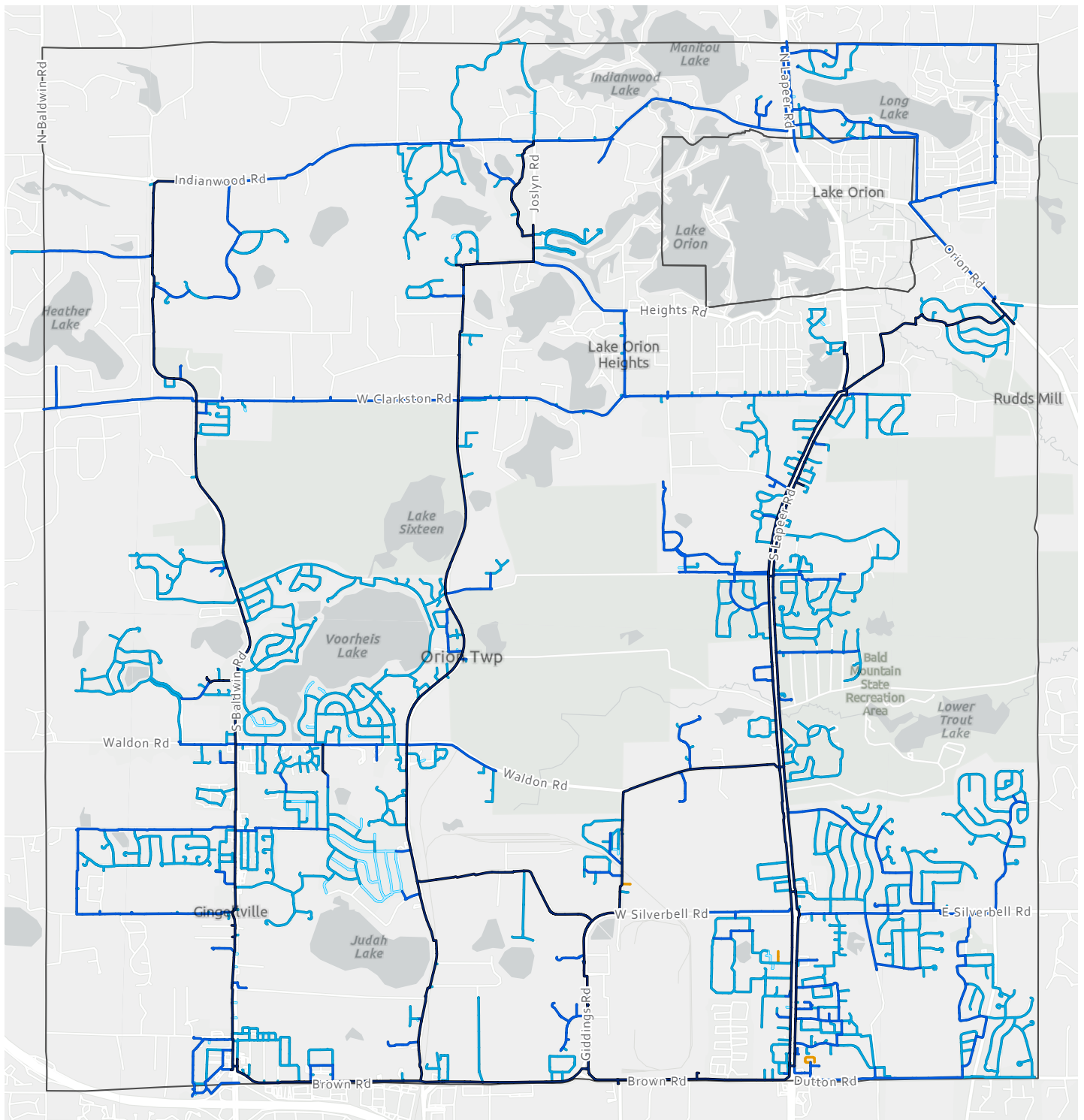
Above: The Orion Township water tower holds around 2.5 million gallons of water and is one of the largest in Michigan.

Source: Michigan Municipal League (2022)





## MAP 4: WATER DISTRIBUTION SYSTEM

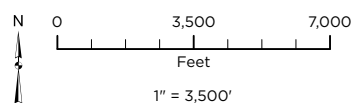


### Water Main Diameter

- 4"-6"  
— 8"  
— 12"-14"  
— 16"-24"  
— Data Not Available

## Water Distribution System

ORION TOWNSHIP



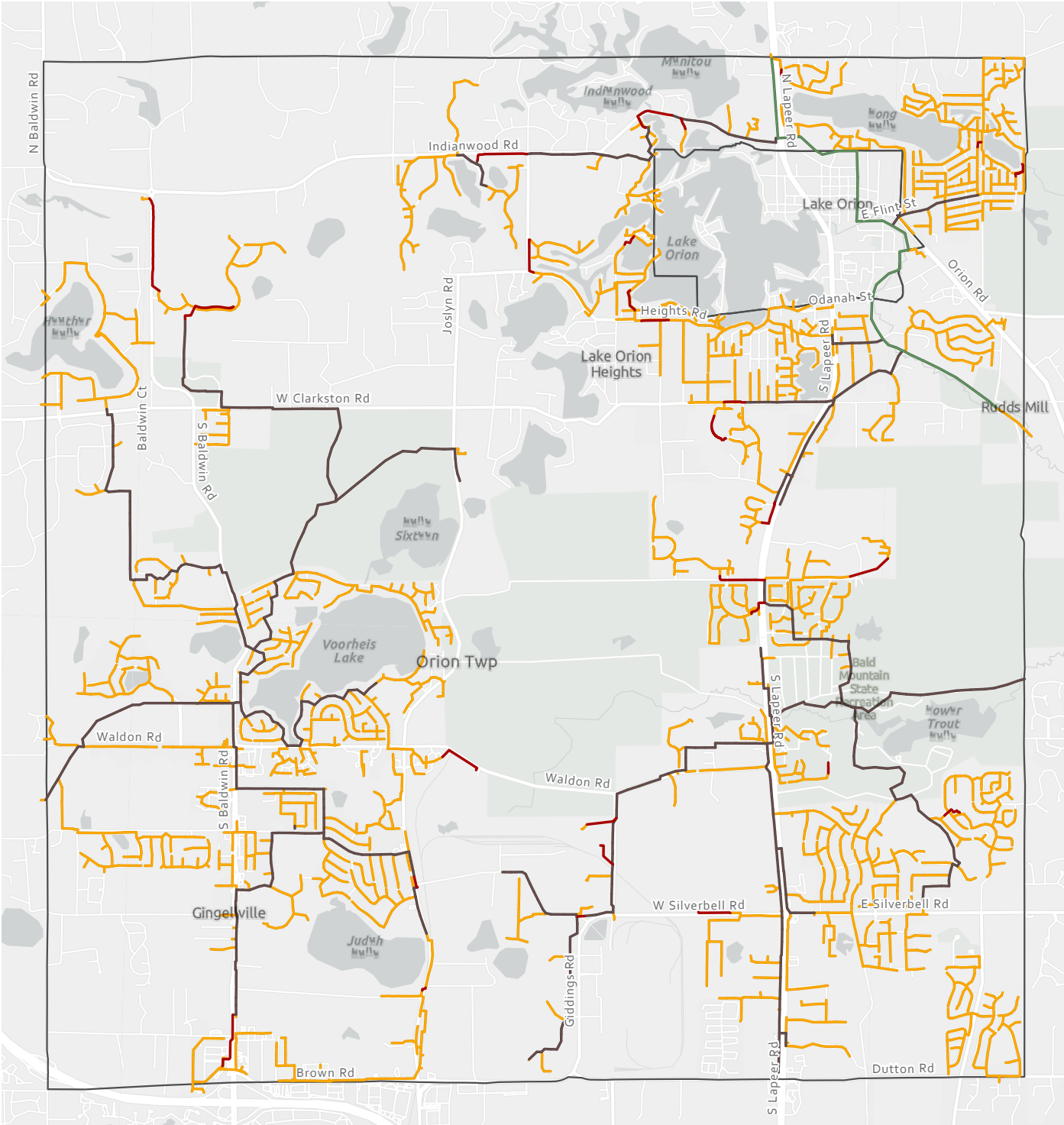
**Source:** Data provided by Orion Township. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

**Coordinate System:** NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl

**Map Published:** April 27, 2021



MAP 5: SANITARY COLLECTION SYSTEM

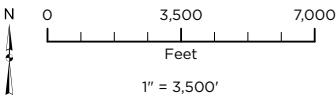


Sanitary Sewer

- Collector
- Interceptor
- Trunk
- Force Main

Sanitary Collection System

ORION TOWNSHIP

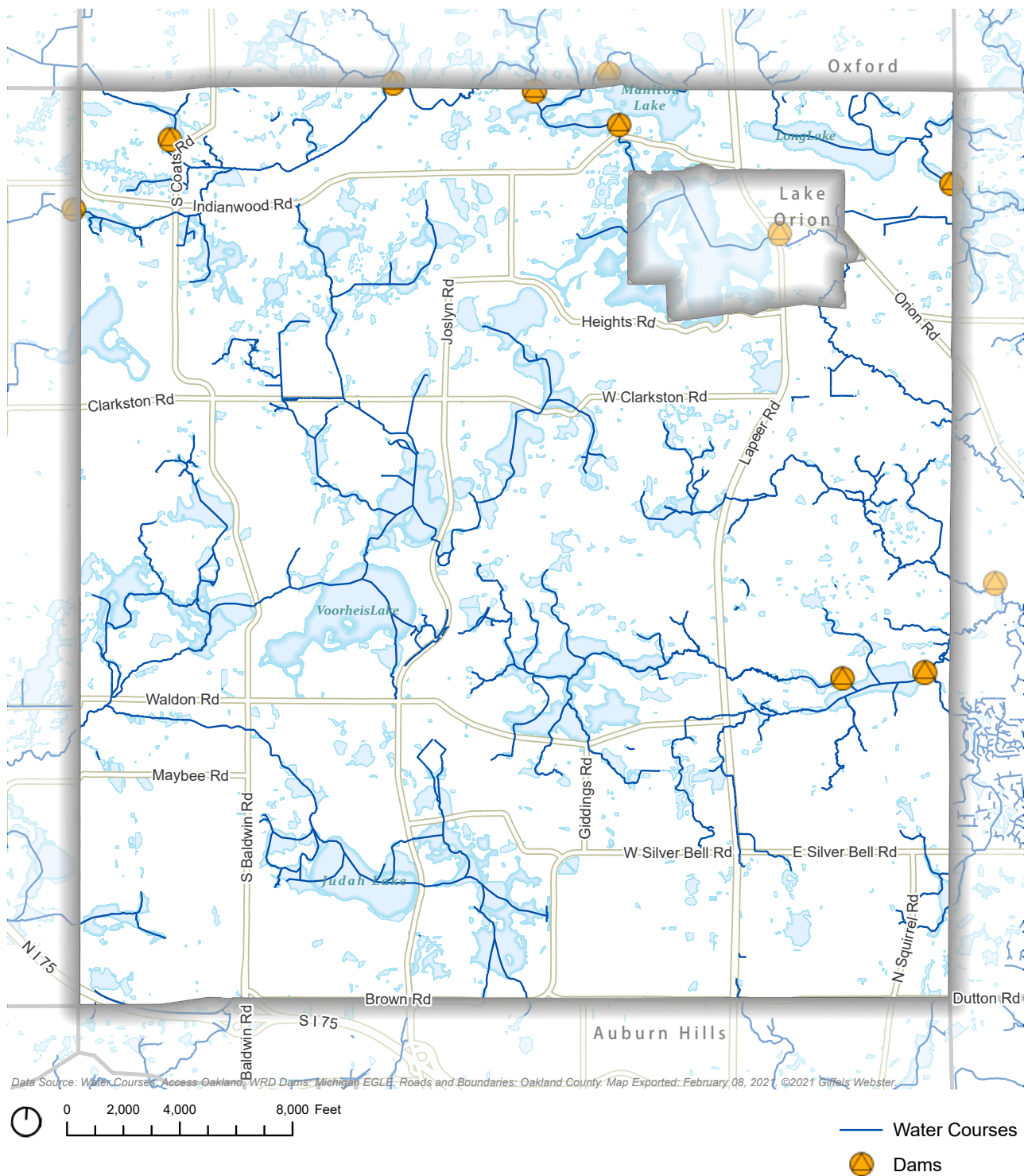


Source: Data provided by Orion Township. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl  
Map Published: April 27, 2021



MAP 6: DRAINS



Data Source: Water Courses: Access Oakland; WRD Dams: Michigan EGLE; Roads and Boundaries: Oakland County. Map Exported: February 08, 2021. ©2021 Giffels Webster.



0 2,000 4,000 8,000 Feet





## 2019 Parks and Recreation Master Plan

The 2019 to 2023 Orion Township Parks and Recreation 5-Year Master Plan includes a complete parkland and facility inventory for the Township. This inventory includes 19 Township recreation sites, which include parks, nature areas, schools, and other properties. The inventory also includes Orion Oaks County Park, Bald Mountain State Recreation Area, and three public boating access sites. Important facilities in the Township include inclusive play structures at Friendship Park, Miracle Field, Fire Bowl at Camp Agawam, and the KaBoom! playground. For more information, go to <https://www.orionparks.com/>

### Camp Agawam

Camp Agawam is the Township's largest property and was recently recognized as a state campsite for bikers. This 140 acres property is nestled along the east side of Tommy's Lake with an access point to the water for swimming and catch-and-release fishing. It was purchased in 2014 and until then it was operated by the Boy Scouts of America, so most of its features are centered on camping and group recreation such as cabins, fire pits, pavilions, lodges, and an outdoor auditorium. The buildings and sites are scattered across the property and connected mainly by natural trails that are not accessible to cars. It is the Township's most rustic recreational property with great potential to serve the community and the region. The site's facilities are also available to rent for large and small events. Most of the site is left in its natural state which makes the terrain difficult



Camp Agawam (Source: Giffels Webster 2020)



Fire Bowl at Camp Agawam (Source: Orion Township)

to cross. However, there are two major developments that are fully accessible for all levels of mobility: the KaBoom! playground and the walking trail that leads to the fishing dock.

### Orion Center

The Orion Center was built in 2011 on Joslyn Road in the heart of Orion Township. On this 11-acre property, the Parks and Recreation Department is housed and much of the recreation and 50 and better programming takes place. It serves as a convenient meeting point to initiate off-site excursions. From this property, there is access to the Polly Ann Trail. Both indoor and outdoor facilities are available for rent. Inside, many rooms feature flat screen TVs, tables and chairs, good lighting, and serve a particular function for classes and programming. The back patio has picnic tables that are covered by umbrellas as well as a gazebo. The building was built with accessibility in mind. Getting into the building can be done with ease, and once inside there is an elevator and handicap accessible restrooms. The Senior Services Division provides a network, events, classes, and resources geared to help both residents and non-residents aged 50 and over. Membership for 50+ adults is free at the Orion Center and hosts a range of social and educational clubs and programming for its members.

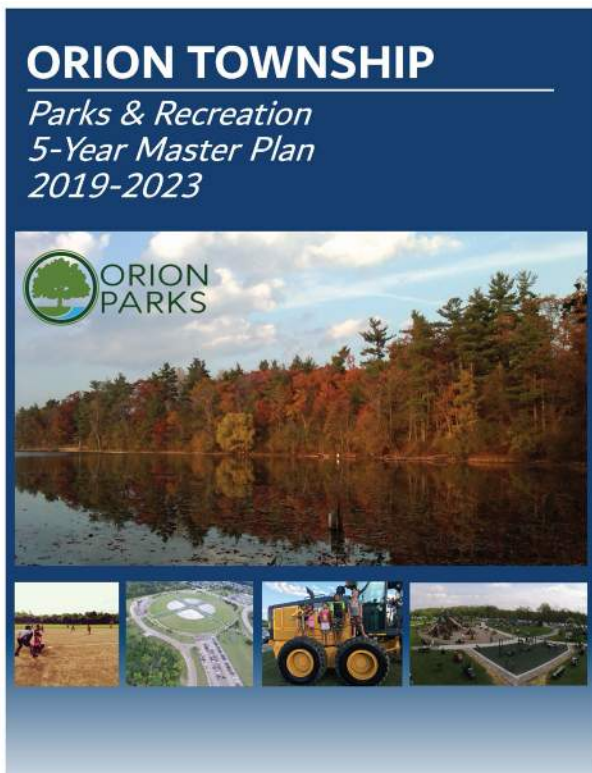


Orion Center (Source: Giffels Webster 2020)



Specific facilities addressed within the parkland and facility inventory include the following which are referenced within this Master Plan Update due to their importance related to planning (from 2019 Parks and Recreation Master Plan):

1. Jesse Decker Park
2. Civic Center Park and Wildwood Amphitheater
3. Friendship Park
4. Camp Agawam
5. Orion Center



### Jesse Decker Park

Jesse Decker Park is a corner park located at the intersection of Squirrel and Silverbell Roads, directly across from a residential subdivision. Built in 2009, it is a little larger than a “neighborhood park,” but its short distance to a neighborhood means it likely serves a smaller population than Friendship and Civic Center Parks, even with similar facilities. In a smaller space, the park still manages to provide ample active and passive spaces. Its hilly terrain gives it a unique feature: a sledding hill. Using the park’s natural features to keep the park in use during the winter is a bonus for the neighbors and the Parks and Recreation Department.

### Civic Center Park & Wildwood Amphitheater

As the name implies, this park is situated in the Township’s Civic Center. Adjacent to the (1974) old Township Hall and just down the road from the Orion Center, its central location and versatile facilities make it a highly-frequented park. Its size and the variety of activities it provides makes it a popular site for social gatherings in the pavilion and sporting events on its varying types of athletic fields. The Wildwood amphitheater was built since the last Parks and Recreation Plan was completed in 2014. Located within Civic Center Park, it is home to several outdoor cultural events. In the summer, the amphitheater hosts weekly free concerts, in addition to music and film festivals and other public events. It is also available to rent for private events.

### Friendship Park

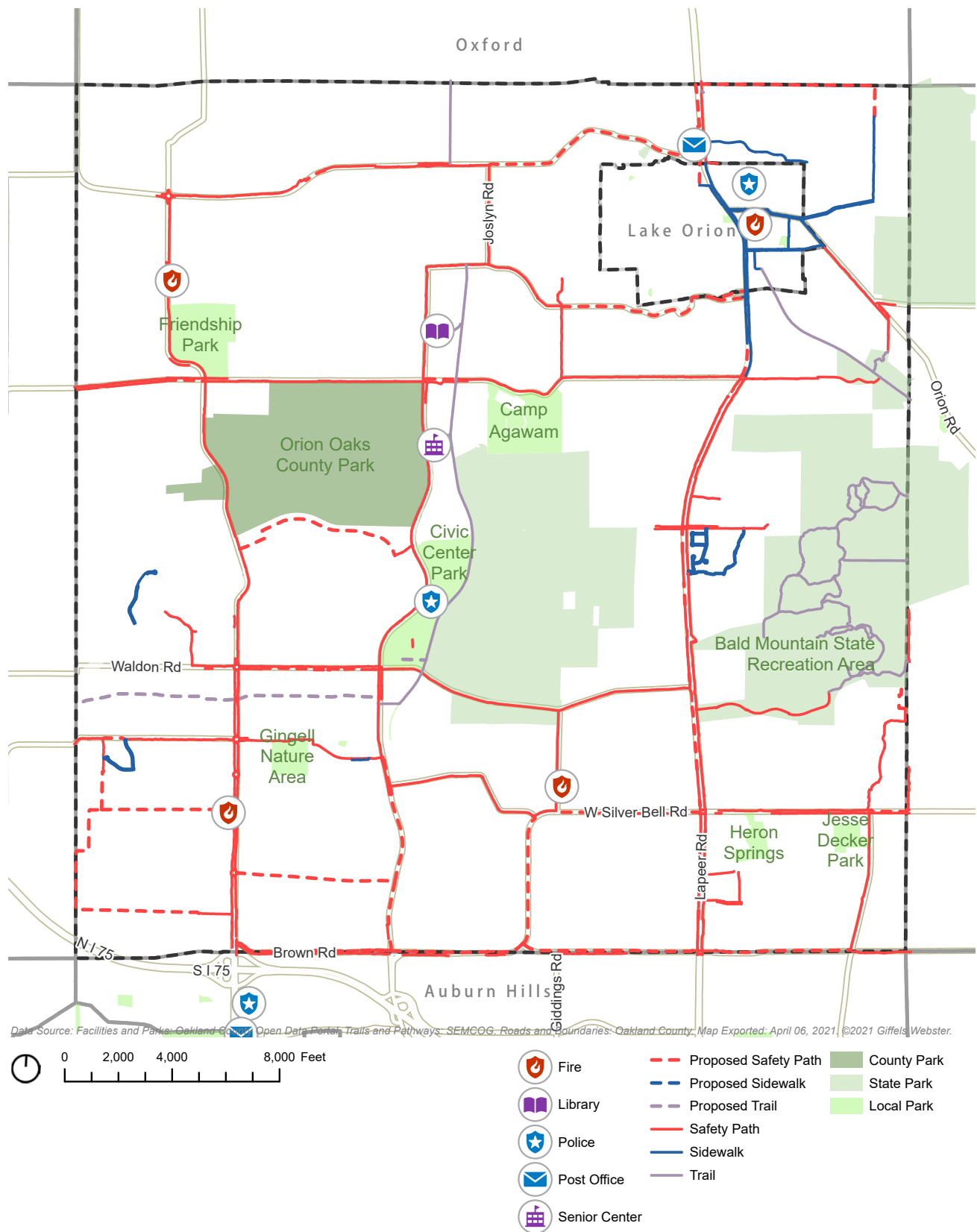
Friendship Park is the Township’s second largest park, behind the recently acquired Camp Agawam. Located in the northwest portion of the Township along Clarkston and Baldwin Roads, and covering about 135 acres, this is a well-used, all-purpose park. The park provides ample space for organized sports leagues, other active recreation on the play structures, and passive spaces where visitors can relax under a shaded pavilion or fish at the beautifully landscaped catch and release pond. The meeting room is one of two facilities in the park system where visitors can enjoy indoor space for events, making this a valuable year-round space. The park features a playscape designed exclusively for individuals with special needs. The swings are accessible for children in wheelchairs, and the smooth surfacing serves wide-ranging mobility needs. In addition, Friendship Park features Miracle Field, a fully accessible baseball field.



Miracle Field at Friendship Park (Source: Orion Township)



MAP 7: COMMUNITY FACILITIES





## National Functional Classification

The Transportation Plan presented on the following page lists the hierarchy of transportation routes based upon the National Functional Classification (NFC) System. NFC is a planning tool which has been used by federal, state and local transportation agencies since the late 1960s. Functional classifications are used to group streets and highways into classes, or systems, according to the character of traffic service they are intended to provide. The NFC designation also determines whether a road is eligible for federal funds, either as part of the National Highway System (usually limited to principal arterials) or through the Surface Transportation Program. Federal-aid roads are, collectively: all principal arterials, all minor arterials, all urban collectors and all rural major collectors. (Source: MDOT)

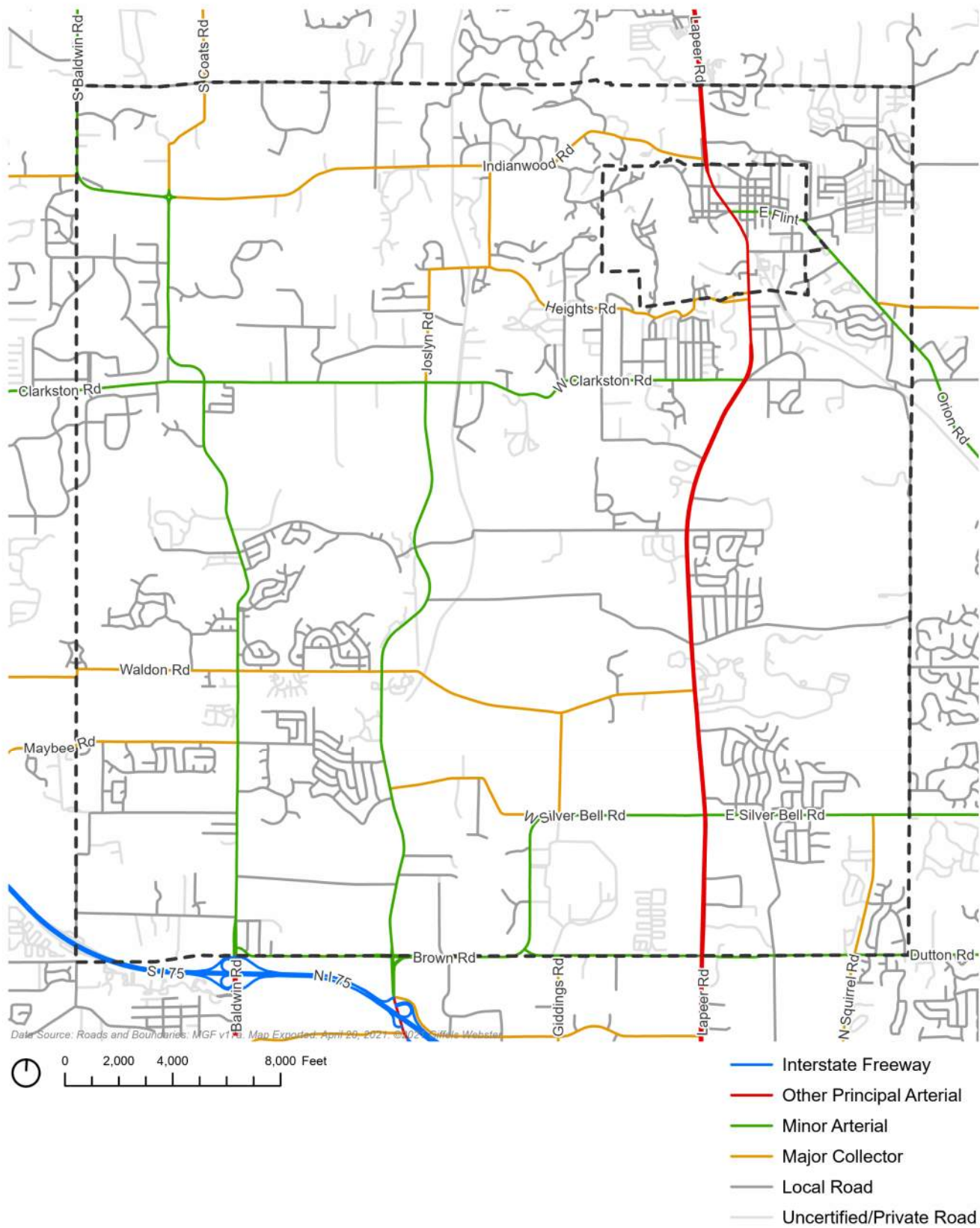
- **Principal Arterials.** These roadways are at the top of the classification hierarchy. The primary function of such roadways is to carry relatively long distance, through-travel movements. Examples include interstates and other freeways as well as state routes between larger cities.
- **Minor Arterials.** Minor Arterials tend to accommodate slightly shorter trips than principal arterials. There is some emphasis on land access and they may carry local bus routes and provide intra-community continuity, but do not penetrate neighborhoods.
- **Major Collectors.** Major collectors provide access and mobility within residential, commercial, or industrial use and connect local roads to arterials. Major collectors generally carry more traffic than minor collectors.
- **Minor Collectors.** Minor collectors also provide access amongst varying land uses, but generally have less traffic than Major Collectors.
- **Local Roads.** Local Roads provide access to individual properties and typically have moderate to low speeds. The majority of Township roads are classified as local roads.

### Natural Beauty Roads

Certain roads in Orion Township are classified as Natural Beauty Roads, in accordance with Michigan Act 150 of 1970. The goal of the Natural Beauty Roads Act is to identify and preserve designated roads in a natural, essentially undisturbed condition. Roads considered eligible for this designation are county local roads that have unusual or outstanding natural beauty by virtue of native vegetation or other natural features. Widening, mowing, spraying and other maintenance or improvement activities may be restricted or prohibited on designated Natural Beauty Roads. Natural Beauty Roads in Orion Township include:

- Kern Road from Orion Road south to Clarkston Road
- Clarkston Road from 1,000 feet west of the south leg of Kern Road to the north leg of Kern Road
- Nakomis Road north of Cayuga, almost to the Township line
- Greenshield Road

MAP 8: NATIONAL FUNCTIONAL CLASSIFICATION





A scenic landscape photograph of a calm lake. On the left, a large, mature weeping tree with dense green foliage stands prominently. The lake's surface is still, reflecting the sky and the surrounding greenery. In the background, a row of white houses with dark roofs is nestled among a variety of trees, some of which are showing early autumn colors of yellow and orange. The foreground is filled with tall, thin reeds and grasses, some with small yellow flowers, partially obscuring the view of the water. A dark green rectangular banner is positioned in the upper right corner, containing the word "Environment" in white text.

# Environment



# Natural Features

Many residents have settled in Orion Township because they have been attracted by its natural features, such as lakes, wetlands, woodlands, rolling topography, and open spaces. These features are significant not only because of their strong appeal to residents, but also because they constitute a functioning ecosystem that has been largely unspoiled by human activity. While there are many opportunities for enjoyment and utilization of the natural resource base, particular features of the natural environment are incapable of supporting development or are of sufficient significance to be preserved. It is helpful to examine the various natural resource factors in detail to determine the opportunities and constraints for development, as well as to weigh the value of preservation. Sound land use depends on a keen awareness of the Township's natural features. Accordingly, key natural features are highlighted in the text and maps which are included within this document.

## Land

### Wetlands and Floodplains

Wetlands are a significant component in the water resources system. The term “wetlands” encompasses a variety of ecosystem types, which are classified by the depth of the water and the typical vegetation that grows in each. Examples in the Township include inland marshes, wet meadows, mudflats, ponds, bogs, bottom-land hardwood forests, and wooded swamps. The Township contains approximately 500 acres of emergent wetlands (marshes), over 2,000 acres of forested wetlands, and almost 1,500 acres of scrub-shrub wetlands, for a total of 17% of the Township's land area (not including lakes). Most of these wetlands are adjacent to lakes or streams.

Wetlands play an important role in controlling flooding and treating polluted stormwater runoff to improve water quality. During storm events, wetlands hold runoff and release it slowly to adjacent streams and lakes, which helps to reduce “flashy flows” and reduce stream bank erosion. During wet periods, the wetlands absorb water, thereby reducing shoreline flooding around lakes. During dry periods, the wetlands release water to the lakes to help maintain lake levels. Wetlands also help to maintain water quality by filtering sediment and pollutants before they reach the lakes and streams. Wetlands contribute significantly to the rural character of the community by providing critical wildlife habitat.

Wetlands attract and retain many species of animals, birds, and other wildlife by providing a source of water, nesting, and feeding habitat. In turn, residents often identify the vegetation and animal life characteristically found in wetland areas as bringing a rural feeling to the community. Certain wetlands are unique, “high-value” ecological areas that should be identified and preserved. Excess stormwater flows should not be directed toward such wetlands that have special ecological significance. In addition, any wetland that is used for stormwater detention should only receive treated stormwater, and not in volumes greater than it receives under predevelopment conditions. See Map 10 for wetlands and flood hazard areas and see Appendix A for Priority Conservation Areas.



In accordance with the State law, wetlands are regulated by the Michigan Department of Environment, Great Lakes and Energy (EGLE) if they are any of the following:

- Connected to one of the Great Lakes or Lake St. Clair.
- Located within 1,000 feet of one of the Great Lakes or Lake St. Clair.
- Connected to an inland lake, pond, river, or stream.
- Located within 500 feet of an inland lake, pond, river or stream.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, but are more than 5 acres in size.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, and less than 5 acres in size, but EGLE has determined that these wetlands are essential to the preservation of the state's natural resources and has notified the property owner.
- In addition, Orion Township Ordinance No. 107 provides for the local regulation of certain wetlands greater than two acres in size.

## Woodlands

Tree stands and woodlands are another important component in Orion Township's natural resource inventory. Significant tree stands predominantly consist of hardwoods, evergreens, or lowland brush. Many of the significant tree stands are found in conjunction with other natural resource features, such as wetlands or steep slopes. For example, approximately 50% (2,000 acres) of the Township's wetlands are wooded. The Bald Mountain Recreation Area and Orion Oaks County Park contain hundreds of acres of heavily wooded land. Three of the Township's four designated Natural Beauty Roads, Clarkston Road, Kern Road and Greenshield Road, are located on the east side of the Township and intersect a densely forested area.

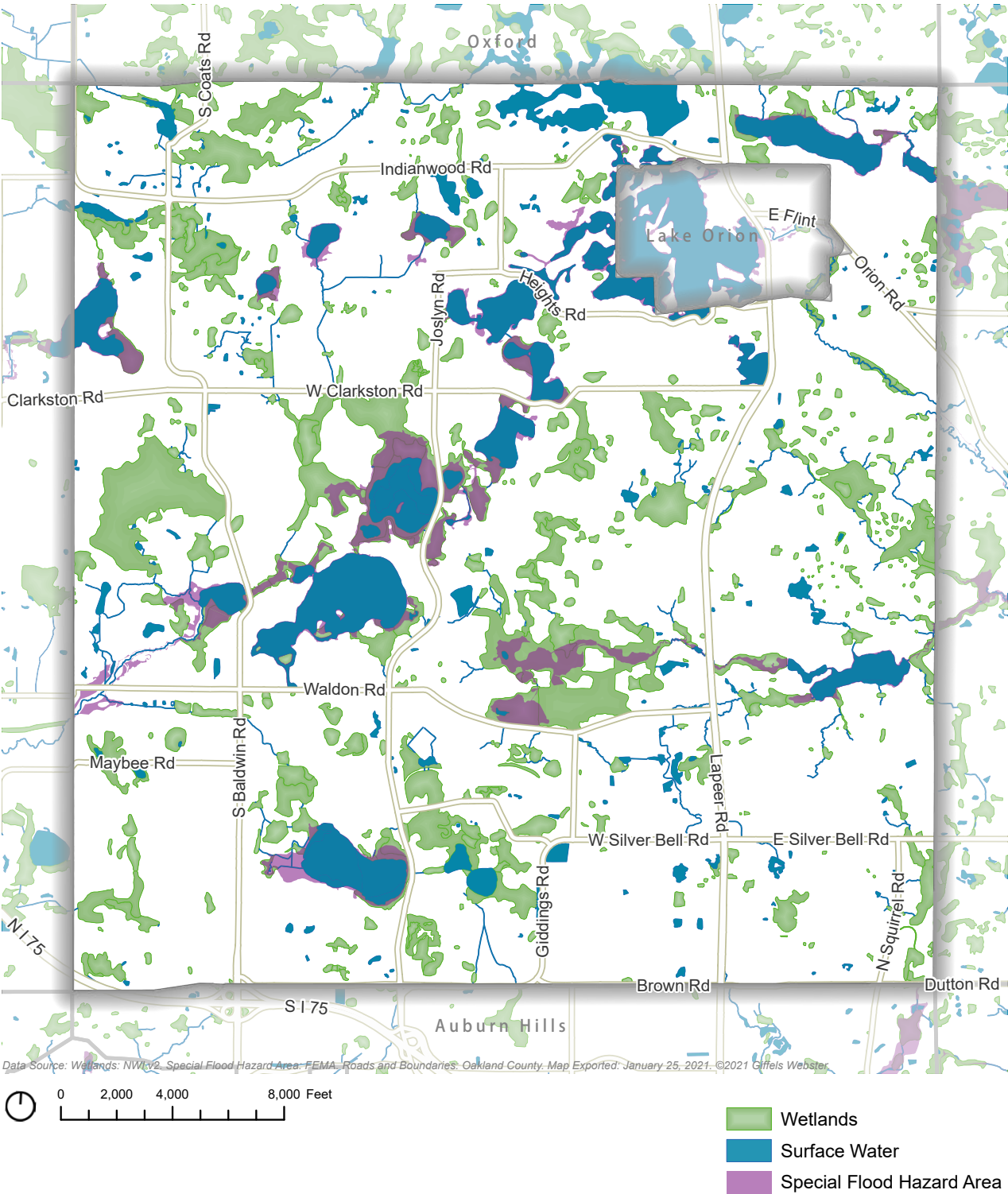


Above: Clarkston Road is a designated natural beauty road within the Township, in part due to its outstanding vegetative features.

Source: Giffels Webster (2021)

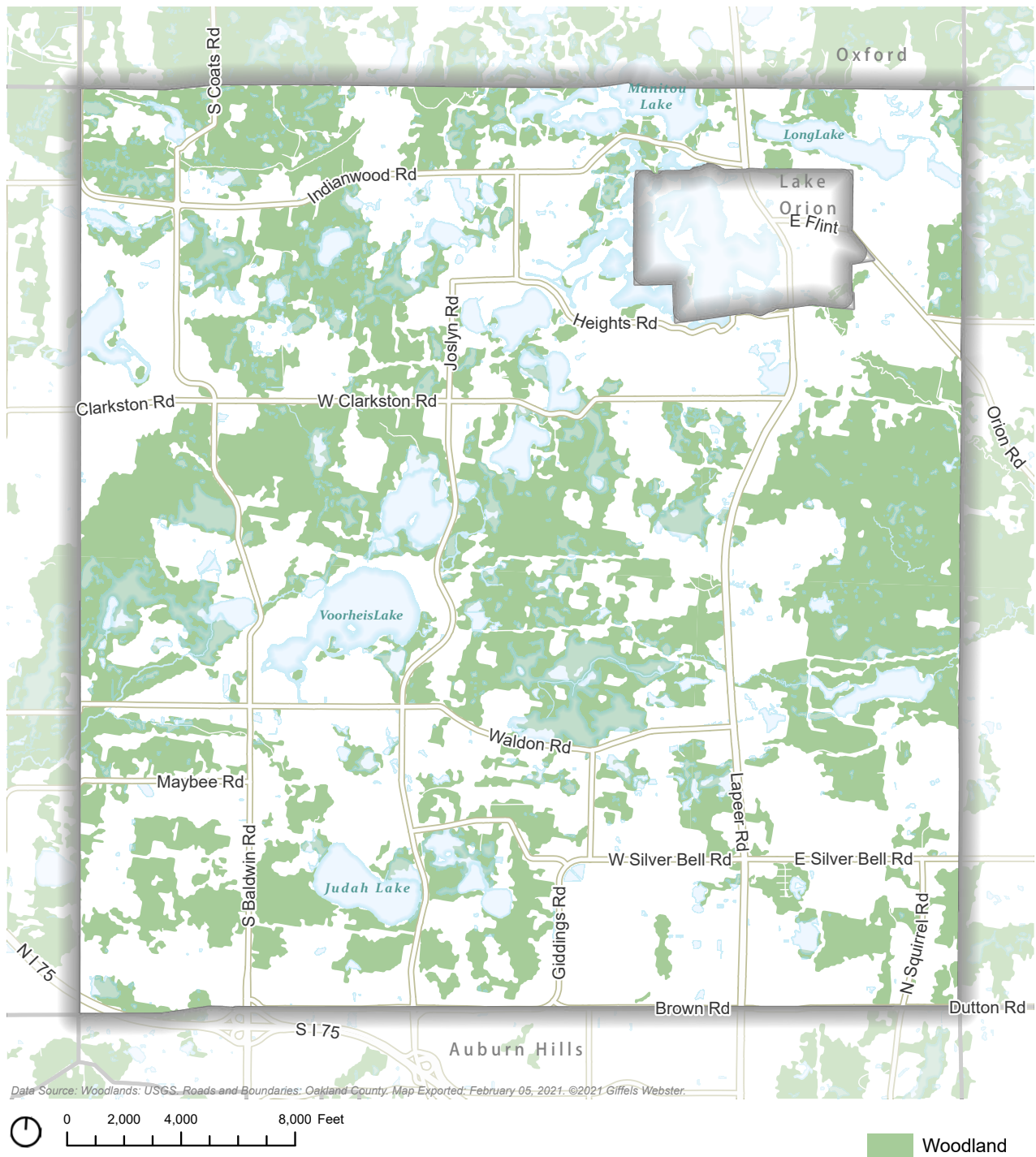


MAP 9: WETLANDS AND SPECIAL FLOOD HAZARD AREAS





MAP 10: WOODLANDS



## Water

Over the years, the prime residential developments in Orion Township have been built around the Township's many lakes. Most residents appreciate the recreational or scenic value of the lakes. However, the lakes represent only one component of the community's extensive, inter-connected water system that also includes streams, wetlands and groundwater. The water system provides significant benefits for current and future residents of the Township, such as a source of drinking water, stormwater attenuation, water filtration and storage, and aesthetic and recreational benefits.

### Watersheds

Orion Township is wholly located within the Clinton River Watershed. The Township's entire land area ultimately drains to the Clinton River, which subsequently drains into Lake St. Clair. Within the Township, the Clinton River Watershed is broken down into stream-based watersheds, which include the Upper Clinton Watershed, the Stony/Paint Watershed, and the Clinton-Main Watershed. The watershed divisions were identified to facilitate the work the Township has been doing to comply with the Clean Water Act's Phase II requirements for regulating stormwater. Since 2002, the Township has participated in watershed planning activities to obtain a stormwater permit from the state through the National Pollutant Discharge Elimination System (NPDES). Because Orion Township is located in three stream watersheds, they participate in three watershed groups to draft and implement watershed management plans for each. While each plan is unique, an analysis of the various watersheds revealed similar conclusions. In general, the streams and lakes within Orion Township have fairly good water quality and support aquatic organisms typically found within urbanizing areas. There are several areas of concern:

- Square Lake (in the Upper Clinton Watershed), has problems with excessive algae and other plant growth. This may be due to fertilizers washing from lawns into the lake, waterfowl feces, or failing septic systems.
- Many streams and lakes are impacted by sediments flowing in from gravel roads, construction sites, or "flashy flows" that deposit sediments due to stream bank erosion.

- Streams are becoming more "flashy," or experiencing increased stream flows following storms. This is due to increases in impervious surfaces which keeps storm water from naturally infiltrating the ground and increases in storm intensity. Therefore, more water is reaching the streams (increased volume, runoff), faster.

### Lakes

There are 42 natural lakes over five acres in size, covering about 8% (1,700 acres) of the total area of the Township. Many of the lakes are large enough for boating, fishing, swimming, and other water-oriented activities. Most of the major lakes are surrounded by residentially-developed land. Certain lakes have public access, including Lake Orion and Lower Trout Lake, which is located in the Bald Mountain Recreation Area. Lake Sixteen, located within the Orion Oaks County Park, has restricted access from Joslyn Road and from within the park itself. Orion Township's lake also serve an important function as a natural stormwater detention system.

### Lake Boards

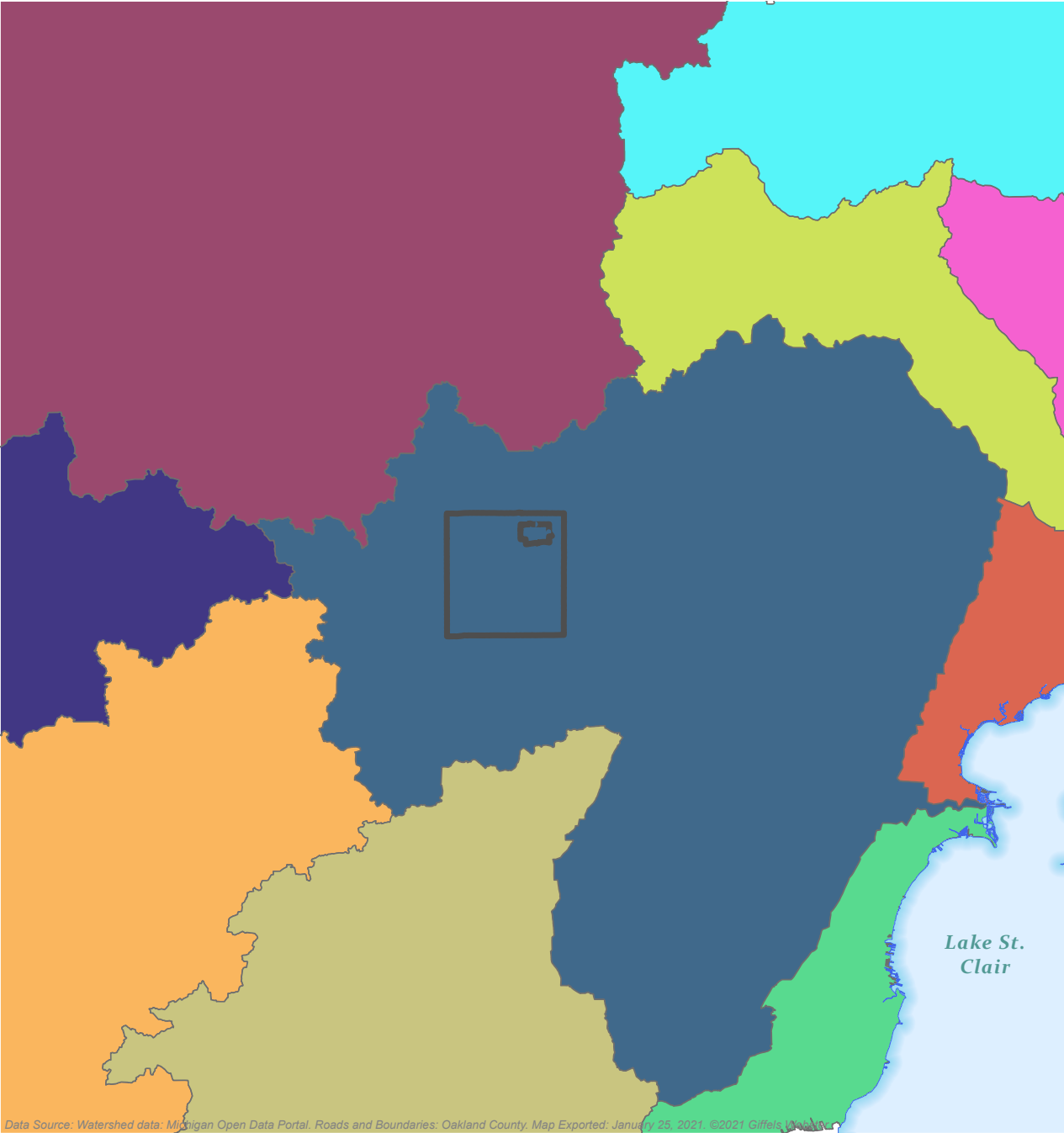
Lake Boards can be created around any inland lake, and can cross municipal boundaries. Their most crucial power is the ability to create special assessment districts, which can raise money from lakefront property owners for lake protection and improvements. By creating an authority, with its own funding source, dedicated to protecting the lake, residents can take preservation or protection into their own hands.

### Natural Shoreline Dynamics

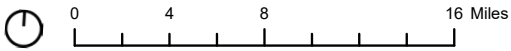
Runoff is one of the primary concerns regarding the shoreline dynamics and water quality of inland lakes. Runoff can carry fertilizer and other undesirable substances into the water, some of which can cause an overgrowth of aquatic plants and alter the natural ecosystems in these lakes. It is crucial to protect natural ecosystems by managing development on the shoreline and in the watersheds of inland lakes. Communities can create best practices to protect inland lakes from erosion and runoff damage by encouraging the use of permeable pavement and growing native plants along the shoreline and in the watershed.



MAP 11: WATERSHEDS



Data Source: Watershed data: Michigan Open Data Portal. Roads and Boundaries: Oakland County. Map Exported: January 25, 2021. ©2021 Giffels Webster



- |                    |                  |
|--------------------|------------------|
| Orion Township     | FLINT            |
| BELLE              | HURON            |
| BELLE (LAKE)       | PINE (ST. CLAIR) |
| BLACK (PORT HURON) | ROUGE            |
| CLINTON            | SHIAWASSEE       |
| CLINTON (LAKE)     |                  |

**giffels**  
**webster**

**Watersheds**  
**ORION TOWNSHIP**





## Invasive Species

*Phragmites australis*, is an invasive wetland grass that can grow up to fifteen (15) feet in height and spread between thirty (30) and fifty (50) feet per year. The invasive species has spread rapidly throughout Michigan's coastal and interior wetlands, threatening ecological health and reducing property values. Due to their aggressive growth rate and height, phragmites crowd out native wetland plants, reduce access to recreational areas, and block lakefront views. In addition, dry phragmites material is highly flammable and can create fire hazards.

While difficult to remove, invasive phragmites can be controlled through combined management techniques including the use of herbicides, mowing and prescribed fires. However, an MDEQ permit is required to treat phragmites using herbicides for most inland lakes and wetlands. Clear steps must be taken to properly rid an area of phragmites; improper removal techniques can actually increase the invasive species' rate of growth.

Orion Township and various other Michigan communities have enacted phragmites ordinances that address the control and removal of the invasive plant. Many of the example phragmites ordinances focus on removing the invasive plant along the shores of Lake Michigan. However, there are limited examples of ordinances that address the removal of phragmites from inland lakes and wetlands. Orion Township currently has a phragmites control program and holds a permit for application of approved chemicals. Herbicide treatment for phragmites usually occurs before the first frost of the year, in September or October.



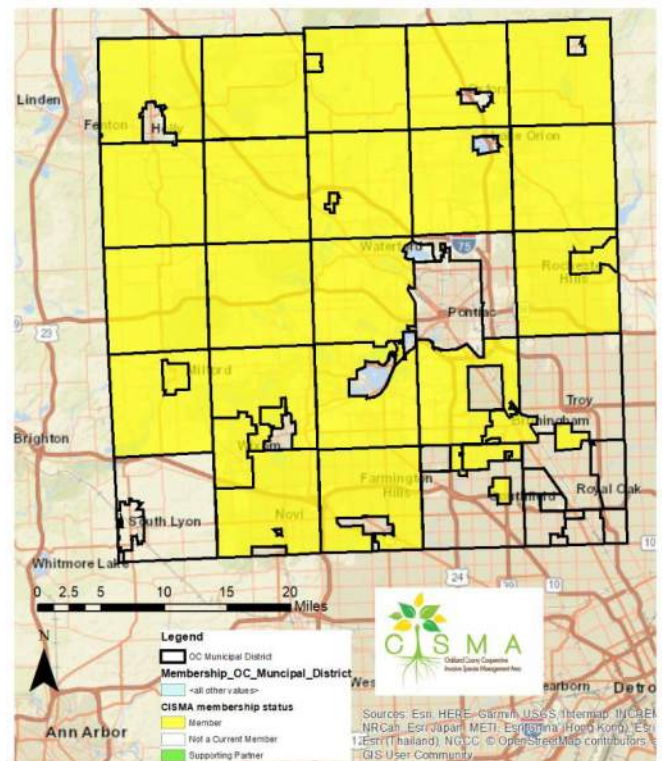
Above: Phragmites grow along the edge of Elkhorn Lake.

Source: Google (2019)

### Oakland County Cooperative Invasive Species Management Area (CISMA)

The Oakland County Cooperative Invasive Species Management Area (CISMA) was established in December 2014 by 19 partners. Today the partnership has grown to over 40 members including local governments, county governments, non-profit organizations, and universities.

The cooperative is focused on managing the spread of eight priority invasive species including: invasive Phragmites (common reed), Black and Pale Swallow-worts, Knotweeds, European frog-bit, Flowering rush and Red swamp crayfish. Members also have extensive experience managing other common invasive plants such as Buckthorns, Autumn olive, Garlic mustard, Asian bittersweet, and Purple loosestrife. (Text source: [oaklandinvasivespecies.org](http://oaklandinvasivespecies.org))



Above: Current Oakland County CISMA members

Source: [oaklandinvasivespecies.org](http://oaklandinvasivespecies.org) (2022)



## Michigan Natural Feature Inventory

The Michigan Natural Features Inventory (MNFI) maintains a continuously updated information base, of Michigan's endangered, threatened, or special concern plant and animal species, natural communities, and other natural features. MNFI has responsibility for inventorying and tracking the State's rarest species and exceptional examples of the whole array of natural communities. MNFI also provides information to resource managers for many types of permit application regarding these elements of diversity.

In July of 2002, the Oakland County Planning and Economic Development Services Department worked with MNFI to identify potential conservation/natural areas within the County. The conclusions of the study were the identification of high, medium and low-ranking areas within each municipality. These rankings are based upon a set of criteria that include size, core area, street corridor, landscape connectivity, restorability and element occurrence.

Based upon the updated study in 2017, Orion Township has five (5) areas identified as priority one (highest ranking), numerous smaller areas ranked as priority two (medium ranking) and the open water/wetland areas identified as priority three (lowest ranking). See the Priority Conservation Areas map in Appendix A.



Above: Wild turkey seen along Judah Road

Source: Giffels Webster (2021)

Portions of this area maybe lost to development, but the preservation of the remaining areas and their associated links to other natural resource sites may be preserved through various land use controls and preservation plan alternatives. To implement the green infrastructure plan, and better integrate ecological systems into development, the following techniques should be considered:

1. Encourage the use of the cluster development on parcels where sensitive ecosystems exist. This technique places roads, lots, and other development on land that is most capable of supporting it, and places the sensitive natural features in commonly-owned open space. The proposed Corridor Open Space Preservation District, which would allow for some lot size flexibility in exchange for preserving open space along corridors, will also assist in this effort.
2. Create a detailed program to implement the green infrastructure plan, including goals & policies, priorities, action items, schedule, and funding mechanisms.
3. Continue to work towards reduction of impervious surfaces and increases in stormwater infiltration through local, county and state regulations, as well as working with developers during the site plan review process.
4. Enhance the natural feature setback/buffer regulations by allowing a flexible width buffer (larger for more sensitive features, smaller for less sensitive features) rather than a standard distance to help manage development near stream corridors and provide floodplain protection.
5. Adopt native vegetation guidelines that preserve native plants and encourage the use of native plants in landscaping. These plants are particularly helpful in riparian buffers to treat stormwater runoff and provide wildlife corridor links within the Township's green infrastructure system. The State of Michigan defines riparian rights as "those rights which are associated with the ownership of the bank or shore of an inland lake or stream". These guidelines could be enhanced by an ordinance that prohibits the use of exotic invasive plant species in landscaping, and supplemented by additional invasive species ordinances, such as a phragmites ordinance. These plants tend to take over natural areas and out-compete native species.

## Environmental Resources Recommendations

The Paint Creek watershed and other tributaries in the Township are recognized as sensitive environmental features. These water courses and their accompanying watershed areas are indispensable and fragile resources that provide public benefits including maintenance of surface and groundwater quality, fish and wildlife habitat, stormwater run-off control, and aesthetic resources. It is inappropriate to consider these fragile resource areas for high or suburban density development. Smaller lots within these areas can degrade natural resources. Clear-cutting, dredging, filling, and other activities associated with higher density development can be harmful to natural systems. It is therefore recommended that areas within close proximity of streams, lakes, and watercourses and without public water and sanitary sewers be reserved for low density development.

Natural features play a vital role in the health of Township residents and the natural systems of the Township. Overall density and lot size should be closely related to natural features. In general, the Township may consider larger lots for environmentally sensitive areas and smaller or moderate size lots in areas more suitable for denser development. It is recognized that large lots are not always a guarantee of environmental preservation.

1. Large lots consume more land and may diminish local control of wetlands, woodlands, or other environmental features. In general, however, large lot developments have the potential to create fewer environmental impacts.
2. Small lots or cluster residential developments may be sensitively planned to preserve natural features and may be more appropriate than some large lot developments.
3. The enforcement of the Township Wetlands Protection Ordinance, Stormwater Management Ordinance and Woodlands Regulations, provided they are constantly evaluated for accuracy, can help maintain the natural resources within areas planned for higher density development.
4. Orion Township should continue to enforce its phragmites ordinance (No. 151) that addresses the control and removal of invasive phragmites from areas adjacent to inland lakes, wetlands and drainage areas

### Mitigating Risks

The Township has an Environmental Resource Committee that is established to communicate with, advise, and make recommendations to the designated Orion Township employee responsible for website information and /or the Board regarding community concerns on solid waste removal, curbside recycling, hazardous waste disposal, and review other Ordinances with content regarding environmental issues



# Sustainability & Resiliency

It is becoming critical to include concepts of resiliency and sustainability into land use plans. Though they are related, resiliency and sustainability are not the same.



**Sustainability** is the well-established concept that focuses on decreasing or eliminating the detrimental future impacts of our current activity.



**Resiliency** recognizes that our built environment will be subject to stresses and is the practice of designing that environment in a way that can endure those stresses. Some threats are ongoing, persistent stresses, while others are sudden shocks or single events that disrupt the day-to-day functioning of the community.

As we plan for the future, many of the challenges we will face are related either directly or indirectly to our place in larger systems, both natural and man-made. We often have little direct local control over these systems, but adapting to change and discovering our role in contributing to the health of these systems is nonetheless essential to planning for a community that can survive and thrive even in the face of the most severe challenges. Resilient communities are not only preparing for weather and climate-related shocks, but are also preparing for economic and health shocks as well. In 2020, we saw the impacts of a global pandemic on local community health, education, recreation, commerce, technology and social connectivity. These impacts touched everyone's lives in big and small ways and may have lasting impacts in our communities.

## Effects of Climate Change

A changing climate has far-reaching implications for Michigan's agricultural and tourism economies, waterfront development, and communities with older stormwater management infrastructure. Locally, within the last decade, Oakland County has experienced multiple heavy rain events that have led to property damage and decreased mobility and must anticipate that more flooding will occur in the future, damaging property, impairing access to parts of the Township, and creating financial distress for local residents and businesses.

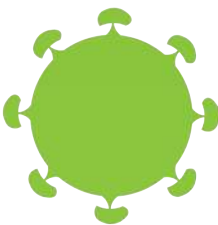
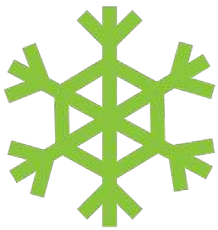
As the frequency and intensity of severe weather events continues to increase, communities will experience economic disruption. For instance, while the frost-free season has nominally increased, farmers in many of Michigan's agricultural communities have not benefited in recent years due to abnormally late frosts (such as those in mid-May, 2020) or heavy rain events, which have damaged early crops or delayed planting of late crops. Rising temperatures and more very hot days may affect the timing of summer festivals and tourism.

Communities must be prepared to anticipate the local effects of regional climate trends. According to the United States Environmental Protection Agency, climate change is already impacting many sectors of our communities. At a minimum, increases in air temperature and precipitation, combined with other factors, have caused impacts in the Great Lakes region including:

- Increased risk of heat-stress to equipment, infrastructure, and people, especially those who work outdoors or are otherwise vulnerable.
- Increased flooding and coastal erosion.
- Reduction in water quality due to increased occurrences of toxic algae blooms.
- Changes to the usability of water infrastructure like docks and piers.
- Economic impact to industries like forestry, fishing, crop production, tourism, manufacturing, energy production, and recreation.
- Expanded commercial navigation season as ice coverage continues to decline on the Great Lakes.



This Master Plan recognizes the importance of additional planning efforts needed to ensure the Township is resilient and sustainable. Future planning should include a public outreach process in two basic parts: education and input. Education includes making community members aware of potential threats and the process of planning for them, with an emphasis on outreach to the most vulnerable members of the community. The input process should offer the opportunity for residents and other stakeholders such as municipal staff and business owners to engage in detailed, focused conversations regarding resiliency planning issues. It is important for the community to engage in vigorous outreach through multiple channels to get people involved.



### Extreme heat

Average temperatures in the Great Lakes region rose 2.3 degrees Fahrenheit from 1951 through 2017. Extreme heat is dangerous for vulnerable populations and can also tax electrical infrastructure, leading to power outages, which in turn can increase the risk for the people most prone to succumbing to heat. Designating specific locations with backup power sources (such as municipal halls, libraries, and schools) as cooling stations can provide vulnerable residents with an essential escape from the heat. There may be a need to provide transportation to cooling stations for those with limited mobility options.

### Severe winter storms

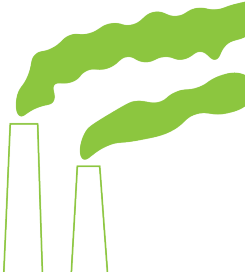
As temperatures rise, winter precipitation levels are anticipated to rise as well, and mixed precipitation events with more heavy ice may become more common. Severe winter storms can result in power outages, impeded mobility, damage to structures and trees, and lost economic productivity. Municipal costs for snow removal should be included in budget planning. While storms are the primary focus of future concern, communities also benefit from planning for extreme cold—locations designated as cooling stations in the summer can become warming stations in the winter.

### Heavy rain and flooding

Heavy rain events are already more common in Michigan than they were in the mid-to-late 20th Century, having increased by 35 percent from 1951 to 2017, as total annual precipitation increased by 14 percent. They are anticipated to become even more common in the future.

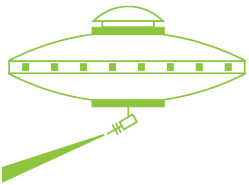
### Public health emergencies

The 2020 COVID-19 pandemic brought with it unprecedented economic disruption, forced short-term changes in social habits, destroyed numerous small businesses, and led to a very large increase in unemployment in a very short time period. Planning for public health emergencies needs to consider the many dimensions of the social fabric that are heavily impacted, including the availability of medical services, government's ability to continue functioning under quarantines or stay-at-home orders, and the locations and numbers of vulnerable populations. Local police, fire, and ambulance services may be particularly taxed in a future public health emergency.



### Damage to natural systems

Human activity is rarely in balance with the natural systems it occurs within. While resource extraction and pollution offer two very obvious examples of human activity, nearly all modern human development activity has some impact on natural systems, including loss of habitat, interruption of habitat, and increased emissions due to greater travel distances as development moves outward into wild places. A combination of rising temperatures and agricultural runoff that changes the nutrient balance in major water bodies has led to much higher frequency of toxic cyanobacteria and algae blooms, particularly in Lake Erie. These blooms can impair drinking water quality and limit recreational opportunities, including fishing and watersports.



### Unanticipated events

No community can plan for every possible future event or scenario. This is why developing resiliency, improving sustainability, understanding vulnerabilities, and identifying emergency resources is so important.



### Drought

We most frequently think of drought as a prolonged period without precipitation. While this kind of drought is certainly possible in the future in Michigan, the more likely effects of the changes the state is experiencing will be changes in seasonal distribution of storms with precipitation. Winter rainfall will become more common, snowpack overall may decrease, and stream levels will peak earlier in the year, affecting water availability and the timing of groundwater recharge. Drought is exacerbated by higher temperatures, which lead to increased evaporation rates; even with higher average rainfall, land may become drier, and as rain becomes less frequent in the hottest summer months, mid-summer drought could become a regular challenge. Dry conditions bring with them the possibility of wildfires, which are not uncommon in rural Michigan but could grow in scale and intensity in coming years. It is important to understand the community's water sources and how extended periods of drought might affect water availability.

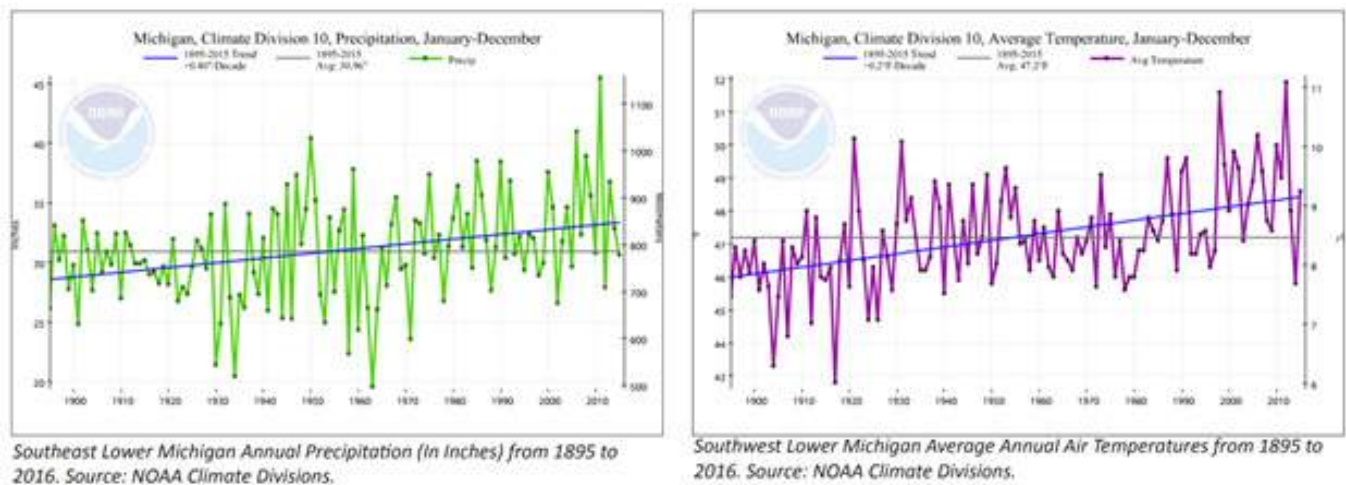


### Food systems

As the climate changes and weather patterns shift accordingly, planting and harvesting conditions become less predictable, and the potential for crop losses increases. In 2019, unusually heavy rains across much of Michigan made planting during the typical time difficult for many farmers. While the number of frost-free days has increased by an average of 16 days across the Great Lakes region from 1951 to 2017, the timing of those extra days has not uniformly added to the growing season. In recent years, unexpected late freezes after earlier-than-usual warm weather lead to the loss of large portions of fruit crops such as apples and cherries.



Regional climate trends indicate that southeast lower Michigan is poised to see stronger and more frequent storms, in addition to higher temperatures. The figure below shows how these two measures have been trending steadily over the last 100 years. With increasing precipitation, more frequent extreme heat days and an overall rise in average temperature, communities should be planning for what this mean locally and how their most venerable populations are situated to survive.



Southeast lower Michigan Annual Precipitation (left) and Average Annual Air Temperature (right) from 1895-2016

## Addressing Resiliency: Identifying Vulnerable Populations

Resilient communities anticipate likely shocks, understand trends in stressors, and prepare for potential worst-case scenarios. Understanding where a community is physically most vulnerable to specific events and understanding which members of the community are likely to be most vulnerable in each case is key to effective planning. Vulnerability assessments have been used across Michigan to identify vulnerabilities within a community and to develop tools communities can use to foster resiliency in their policy decisions. A vulnerability assessment looks at exposure to risk and sensitivity to risk.

**Exposure** demonstrates the land, property, and neighborhoods that are most likely to be impacted by flooding, heat, or other severe weather. Low lying land, land near bodies of water, areas with large swaths of pavement, neighborhoods with few trees, and sections with older homes all suffer from high levels of exposure.

**Evaluating exposure to risk asks:** where is the environmental risk the greatest?

**Sensitivity** demonstrates the members of the population that are most likely to be impacted by severe weather. The most sensitive populations are the elderly, young children, people with medical conditions, those living in poverty (especially the homeless) and people who work outdoors. People who live alone, regardless of their economic status, are also at higher risk

**Evaluating sensitivity to risk asks:** who in my community is most likely to experience the adverse effects from that risk?

Next to placing land into various zoning districts, site plan review is the most powerful planning and natural resource protection tool. Easily enforced, site plan review is a way for communities to ensure what is approved on a site plan is what will be built. When large projects are proposed or when small projects are proposed in or adjacent to sensitive natural resources, some communities require applicants to submit an environmental assessment, which details the impact of the proposed development on natural resources. Communities that have plans and zoning regulations based on a solid environmental inventory are able to set the threshold for future environmental assessments at a defensible level. Without such a basis, an environmental assessment may be considered arbitrary, as there is little context for the requirement. An environmental assessment can be a valuable source of information, and in some cases an important tool for ensuring that new development is designed in such a way that unavoidable environmental impacts are properly mitigated. Environmental assessment can also be viewed as an affirmative tool for helping a local government meet its responsibility for preventing pollution, impairment or destruction of the environment.

## Stormwater Management

The Township's existing water features play an important role in managing storm water. Several creeks and streams, which connect the Township's natural water system, meander through the Township, connecting lakes and wetlands with each other, and then conveying storm water run-off. As described in the referenced watershed management plans, the most prominent streams in the Township are Paint Creek, Clear Creek, Trout Creek and Sashabaw Creek. These creeks have flowing water throughout most of the year and are valued because of their ecological, aesthetic and recreational benefits. Implementing, updating and enforcing a stormwater management ordinance is essential to ensuring the necessary infrastructure is in place to protect the natural assets and health of the community.



Above: Flooding can lead to dangerous and sometimes impassible road conditions, as seen here along Clarkston Road. It is important to understand what vulnerable populations may be affected by extreme weather events for emergency service and disaster mitigation planning.

Source: Giffels Webster (2021)



## Impervious Surfaces

Because development replaces pervious ground with impervious pavement and buildings, water runs off the surface rather than permeating naturally through the ground. As stormwater drains across pavement, it picks up pollutants such as automobile fluids, fertilizers, and sediment and conveys them into a storm drain. If a storm drain is directly connected to a creek, the creek receives polluted water which, in turn, can degrade water quality and wildlife habitat. This, in turn, degrades streams and water quality unless managed in an ecologically-sound manner. Ordinance standards that limit impervious surface coverage, or regulate materials used to construct impervious surfaces, can address this at a site plan individual site level.

Portions of southeast Michigan receive their drinking water from surface water sources. Because stormwater heats up the longer it sits on hot, impervious surfaces, it can also impact aquatic organisms that depend on cool or cold-water habitats. Lastly, water volume is greater for surface stormwater; therefore, it reaches the stream much faster. The increased volume and speed erode stream banks and impairs the stream's ability to support aquatic vegetation and wildlife.

An impervious surface analysis was conducted as part of the Upper Clinton and Stony/Paint Watershed Management Plans. This analysis classifies the quality of streams based on the percentage of impervious cover (IC) in their watersheds. The framework classifies streams as sensitive (0-11% IC), impacted (11-25% IC), and non-supporting (>25% IC).

The Stony/Paint results showed that, as of 2000, all of the streams in this watershed passing through Orion Township were classified as "sensitive," with impervious cover at less than 11% (average 7.3% IC). However, the model estimates that this watershed will develop to the "impacted" classification (average 11.2% IC), unless low impact development techniques are used. It is estimated that these techniques could reduce impervious cover in this watershed by almost 4%, and maintain "sensitive" streams.

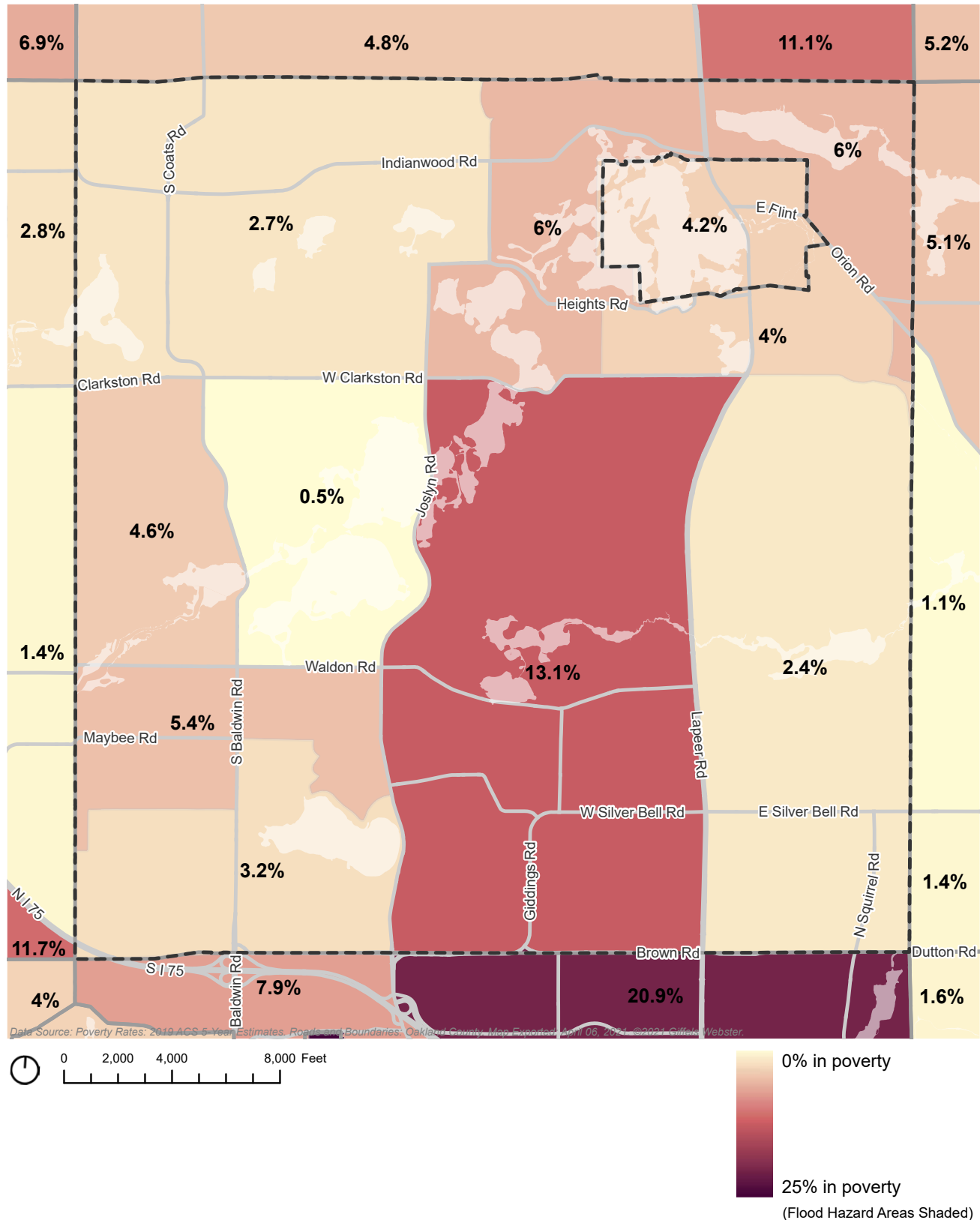
The Upper Clinton results show streams that are impacted to a greater level by development. The average IC score for 2000 land cover is 16.6% in the Township, placing the streams in this watershed in the "impacted" category. Future development will push these streams almost to the "non-supporting" classification with an average IC estimate of 23%. The model also estimates that low impact development techniques (such as pervious pavements, green roofs, natural feature protection, etc, could bring IC down by 5%, which would better maintain current conditions.

## Disaster Mitigation Mapping

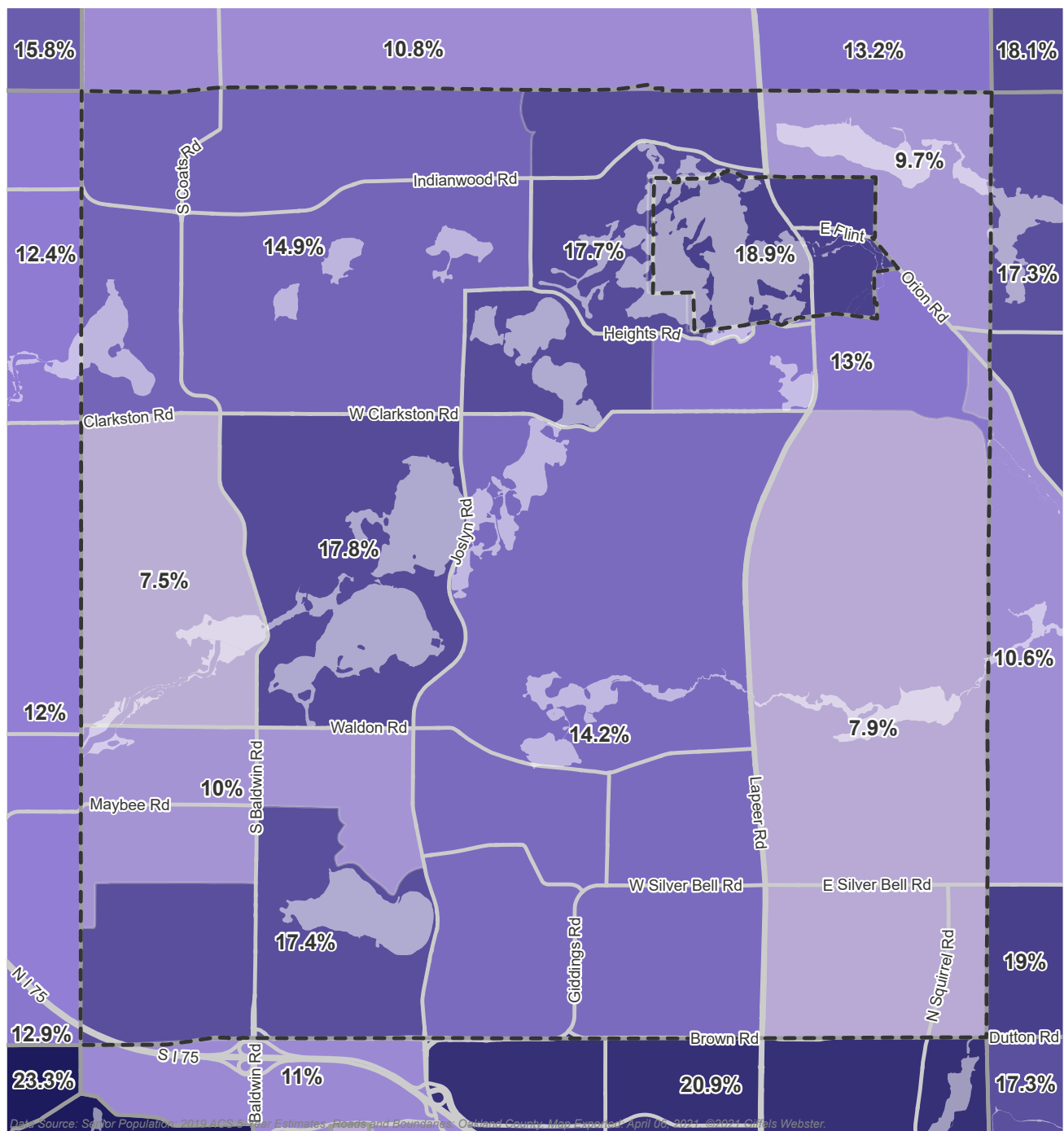
Map 14, Senior Population and Flood Areas (pg. 67), shows where seniors live in relation to flood hazard areas. As hazardous flood events increase, seniors may be more vulnerable to property damage and potential health issues because some may lack access to resources to retrofit structures or react to flash flood events.



MAP 12: PERCENTAGE IN POVERTY AND FLOOD AREAS



MAP 13: SENIOR POPULATION AND FLOOD AREAS



A photograph of a public input meeting in a large, modern room with a curved ceiling and multiple pendant lights. Several people are gathered around tables, looking at displays and talking. A man in a dark shirt is gesturing while talking to a man in a patterned shirt. A man in a blue shirt is sitting at a table. In the background, there are large windows with blinds and a digital display showing a map or diagram. A green banner with the text "Public Input Summary" is overlaid on the top right of the image.

# Public Input Summary



# Leadership Advance Summary

On Tuesday, February 9, 2021, the Giffels Webster planning team met with sixteen Orion Township staff members and stakeholders from various departments to gather their input on the Township's strengths, weaknesses, opportunities and threats (SWOT). Participants were asked what they saw as the Township's top three strengths and weaknesses. The results of that exercise are provided in the following pages. Information is compiled using Infogram.

## Orion Township Leadership Advance Summary

On Tuesday, February 9, 2021, the Giffels Webster planning team met with sixteen Orion Township staff members and stakeholders from various departments to gather their input on the township's strengths, weaknesses, opportunities and threats (SWOT). The results of that exercise are summarized on the following pages. Participants were asked what they saw as the township's top three **strengths** and **weaknesses**. The answers were then grouped into similar categories; the top 5 categories are show below:

## Strengths

### PARKS RECREATION AND OPEN SPACE (28)

Parks

Recreation

Safety paths

Close to recreational opportunities

Parks/trees nature



Above: Staff wrote strengths on green sticky notes, which were collected and organized into like categories

### GOVERNMENT (6)

Fiscally responsible

On TV

Chamber

Great Staff

Police and Fire

Reliable Infrastructure

### SCHOOLS (9)

Good School system

Education

### COMMUNITY (8)

Volunteer opportunities

Collaboration with government

Sense of community

Nice community & people

### LOCATION (6)

Freeway access

Close to I-75

Near city amenities



# Weaknesses

## TRANSPORTATION & MOBILITY (12)

Congestion

Road condition

Gravel/dirts roads

No Pedestrian connectivity

No Mass transit

## RECREATION (5)

No adult sports beer leagues

No Volleyball

No lake access

No rec center (youth)

No basketball courts

## HOUSING (6)

Lack of multiple-family

Affordability

Needs hosue for lake access



## LACK OF SHOPPING OPPORTUNITIES (8)

Not enough future business

Unknown to big developers

Too small

Lacks shopping

Lacks destination

Grocery shopping options

## LAND USE (6)

Urban/City mix

No downtown

Ugly Industrial

Land Fill

No Buisness center

Historic Suburban dev. Style

# Opportunities and Threats

After the strengths and weaknesses were discussed, staff were asked to discuss, in small groups of 4-5, what they perceived as the best opportunities and biggest threats to a better future for the township. Each group shared their answers, which are listed below:

## Opportunities

- Enhancing trails / open space
- Long term recreation millage
- Keeping state lands in control
- Environmentally responsible
- Master Plan Process
- Craft updated zoning to implement Master Plan
- Schools offering trades training
- Safe crossing for pathway system
- Youth/talent retention
- Provide affordable Housing
- Gingellville Overlay
- Pocket parks/walkability
- Mixed use development
- More restaurants
- Updating the Master Plan
- Educating citizens about development process
- Education for boards and commission
- Work with Village of Lake Orion
- Involved businesses in planning process
- Existing business spaces are available (vacancy)

## Threats

- Lawsuits (land use)
- Village/Twp. governments with different views
- Separate Police Depts.
- Invasive species
- Overtaxing
- Overbuilding/development
- Overcrowded lakes
- Declining population
- Negative perception of rental housing
- Maintain relationship with chamber
- Impact of online business to brick and mortar
- Change in social trends (rural being less attractive)
- Lack of employees to fill available jobs
- Aging population demand for community services
- Lack of population growth
- Consent judgments
- Fences
- Road conditions
- Drainage - residential areas
- Sewage and sanitary capacity



## Emerging Trends

Finally, staff were asked to write what emerging trends they thought should be explored as part of the master plan update process. They were asked to write down their favorite "trend" on a large sticky note, which were then all posted on the wall. Each staff member was then given six "votes"(dots) and were asked to vote for their favorite idea. All results were tallied and are shown in the table below:

Trends	Votes (Dots)
Green Infrastructure	4
Outbuilding Size	1
Using technology for safety	6
Safety Paths	4
Regional Connectivity	5
Live - work - play	2
Variety of housing	5
Sustainability (green space, cluster housing)	4
Establish Destination	18
Walkability + transit system	8
10 Minute neighborhood	8
How to attract talent?	5
Outdoor seating	2
Outdoor socialization	9
Diversified Housing Types / styles	11
Work from home	-

<https://www.oriontownship.org/departments>



The highest vote topic relates to establishing a destination or place that is clearly identifiable in the township. The 10 minute neighborhood comment is similar in that it speaks to creating walkable residential neighborhoods with a core area that provides local goods and services, all of which are accessible within a 10 minute walk. Walkability, outdoor socialization, safety paths, and live-work-play are also related topics that support the destination and 10 minute neighborhood concepts. For more information, please visit the Township's website:

# Open House Summary

## Open House

The Township hosted a hybrid open house which included an in-person event at the Township Hall on June 16th, which is followed by a four-day virtual open house. Both platforms included the same information and allowed participants to engage with information about the community and provide input on several prompts. Input is gathered on major topics as listed below

- Demographics and local economy
- Sustainability and natural features
- Land use (existing, future, and developments)
- Complete streets (roads and sidewalks)
- Housing (single-family, multi-family, and rural character)
- 15-minute neighborhoods: village and hamlets

### Encourage Industries



Education



Healthcare

## Township Now | Demographics, Economy & Sustainability

The feedback included a strong support for requiring developers to preserve more trees and to pay into a tree fund to install trees elsewhere within the Township (along roads or within parks).

The majority of the respondents considered wetland and woodland preservation very important. The feedback was split between 'neutral' and 'very important' when asked about low-impact storm water management practices. Residents recommended that the Township should pursue healthcare and educational industries and increasing employment opportunities.



### Discourage land uses

- Heavy industrial
- Woodland removal
- Large lot residential uses
- Conversion of residential to non-residential uses

## Land Use | Existing, Future & Developments

The majority of respondents do not have positive opinion about recent developments in the Township due to increased traffic. When asked to recommend areas for potential redevelopment, the property adjacent to Baldwin Commons was recommended.

The property adjacent to Baldwin Commons off Morgan Road would make be well suited for multi family as a transition area from commercial to residential and has great walk ability to the area conveniences

## Housing | Single-Family, Multiple-Family & Rural Character

The open house focused on gathering input on housing styles and development patterns. A summary of responses are provided in the images below. The input was gathered using a visual preference exercise. The respondents were asked to place a dot on their favorite image. Respondents recognize the need of alternate housing styles such as ADUs and cottage court housing to cater to the aging population. Only a quarter of the respondents did not consider missing middle housing types appropriate in the more densely populated areas of the Township. The majority of respondents (57%) did not support single-family developments on smaller lots.

FIG.10. PUBLIC INPUT SUMMARY: HOUSING

### Housing | PREFERRED DEVELOPMENT STYLE IN RURAL AREAS

#### Preferred Road Character.

Preserve Natural Vegetated Buffers



60%

#### Proposed Landscape Elements



23%

#### Front Yard Setbacks

Maintain Status Quo



44%

- Lots closer to the throughfares: rights-of-way.
- 1.5 - 2.5 acre lots
- 165 feet minimum lot width.
- 40 feet minimum front setbacks.

#### Frontyard Fences and Open Spaces



7%

#### Mix of Natural Fences and Landscaping



10%

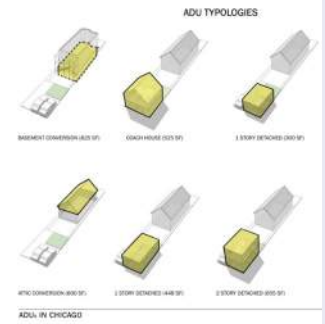
#### Larger Front Setbacks (150')



56%

- Incentivize rural corridor preservation by permitting flexibility in lot area and width in exchange for corresponding open space along roadways.

### Accessory Dwelling Units, an additional living quarter located on the same lot as an existing s



Almost fifty percent of the respondents supported permitting ADUs on larger single-family lots. Only a quarter of the respondents supported permitting ADUs on all lots. The feedback is split between attached and detached.

### Housing | SINGLE-FAMILY HOMES

#### Side-entry Garage



#### Recessed Garage



#### Recessed Garage w/detached Look



#### Front Projecting Garage



When asked about preferred style of housing among four options presented, the feedback included a strong interest (44%) in side-entry garage style units followed by recessed garage with detached look (27%). Front projecting garages are the least preferred choice (7%).

### Housing | PREFERRED HOUSING STYLE IN DENSE AREAS

#### Duplex Side-by-side



25%

#### Duplex Stacked



5%

#### Fourplex Stacked



3%

#### Courtyard Building



18%

#### Cottage Court



30%

#### Attached Townhouse



10%

#### Multiplex Medium



5%

#### Triplex Stacked



5%





## Widen Roads



- Joslyn Road to alleviate Baldwin traffic
- Waldon M-24 to Independence Twp.
- Heights Road
- Squirrel Road
- Possibly Clarkston Road (east-west)
- Full rebuild for Brown and Silverbell
- North right turn on Clarkston at Baldwin

## Complete Streets | Roads

Most respondents considered the current conditions of Township roads to be either neutral or poor. The attendees were asked multiple questions about potential locations for road widening or building more roads. There were only a couple of responses for new roads, Maybee Road, Silver Bell by the GM plant and another access to I-75 at Clintonville Road.

When asked about how important is proximity school and parks to their decision regarding the desired location of their home, a larger majority of respondents considered proximity to both places equally very important.

## Mobility Enhancements



more crosswalks

bike/walking path

Safer, easier crossing at M-24 and other major roads.

Little more directional signage, some solar style lighting, commercial sponsors (without gaudy promotion) to generate revenues for the paths.

sidewalks

Continuation of safety paths throughout township, safer crosswalks

Bike lanes or improved shoulders along all major roadways where the road right a ways are too small for paths.

Joslyn Sidewalk from Indian Woods to Heights Still feels unsafe after repaving

## Complete Streets | Sidewalks

One of the mobility questions focused more on pedestrian safety and non-motorized improvements. The responses indicate a strong interest for improving walkability and bikeability within the Township.

The attendees were asked for recommendations for potential locations for future pedestrian, bike path and pedestrian connections. An excerpt of responses is provided below.

## Future pedestrian, bike path, pedestrian connection



Something through or along the Scripps road area.

Elevated or constructed bike paths in the nature and wetland areas.

Maybe constructed / elevated trails in the nature areas and wetlands.

Joslyn Road from Brown to Silverbell; Brown Rd from M-24 to Joslyn

Maybe road west of Baldwin

Indianwood road east of Joslyn. Joslyn road south of Hammerslea

A way to get all the way down M-24 to Auburn Hills passed I-75. There is no completely finished safety path.

Waldon Rd (once paved) between Baldwin - Clintonville Rd

silverbell and squirrel

## 15-Minute Neighborhoods

The 15-Minute Neighborhood concept is based primarily on how far a person can walk or bike in both five- and 15-minute increments for each mode of travel based on the average speed of travel. The definition can vary, but for the purpose of this open house exercise, it is a place where you can access some of your daily needs (food, local services, local goods) within a 15-minute bike ride from your home.

The open house presented four potential 15-minute neighborhoods in the Township. Each 15-minute neighborhood typically has a village or hamlet at its core. The attendees were asked questions about supporting the concept and preferred uses in these areas.

FIG.11. PUBLIC INPUT SUMMARY: 15-MINUTE NEIGHBORHOOD

Do you support overall idea of 15-minute neighborhoods?



Do you support the Hamlet concept with buildings with limited setback & low-intensity commercial uses at the neighborhood core to promote walkability?



Are the Decker and Friendship Woods locations appropriate for Hamlet style developments?



### What uses would you like to see at the center of each 15-minute neighborhood?



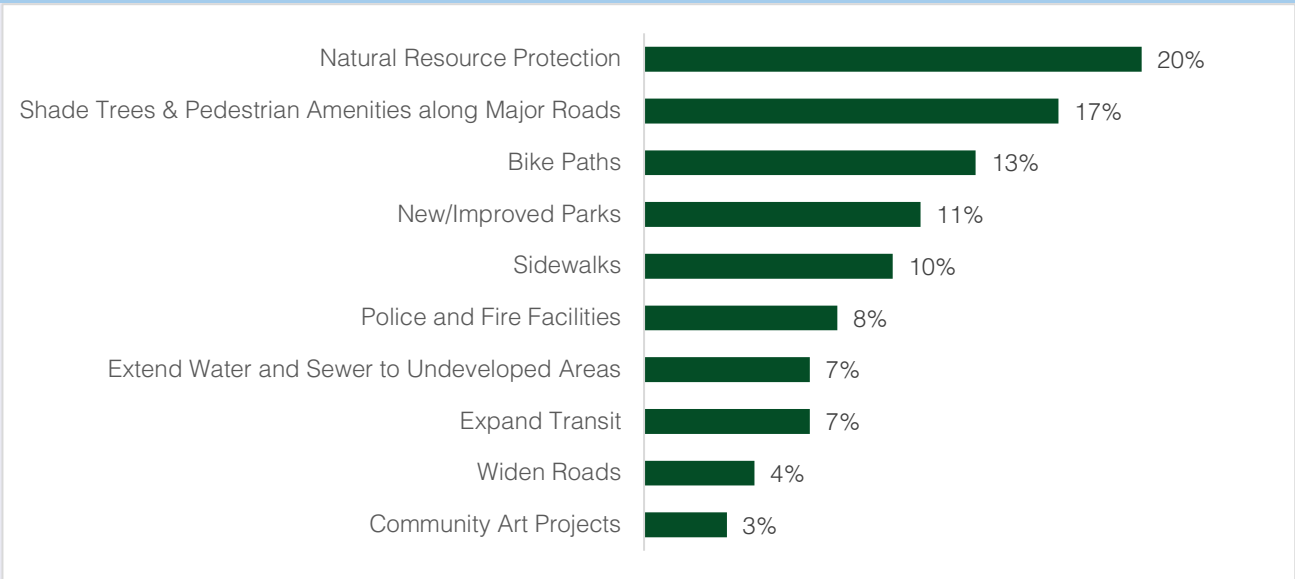
Refer to page 138 for more details about 15-minute neighborhoods.



# Spending Priorities

The participants were given three dots and ten topics, each dot represents one million dollars. They were asked, if they are given three million to spend, what three items would they pick to invest? Responses including majority support for preserving existing natural features and adding more trees and pedestrian amenities along major roads.

FIG.12. PUBLIC INPUT SUMMARY: SPENDING PRIORITIES



Township staff, Planning Commission and planning consultants interacting with the residents at the open house



Township Now! Land Use Housing Complete Streets 15-Minute Neighborhoods

## Welcome to the Orion Township's 2022 Master Plan Update!

We are really looking forward to listening to ideas, comments, observations, and other thoughts from the community.

---

Questions are provided at the end of each section. Please review the information and provide your input.

---

### What is a Master Plan?

1

A long-range vision for the future of the township

2

Serves as a guide for how the township can become the place it strives to be

3

Provides a framework in making big-picture decisions

4

Directs development in different areas of the community

5

Promotes and strengthens valued community assets

6

Encourages new partnerships and opportunities

The intent of this update is to understand current demographics, economics, and how our land is currently used, and then explore trends and projections on how Orion Township's population and marketplace may change over the next 10-20 years.

In addition to the in-person open house, the Township also launched the Master Plan Virtual Open House to provide an extended platform for public input. The virtual platform allowed participants to engage with information about the community and provide input on several prompts. The Virtual Open House was promoted via the Township's website and social media posts. This was open for a week following the open house. This chapter includes a summary of public input from the virtual open house and the virtual open house.



A scenic photograph of a lake with ripples in the water, trees on the shore, and a green banner with the text 'Goals & Objectives'. The banner is positioned in the upper right corner of the image. The background shows a calm lake with gentle ripples, a line of trees on the far shore, and a clear blue sky. In the foreground, there are large, dark rocks and some tree branches on the left side.

## Goals & Objectives

# Vision

Orion Township, where Living is a Vacation, seeks to guide growth in a rational manner, striving to avoid patterns of “leapfrog” development. Innovative and flexible approaches for growth management and development regulations will be used, with the desired outcome of preventing overcrowding, protecting critical open space and natural resources, preserving a balance of housing options, preserving community character, minimizing traffic congestion, fostering creativity in design, and establishing vibrant places for community interaction, commerce, and recreation.



# Goals

## High-Quality and Diverse Housing (Residential Areas)

Orion Township will provide and support high-quality housing for residents of all ages through new residential developments and ongoing maintenance and upkeep of existing neighborhoods. A variety of new, high-quality housing types at various densities will be accommodated to welcome younger residents and families as well as allow older residents to age in the community. The quality of life for residents will be enhanced by protecting the natural features and rural suburban atmosphere of the Township while encouraging the development of neighborhood parks and open spaces.

## Natural and Historic Resources (Environmental Resources and Historic Preservation)

Orion Township will preserve and maintain natural resources and open spaces through growth management techniques that encourage development in specific areas of the community while preserving and protecting natural features of the community. Future development will incorporate innovative storm water management, low-impact design features, and site and landscape design that protect natural resources, preserve high-quality open spaces, minimize stormwater runoff, and reflect the natural character of the Township. The Township will maintain and preserve structures of significant historical and architectural value which are key elements in the unique identity and community character of the Township.

## Economic Development (Economic Development, Commercial, Office and Industrial areas)

Orion Township will support a strong local workforce by maintaining and promoting the proper distribution of commercial, office, industrial and research development in a manner that results in desired economically sustainable developments, land use relationships, high-quality design, and an increase in the community's tax base. The Township will promote and encourage the concept of 15-minute neighborhoods in desired areas that foster walkable, mixed-use places supported by both non-motorized and motorized transportation infrastructure choices.

## Community Facilities (Community, Recreation, and Complete Streets)

Orion Township will support and foster motorized and non-motorized transportation facilities, community recreation facilities, and other supportive community facilities and services desired by residents and businesses in a financially responsible manner that reflects the Township's role and position in the region. These systems will minimize the impact on the Township's natural features and open space while supporting a high quality of life for residents of all ages, as well as targeted land use recommendations. The Township will, when desirable, partner with neighboring communities, other public agencies, and the private sector to maintain, link, and expand infrastructure in an effective, efficient, and economical manner.

## Community Character and Aesthetics

Orion Township's tagline, Where Living is a Vacation, encompasses a wide variety of community qualities and features that make the Township unique and cherished by those that live here. In addition to the goals and objectives noted above, the Township will continue to support retaining community character elements and aesthetic qualities that are consistent with the vision of the Township and promotion of health, safety, and general welfare.



# Objectives

## High-Quality and Diverse Housing

1. Support healthy communities by improving connectivity and access to green space in new and existing neighborhoods.
2. Ensure adequate housing styles and densities are available to provide options for first time home buyers or those looking to downsize and “age in community.”
3. Develop programs to maintain and enhance existing neighborhood character, especially within older neighborhoods
4. Encourage land use in accordance with the existing character and Township Future Land Use Plan.
5. Promote adaptability through the use of innovative planning and zoning techniques that will result in a full range of housing types.

## Natural and Historic Resources

1. Protect and enhance the Township’s woodlands, wetlands, water features, habitats, and open space by enforcing the regulations that preserve natural features and the functions that they provide to the community.
2. Improve storm water management using best management practices; establish appropriate standards for the community in coordination with the Oakland County Water Resources Commissioner.
3. Adopt and enforce policies that minimize pollution and preserve the lakes and watershed areas of the Township.
4. Promote and communicate sustainability concepts and incentivize residents and businesses to implement relevant strategies.
5. Encourage energy-efficient and environmentally sustainable development through raising awareness and creating standards that support best practices.
6. Provide resources and guidelines for the development and application of solar, wind, and other alternative energies.
7. Preserve the inherent architectural character of individual historical architecture resources throughout the Township.
8. Promote sustainable practices that craft solutions to today’s challenges that are cognizant of and sensitive to impacts on future generations.
9. Require street tree planting as part of all residential and non-residential development and promote and encourage preservation and, where appropriate, creation of woodland areas in order to foster environmental benefits, enhance property values, and act in support of the Township’s recognition in the Tree City USA program.

## Economic Development

1. Achieve a balanced variety of neighborhood-, community-, and regionally-oriented facilities that will meet the shopping and service needs of the community and nearby metropolitan area populations without unnecessary duplication.
2. Promote the physical clustering of commercial establishments by encouraging mixed use, shared parking facilities, non-motorized access, consolidated driveways, pleasant pedestrian spaces, and contextual extensions of utilities.
3. Regulate the physical clustering of industrial businesses in planned industrial parks, such as those within the southern half of the Township along the Brown Road and Lapeer Road corridors, rather than in stand-alone development, thereby providing for minimal extensions and impacts on utilities and nearby residential uses.
4. Support residents of all ages in the local workforce by serving as an information clearinghouse on local and regional training, education, and business needs.
5. Expand the Township's economy and tax base by supporting existing local businesses, encouraging entrepreneurship, and attracting new businesses
6. Implement incentive programs available through Oakland County and the State of Michigan regarding emerging employment sectors.
7. Continue participation in the Michigan Economic Development Corporation's Redevelopment Ready Communities Program.
8. Continue and refine the practice of identifying and improving key corridors and districts for growth and economic development, including those near the GM Orion assembly plant.
9. Promote the redevelopment of obsolete sites so that they can once again make meaningful contributions to the Township.

## Community Facilities

1. Facilitate multi-modal connections that provide access to residential areas, economic destinations and parks & recreation facilities throughout the Township in a safe, efficient and effective manner.
2. Ensure civic spaces, utilities and other infrastructure are well-maintained while providing sustainable strategies for growth in a practical manner.
3. Provide community support to ensure Orion Township police, fire and first responders can continue to operate efficiently in a manner that best serves all residents within the community.
4. Pursue new facilities that enhance the quality of life for Township residents and businesses, including a new Township Hall, improved parks, and non-motorized facilities that connect these assets with residential and non-residential areas.
5. Actively promote and, where appropriate, require the installation of non-motorized facilities in accordance with the Township's Safety Path Plan and establishment of the core 15-minute neighborhoods.
6. Deliver outstanding parks and recreation facilities and programs.
7. Encourage Township staff to promote ways in which all Township-owned facilities can conserve energy and serve as a model for energy efficiency in the Township.





## Community Character and Aesthetics

1. Enforce Township regulations that reduce glare and preserve the dark sky.
2. Promote the preservation of natural vegetation along rural corridors of the Township through creative zoning regulations and coordination with the Road Commission for Oakland County.
3. Seek out preservation of important viewsheds that permit Township residents to view lakes, streams and other natural resources
4. Require high quality and durable finishing materials and furnishings, consistent with recommendations and policies in this Master Plan, and recognize that certain districts and corridors require unique and harmonious elements.
5. Support the advancement of the four identified 15-minute neighborhoods and develop regulations that support hamlet and village style development.
6. Encourage the incorporation of design elements into new development that reflect the historic character of the Township.
7. Continue to update and enforce sign regulations to ensure that signage in the Township is an aesthetic asset that effects communication and quality appearance over blight, clutter and over-saturation of messaging.



A photograph of a two-story white house with a dark grey roof. The house features horizontal siding and several windows with green shutters. A green lawn and bushes are in the foreground, and trees are in the background. A green banner with the text "Housing Plan" is overlaid on the right side of the image.

# Housing Plan

# Housing Plan

The Housing Plan refines the residential land use designations identified in the Land Use Plan. The housing plan intends to outline a strategy for a Township to ensure the housing needs for current and future residents are met, to provide opportunities for residents to age in place and to regulate density for future residential developments. Housing styles and development patterns in the Township was the focus of the Master Plan open house that was conducted in June 2021. The results indicate support for the need of alternate housing styles to cater to a variety of age segments and family sizes in the population. Refer to page 74 for a summary of public input on these topics.

## Current Housing

Housing represents the strength of the local economy and overall community appeal. Older housing reflects the physical, historic and social context of a community. The age of housing influences local housing policies for rehabilitation and redevelopment. Older houses require additional maintenance and upkeep, and may also require upgrades to ensure energy efficiency, barrier free access and increased livability for aging adults. In 2019, of the Township's 13,880 housing units, 78% were owner-occupied, 19% were occupied by renters and 5% remained vacant. This is consistent with the county rates.

## Housing Value

Housing values in the Township have remained stagnant since 2010, with a slight (0.1%) median housing value decrease over that time. Overall the Township has fared better than Oakland County since 2010, where overall values fell 3.4% from \$251,248 to \$242,700. Orion Township has a median housing value of \$269,000.

FIG.13. HOUSING VALUES: ORION TWP

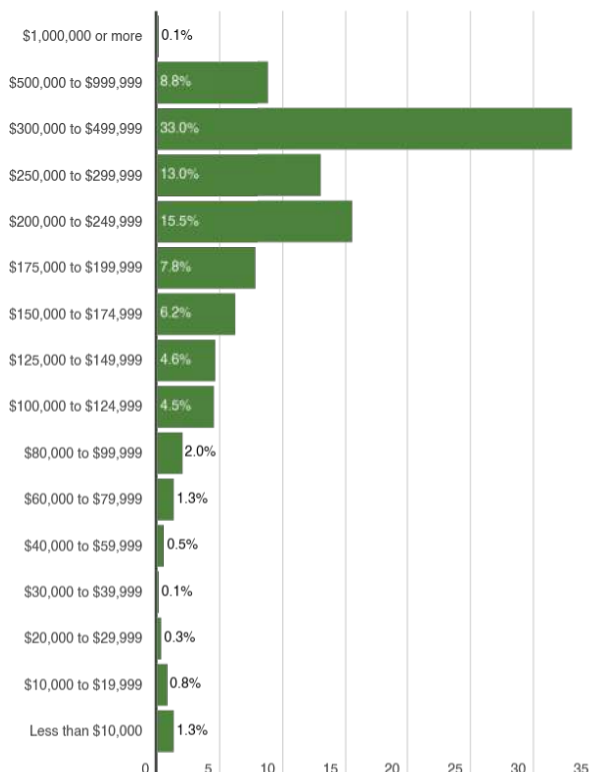
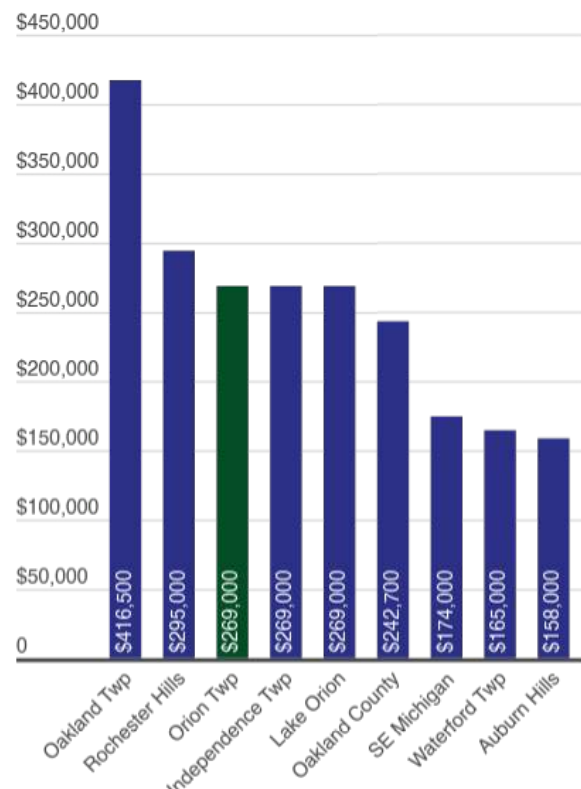


FIG.14. HOUSING VALUE COMPARISON



Source: 2019 ACS data via SEMCOG Community Explorer





Housing Types

Single-family housing is the predominant housing type in the Township, making up 78% of all units. Multiple unit buildings (20%) and mobile homes/other (2%) comprise the remaining 22%. See the image below for more details.

FIG.15. HOUSING TYPES: ORION TOWNSHIP



78% Single Family

2010: 9,640  
2019: 10, 849



20% Multi-unit

2010: 2,395  
2019: 2,716



2% Mobile Home / Other

2010: 268  
2019: 315

Source: 2019 ACS data via SEMCOG Community Explorer



Existing housing in Orion Township  
Source: Giffels Webster, 2021



## Housing Forecast

The following is an excerpt from the market assessment survey conducted in 2020 by the Chesapeake Group. Refer to the appendix for more details.

### Housing Development Patterns

Both Orion Township and Oakland County experienced substantial growth in housing permits between 2011 to 2020, following the end of the preceding Great Recession. The Township contributed approximately 6% of the county's 25,000 housing permits, consisting of primarily single-family units. The Township saw slower non-single-family residential growth and only permitted these types of units in 5 of the 10-year period. The Township and county experienced a slowdown in permit activity in 2020 due to the Covid pandemic and other factors.

### Property Trends Synopsis

Many factors are driving the significant price escalation for residential property in 2021, including but not limited to:

1. Historically low mortgage rates.
2. Supply limitations partially resulting from the pandemic.
3. Limited labor supply.
4. Rapidly rising costs of materials. The cost of construction is being driven by the rising cost of materials and limited labor supply.

### Summary of the Market Survey

- 52% of the households may or are likely to move within the next five years from their Orion area residences.
- The primary potential reasons for the move include changes in lifestyle, number of household members, and physical or medical conditions.
- 50% of those that may move in the next five years say they will stay in Michigan.
- In addition to those that may move, about 3 in 10 households have an individual that will likely create a new household in the next three years.
- Age is not a factor in considering the availability of housing options in the Orion area, with most defining options as “very good” or “excellent.”
- For those that may move, almost one-half envision or desire a unit smaller than their current home. Income is not a contributing factor for those who are likely to move and desire a smaller, same-sized, or larger home in the future. The majority of all sized units have annual household incomes above \$100,000, reflecting the potential affordability of moving to a new home.
- 72% of residents define Orion's shopping options to which they can easily walk as being “poor” or “fair”. Due to online options, the character of commercial development and its blending with walkability are of increasing importance. Households with primary income earners 25 years of age or younger have the most members who feel the availability of places where they can live, recreate, easily walk, and work at or near one location to be “fair” or “poor.” The 15-minute neighborhood concepts included in this plan will help to support more non-motorized connections to core mixed-use areas.

## Housing Demand Forecast

The following is an estimate of housing activity for Orion Township. Adjustments have been made to the survey data for demand forecast purposes based on known biases associated with online sampling. The opportunities are not linked to any specific development proposal or site but are a measure of potential within Orion and its core. The defined units and space may be beyond the holding capacity of available land but are for guidance with planning. Also, the ability to accommodate the demand may be limited by community desires and character.

Based on historical patterns in the County, Orion Township, and an additional database derived from The Chesapeake Group's surveys of residents in other communities of the County, the potential for new housing units in Orion Township is defined.

The forecast estimates a total of roughly 1,375 to 1,525 new units by 2030. Of these units, about 260 to 290 could be non-single-household structures like duplexes, townhomes, and other attached structures. This total does not include any potential for developing an “active adult” community, unique niche opportunities, or the range of assisted living opportunities. This estimate is not linked to the holding capacity of available land, current zoning, or any existing development regulations.



Above: New housing developments should provide a variety of housing styles and options ranging from single to multi family

Source (top and bottom): Giffels Webster (2021)

Source (middle): Orion Township



## Missing Middle Housing

“Missing Middle Housing” is a term coined by Daniel Parolek of Opticos Design, Inc. in 2010. Parolek defines this type of housing as follows:

“Well-designed, simple Missing Middle housing types achieve medium-density yields and provide high-quality, marketable options between the scales of single-family homes and mid-rise flats for walkable urban living. They are designed to meet the specific needs of shifting demographics and the new market demand and are a key component to a diverse neighborhood. They are classified as “missing” because very few of these housing types have been built since the early 1940s due to regulatory constraints, the shift to auto-dependent patterns of development, and the incentivization of single-family home ownership.”

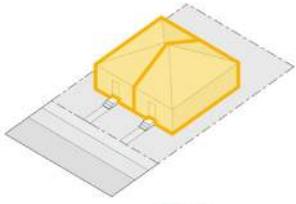
Missing Middle Housing is a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable urban living. Characteristics of these housing types include:

- Walkable (homes are set in walkable context)
- Medium density but lower perceived density
- Smaller, well-designed units
- Smaller footprint and blended densities

FIG.16. MISSING MIDDLE HOUSING CONCEPT

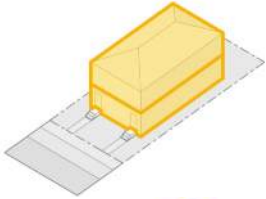


## Missing Middle Housing Types



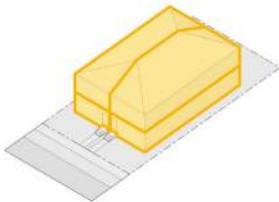
### Duplex Side-by-side

A small (1 to 2-story), detached structure that consists of two dwelling units arranged side-by-side, each with an entry from the street. This type may include a rear yard.



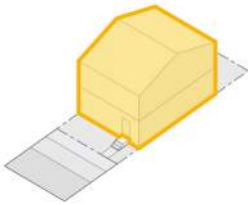
### Duplex Stacked

A small (2 to 2.5-story), detached structure that consists of two dwelling units arranged one above the other, each with an entry from the street.



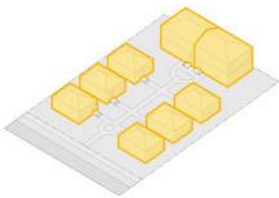
### Quadplex Stacked

A detached (2 to 2.5-story) structure with four dwelling units, two on the ground floor and two above, with shared or individual entries from the street. This type may include a rear yard.



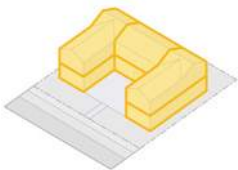
### Attached Townhouse

A small-to medium-sized attached structure that consists of 2 to 16 multi-story dwelling units placed side-by-side. Entries are on the narrow side of the unit and typically face a street or courtyard.



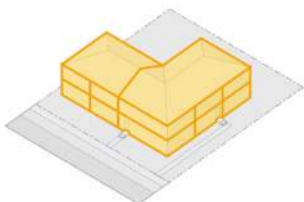
### Cottage Court

A group of small (1 to 1.5-story\*), detached structures arranged around a shared court visible from the street. The shared court is an important community-enhancing element and unit entrances should be from the shared court. It replaces the function of a rear yard.



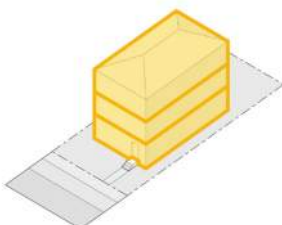
### Courtyard Multifamily

A medium-to-large sized (1 to 3.5-story\*) detached structure consisting of multiple side-by-side and/or stacked dwelling units oriented around a courtyard or series of courtyards. The courtyard replaces the function of a rear yard and is more open to the street in low intensity neighborhoods and less open to the street in more urban setting.



### Multiplex Medium

A detached (2 to 2.5-story) structure that consists of 5 to 12 dwelling units arranged side-by-side and/or stacked, typically with a shared entry from the street.



### Triplex Stacked

A small-to-medium (3 to 3.5-story) sized detached structure that consists of 3 dwelling units typically stacked on top of each other on consecutive floors, with one entry for the ground floor unit and a shared entry for the units above.

*Data & Image source: Opticos Design, Inc.*



## Recommendations

### Missing Middle Housing

The Township also recognizes the need for allowing for diverse housing within the Township. The Township recently amended the Zoning Ordinance to allow for a diverse type of housing styles within the Gingellville Village Center area. For existing multiple family zoning districts, the current ordinance standards permit senior housing, garden style apartments and attached townhomes.

The market analysis results indicate an increasing demand for smaller units for current residents in order to downsize. In addition, proximity and walkability to retail uses and other services is a primary factor in choosing a location for a future home. According to the survey, for those that may move, almost one-half envision or desire a unit smaller than their current home. Income is not a contributing factor for those who are likely to move and desire a smaller, same-sized, or larger home in the future. Walkability is also an important factor in identifying potential locations for such housing developments. The table below provides a summary of recommended housing styles in applicable future land use categories. Minimum density for developments using 'missing middle housing styles' should be guided by the building form, open space standards and other design features consistent with the underlying zoning. Such flexibility in housing styles would allow for residents to age in place.

**TABLE 7. MISSING MIDDLE HOUSING- USE RECOMMENDATIONS**

	SF Low	SF Medium	SF High	MF Low	MF Medium	Village Center	Mixed Use	PUD
Duplex Side-by-side				Y	Y	Y		Y*
Duplex Stacked				Y	Y	Y		Y*
Quadplex Stacked				Y	Y	Y	Y	Y*
Attached Townhouse				Y	Y	Y	Y	Y*
Cottage Court			Y	Y	Y	Y	Y	Y*
Courtyard Multi-family				Y	Y	Y	Y	Y*
Multiplex Medium				Y	Y	Y	Y	Y*
Triplex Stacked				Y	Y	Y	Y	Y*

\* Only if found to be appropriate as part of the PUD approval process.

Amendments to the Zoning Ordinance will be necessary for allow all of these types as indicated in the above table.

In addition to the missing middle types above, the multi-family, Village Center, Mixed Use , and, where appropriate, PUD planned areas may also provide for traditional multi-family units in a variety of styles. In mixed-use settings, these may be located over non-residential uses or they may be in stand-alone buildings.



## Rural Development Patterns

The Orion Township has longstanding interest in preserving and maintaining natural features and open spaces. The zoning tools that are available to maintain rural character within low-density residential areas include ones that discourage traditional subdivisions where lots are located adjacent to road rights-of-way and to encourage cluster and open space developments with a modest reduction in lot sizes and larger green buffers between the lots and the roads rights-of-way (See image below).

Typically, a minimum width of this type of natural green corridor is 100 feet deep from the right-of-way line on both sides of the road. The Township should consider incentivizing rural corridor preservation by permitting flexibility in lot area and width in exchange for corresponding open space along roadways. In addition to modifying lot development standards, the Township may also consider encouraging landscaping elements such as rural fencing. This recommendation received favorable response at the Master Plan open house. The following corridors are designated as priorities for corridor preservation as described above:

1. Indianwood Road
2. Baldwin Road, north of Indianwood Road
3. Coates Road, north of Indianwood Road
4. Designated Natural Beauty Roads
5. Scripps Road and Greenshield Road through Bald Mountain Recreation Area
6. Waldon Road and
7. Clarkston Road

See page 129 in the Complete Streets chapter for more information.



Source: Google Images



## PUD Planned Unit Development

Planned Unit Development (PUD) is a flexible development tool, authorized by the Michigan Zoning Enabling Act, that promotes innovative solutions that preserves natural features, provides community benefits and builds up the existing community fabric.



Source: Giffels Webster

### Qualifying Criteria

Examples of projects that might qualify for a PUD include the following:

- Projects that create a community catalyst, by providing amenities, missing housing types and promoting multi-modal transportation.
- Developments that preserve green space, promote green infrastructure, and promote further preservation and enhancement of existing and future (proposed) natural features.
- Projects that require flexibility in parcel size and shapes to develop and improve a site that, under traditional zoning, would be difficult to achieve. Flexibility in zoning should not have a negative impact on existing uses, but rather strengthen the connection of the project to the network of development and overall fabric in the community.

### Purpose and Intent

In addition to the qualifying criteria, PUD projects should be consistent with the following:

- The PUD process should not be used to introduce a radical shift away from the vision of the Master Plan; rather, it should be a Master Plan implementation tool.
- PUD projects can be used to assist in providing for transitional zoning from high-intensity areas to lower intensity areas. In some cases, the transition may take place within the PUD itself.
- Where appropriate from a density perspective, PUD projects can assist in the introduction of missing middle housing types, so Orion Township's community attributes are available to a wide range of people with varying income levels.
- PUD projects should use the opportunity for development flexibility to promote sustainability, community resiliency, and healthier living conditions.
- Where appropriate, PUD should provide for the preservation of natural and rural road corridors by concentrating development interior to the site and preserving and/or enhancing natural vegetation and amenities along rural and natural corridors in Orion Township.

# Attainable Housing

When communities have a wide spectrum of housing options to support residents, they can accomplish many goals. The availability of “attainable” housing helps accommodate everyone from young adults who are just beginning to live on their own, to families looking to grow, to older residents looking to downsize while staying in the community. It also provides for workforce housing. While there is no universal definition of “attainable housing,” the term was recently defined by the Urban Land Institute as “non-subsidized, for-sale housing that is affordable to households with incomes between 80 and 120 percent of the area median income (AMI).”

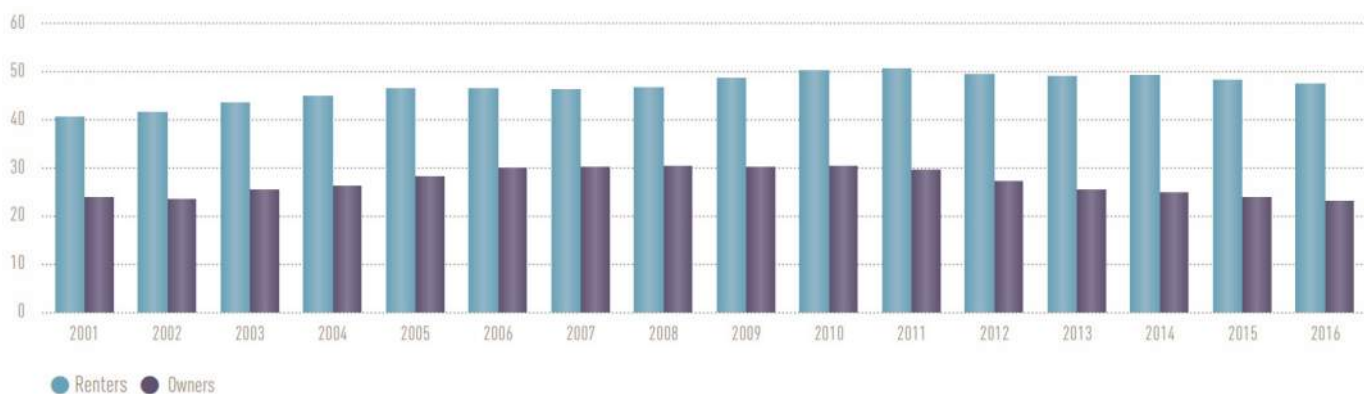
## Overview

In many communities, young adults and the elderly have limited housing options due to a combination of their lower income levels along with the pricing and availability of housing. This kind of financial challenge can impact people of all ages.

The general rule of thumb based on guidance from the U.S. Department of Housing and Urban Development is to spend a maximum of 30% of a household’s income on housing costs, yet many people find themselves spending more on housing, leaving less of their income available for other household expenses. Finding attainable housing can be challenge and it can stress family finances.

The figure below demonstrates that nearly half of all renter households and about a quarter of owner households are cost burdened. Cost burdened is defined as households spending more that 30 percent of income on housing. In 2001, only slightly more that 40 percent of renters were cost burdened.

FIG. 17. ATTAINABLE HOUSING



Source: Joint Center for Housing Studies at Harvard University, *The State of the Nation's Housing 2018*



## Housing Costs and Supply

Housing costs are on the rise. According to the National Association of Home Builders, the median price of a new-construction home was \$375,000 in March 2020 (nationwide), up from \$325,100 in October 2018. The median price for existing homes was \$280,600, up from \$257,500 in 2018. The cost of new construction is driving the overall cost of housing higher.

The supply of multifamily for-sale housing is decreasing. Multifamily for-sale housing has historically represented about 20 to 25 percent of total multifamily permits. This type of housing is often more attainable because of its lower cost. In the past 8 years, multifamily for-sale housing has represented 6 to 7 percent of total permits, reflecting a significant post-Great Recession decline.

New construction has delivered larger homes with more bedrooms even though household size was dropping. “Although one- or two-person households make up more than 60 percent of total households, nearly 50 percent of the homes delivered are four bedrooms or more. Less than 10 percent of the homes offer fewer bedroom options like one and two bedrooms,” as noted by ULI.

The same ULI report notes that small housing, under 1,400 square feet, has historically represented about 16 percent of new construction, but in the last cycle, it has averaged closer to 7 percent. When combined with the next size category, 1,400 to 1,800 square feet, the overall distribution of “small homes” has declined from just under 40 percent to 22 percent. Homes over 2,400 square feet have increased from 32 percent to 50 percent of new construction since 1999, according to the ULI.

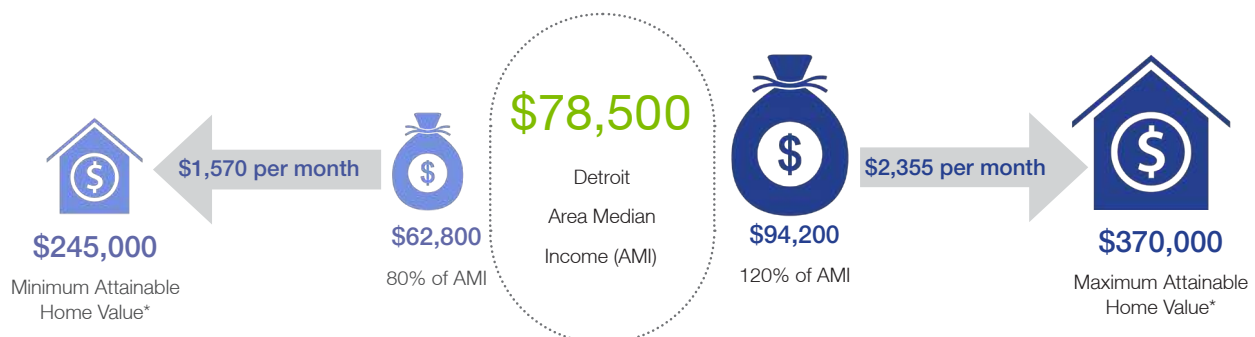
Urban Land Institute (ULI) is a leading provider of research and analysis on issues that affect housing. <https://bit.ly/AttainableHousing-ULI>

### What does this mean for Orion Township?

As noted above, attainable housing has been defined as non-subsidized, for-sale housing that is affordable to households with incomes between 80 and 120 percent of the area median income (AMI).” The Detroit metropolitan area median family income for 2020, which is used by the U.S. Department of Housing and Urban Development for housing reports and applies to Oakland County, was \$78,500.00. Median family income is typically higher than median household income. A family consists of two or more people compared to a household, which may only consist of one person. The numbers below and in Figure 18 are based on providing attainable housing in the Detroit regional market:

- **MINIMUM VALUE.** 80% of the median family income = \$62,800.00. With 30% of income spent on housing, \$1,570 per month is available. A home valued about \$245,000 is attainable at this income level.
- **MAXIMUM VALUE.** 120% of the median income = \$94,200.00. With 30% of income spent on housing, \$2,355 per month is available. A home valued about \$370,000 is attainable at this income level.

FIG. 18. ESTIMATED ATTAINABLE HOME VALUE FOR ORION TOWNSHIP



### What determines a median housing sale value?

The median sales price for a home in the metro Detroit real estate market in June 2021 was \$282,938. With 10 percent down, a family income of about \$77,600 is necessary for a home of this median price.

The estimated median price for a single-family home of new construction in southeast Michigan was \$391,000 (Detroit News, April 29, 2019) and the median price of single family new construction in Michigan is over \$330,000 (MSHDA), which is substantially higher than the median home value. These prices have continued to increase with the rising cost of lumber and other materials. Michigan home prices are also higher than the national average of about \$325,100 (2018). To buy a new construction home valued at \$391,000, a family household income of about \$99,700 is required, which is outside the range of attainable housing (\$62,800 to \$ 94,200). See Figure 18 in the previous page.

In addition to housing costs, transportation costs can also be a substantial economic burden. For the southeast Michigan region (SEMCOG), 29 percent of income is spent on housing and 23 percent is spent on transportation (52 percent total). In Oakland County, where housing costs are higher, on average, than the region, 58 percent of income is spent on housing and transportation (34 percent housing and 23 percent transportation).

**The Master Plan addresses attainable housing by targeting a wide variety of housing options that go beyond single-family detached housing. Examples include multi-family dwellings, manufactured housing, and missing middle housing types, which are house-scale building with multiple units (duplexes, quadplexes and cottage court bungalows). This variety of housing types will expand the number of homes available across many price points.**

### References

- <https://bit.ly/AttainableHousing-ULI>
- <https://www.huduser.gov/portal/datasets/il/il2020/2020MedCalc.odn>



# Density Plan

The Residential Density Plan map on next page indicates the planned maximum number of dwelling units per acre throughout the Township. The density numbers shown on the map correspond to the density maximums and ranges provided for.

## Density numbers

Density numbers provided on this plan are not intended to depict actual densities of established residential areas. These are gross densities that apply to the site, excluding regulated wetland areas. If an applicant receives approval from the applicable regulatory agency(ies) for off-site mitigation of regulated wetlands, the Township may consider including the on-site wetland areas in the density calculations. The Township will review unique site characteristics and the surrounding area to establish appropriate density through zoning. Density numbers provided can be organized into the following groups:

### Established residential areas

Density ranges indicated for established residential areas primarily reflects previously established density patterns. Significant changes to density in established residential areas are not planned or anticipated.

### Established public and semi-public areas

These areas, consisting primarily of public parks, schools, municipal property and similar uses, are not planned for residential development as indicated by the Institutional designation. Density is provided on the Residential Density Plan in the event that the public / semi-public use is no longer viable and the Township determines that residential use is appropriate.

### Emerging growth areas

This covers mostly rural and underdeveloped areas of the Township. As municipal services are carefully planned for expansion within the Township, the Residential Density Plan sets forth a policy guide for future zoning designations. Future water and sewer capability in low density areas of the Township will likely result in development at the higher end of the ranges provided on the map.

## Build-out analysis

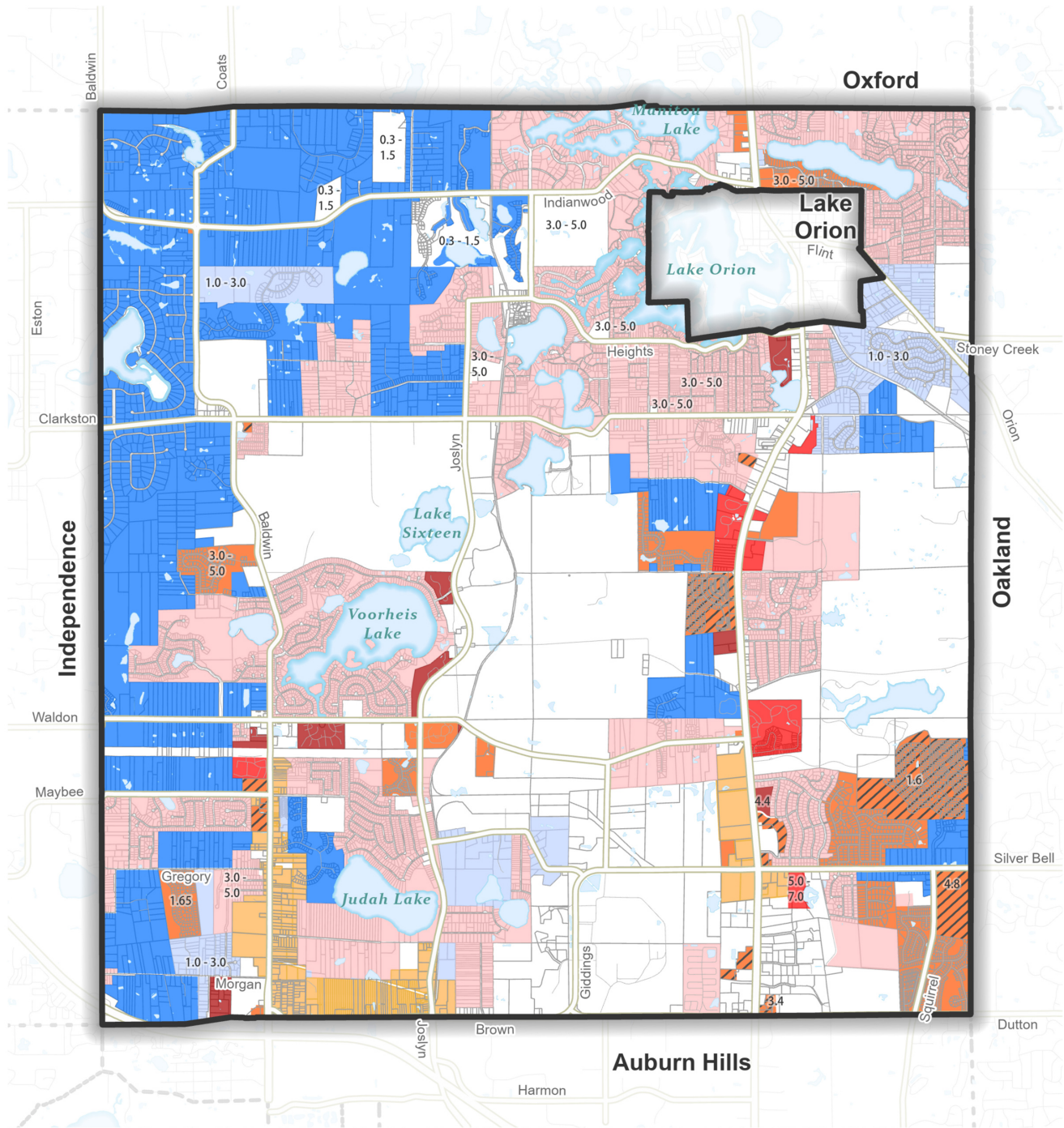
Based on the residential density map, a forecast of build-out population has been conducted. Vacant property and underutilized property was totaled for each subarea and the mid-point of the planned density range was applied. Public park areas were excluded. For mixed use areas, a separate forecast was prepared. Areas that appear to have state-regulated wetlands were not included in the total land area. Once a total number of units was determined, a factor of 2.51 persons per unit (SEMCOG) was applied. This total was then added to the existing population for an approximate build-out population.

- 2020 population: 35,300
- New dwelling units possible: 4,660
- Persons per unit estimate: 2.51
- New residents possible: 11,697
- Conceptual build-out population: 46,996

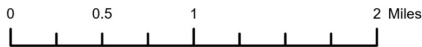




MAP 14: RESIDENTIAL DENSITY PLAN



Data sources: Residential Density Plan: Orion Township. Roads and Boundaries: State of Michigan. Parks: Oakland County. Date Exported: July 26, 2022. ©2022 Giffels Webster.



0.1 - 0.5 = 0.1 - 0.5 Dwelling Units/Acre

Planned density ranges are not a guarantee of dwelling unit yield per acre.  
See zoning ordinance for development regulations.

N/A\* Density varies based on building form.

Public and Semi-Public areas are not planned for residential development.

#### Units per Acre



- Mixed Use and Village Center Areas\*
- PUD
- Special Circumstance

Intentionally Blank



# Economic Development Plan





# Economic Development Plan

## Introduction

Orion Township has used many available economic development tools in the past. One of the most significant is the formulation of a Corridor Improvement Authority included special zoning districts and overlays. Future success will depend upon taking advantage of opportunities and focusing on mitigating areas that could impact the Township's long-term economic viability. For example, the increasing median age trend, which is shared by much of the region, is conducive to a robust economic development outcome. Actions to expand workforce housing and non-residential job growth in targeted areas could attract or retain young people in the Township.

No community will capture all the composite of marketable activity and space. There will be competition. Furthermore, economic conditions continue to change. Purchasing online was growing rapidly prior to Covid-19, resulting in the exportation of dollars; the online purchasing rate sped up since the pandemic. Large proportions of office and workspace were being built in homes, and more people were working from remote locations before Covid-19; as with purchasing, the speed of change has accelerated.

If Orion Township is going to take advantage of the opportunities in the market, it must keep its economic toolbox ready and prepared, with an eye towards effectively and efficiently utilizing limited human and fiscal resources. Also, some potential changes in policies and ordinances activity may be necessary. The following are targeted to enhance economic and fiscal viability and should be explored as part of Master Plan implementation.

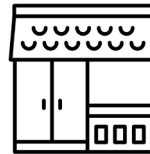
FIG.19. MARKETABLE OPPORTUNITIES OVER THE NEXT 10 YEARS

The identified marketable opportunities over the next 10 years include the following



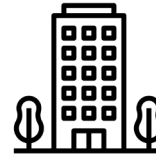
### HOUSING

1,500 additional housing units



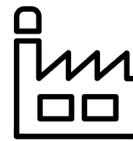
### RETAIL & SERVICE

270,000 sq. ft.



### OFFICE

100,000 sq.ft.



### INDUSTRIAL

200,000 sq. ft.

\*Developed by The Chesapeake Group, Inc., 2021.

## Overall Economic Strategy

Orion Township seeks to maintain an economically sustainable community which can support the well-being of its residents and business in terms of services, opportunities, and quality of life. It strives to assure that new investment in the community is in conformance with the Master Plan. It seeks to capitalize on the existing community assets including location, existing business, residential desirability, recreational opportunities, schools and top public safety ratings.

Economic development activity should be focused on the following:

1. Foster entrepreneurship
2. Increase housing options
3. Maximize the relationship with General Motors and the future of electric vehicle production
4. Seek growth of industries that utilize the labor force's skills
5. Create places for business incubators
6. Explore the development of a sports training and climate-controlled activity center
7. Adapt commercial corridors for the future
8. Recruit of outside and local developer investment interests
9. Promote development within the CIA district and designated corridors
10. Promote redevelopment sites and continue to develop new locations

### Strategy 1. Foster entrepreneurship

The Township should work with higher educational institutions to attract those interested in small business development, including but not limited to those focused on small business activity and electric vehicle growth.

From a regulatory perspective, the Township can support work from home options in areas by potential mixing uses within close proximity of residential areas. This creates access to potential retail, service, shared office space

and other amenities close to home and accessible by bicycle and walking, in addition to the motor vehicle. The implementation of the 15-minute neighborhood concept will support this effort.

Entrepreneurship growth also fosters housing investment as well as the attraction of younger households.

### Strategy 2. Increase housing options

Housing is an important element of economic development. Orion Township seeks to increase the number of housing options available to current and new residents, with a focus on ensuring that new housing development is consistent with the community character and housing recommendations in this Master Plan. Labor force reassessment is playing out in all facets of the labor market with people making very different decisions about work than they did pre-Covid. Resignations are high; there are 4.9 million more people in the U.S. who aren't working or looking for work, and there is a surge in retirements. There is a boost in entrepreneurship.

Orion Township is anticipating a relatively flat trend in population over the next 20 years based on current projections. With a growing population 65 years of age or older and a need for younger residents, housing opportunities need to expand and reflect overall market opportunities that are consistent with Township's goals and objectives.

There is ample opportunity to capture new households through growth in the housing stock. Adding rooftops significantly impacts the community's economic viability by expanding the internal commercial market and holding existing seniors in the community by accommodating them in appropriate housing, potentially freeing existing occupied units for younger households, creating new work environments, expanding tax revenues without changes in rates, and others.

Housing expansion, including both the mix of housing types and number of units, will have a significant economic impact on Orion Township. It makes good planning sense to build upon past planning successes such as the Gingellville Village Center planning area, one of the Township's 15-minute neighborhoods.



This village-scale area would benefit from multiple family and missing middle, house-scale attached units that would be attractive to both young people and active empty nesters looking for low-maintenance housing in a walkable setting.

Employment of tools that can assist first-time home buyers, homeownership stimulation, and zoning and other regulations that foster walkability and community continuity are keys.

### Strategy 3. Maximize the relationship with General Motors and the future of Electric Vehicle Production

The GM Orion Assembly Plant opened in 1983 and made the transition to manufacturing electric vehicles in 2020. Orion Township is the home to the Chevy Bolt EV production vehicles and Cruise AV test vehicles. This 4.3 million square foot facility employs over 1,100 people and is on the cutting edge of electric vehicle production and testing.

Potential future action facilitated by the Township could include developing a joint effort with GM to expand linked activity. For example, the Township could partner to recruit software developers, battery research entities, EV parts producers, etc.



Source: Giffels Webster 2020

### Strategy 4. Seek growth of industries that utilize the labor force's skills

The following industries have been identified as those that could take advantage of the skills that are already present in the area labor force. These would be attractive industries to pursue to fill vacant or emerging development sites.

1. Drone developer or assemblers
2. Robotics and other advanced manufacturing businesses, including electric vehicle suppliers
3. Electric bike producers or assemblers
4. Electric scooter manufacturers
5. Information tech providers to the above producers
6. 3D printing operations
7. Computer software application and 3D printing
8. Defense and construction industries and related suppliers
9. Cannabis growth and production

### Strategy 5. Create Places for Business Incubators

Orion Township can generate excitement and activity in core walkable areas and other strategic locations by allowing business incubator spaces. These are generally comprised of attractive, constructed pop-up units, not tents, typically sized at about 10'x10'. The purpose of these spaces is not to compete with local businesses, but rather to serve as a place to test a new retail-oriented business or venture or serve as a place for an existing business to test a new location. If they are provided with heating, these unique business incubators could operate year-round. Others may operate only seasonally. In the core 15-minute neighborhood areas, a collection of pop-up incubators could locate under single management control on an in-fill lot, providing a place to visit by foot or bicycle.

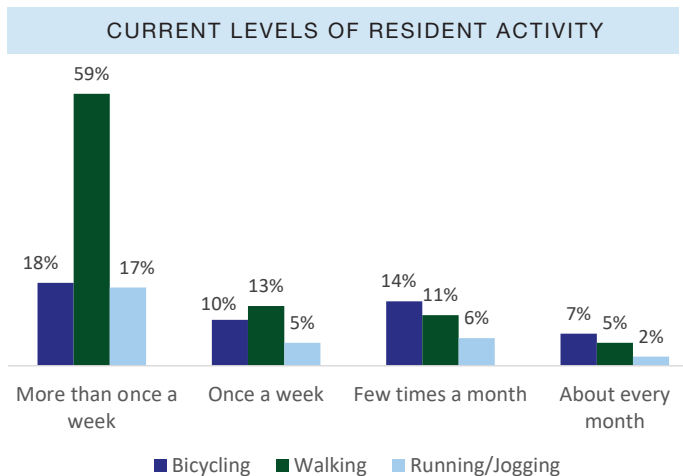


Source: Giffels Webster 2020



## Strategy 6. Explore the development of a sports training and climate-controlled activity center

Orion Township is home to Bald Mountain State Recreation Park with strong outdoor activity such as hiking, mountain biking, fishing, swimming, paddle boating, and picnicking. Also, 90-acre lake in Orion Oaks County Park and the various trails and parks are significant outdoor resources. Current levels of activity are reflected below.



Numerous well-known professional athletes, Olympians, professional athletes, sports commentators and personalities came from the Township and nearby area over many years. This provides an opportunity to partner and establish a sports training facility that takes advantage of an active population and local resources to train that population. It also allows for the community to establish partnerships with community sports leagues and advanced sports clubs (soccer, baseball, lacrosse, etc.).

## Strategy 7. Adapt commercial corridors for the future

Retail corridors will be sustainable if they adapt to changes in demand and consumer preferences. The following are suggested actions to promote retail sustainability:

- Seek redevelopment of targeted properties
- Expand mixing of uses and walkability
- Expand the activity defined in the market analysis
- Expand housing options integrated into corridors, villages and hamlets

## Strategy 8. Recruitment of outside and local developer Investment Interests

As important as local private and public sector investment is to Orion Township, so too is investment generated from private outside sources. If one examines the history of “crowdfunding,” which reached beyond “friends and family” funding, to newer versions of the concept, such as “Start Engine,” outside private funding can generate more considerable financial resources to make things possible that seemed beyond reach.

While not abandoning the regional efforts at business recruitment, Orion Township should prioritize and pursue outside developer and investor interests on a project by project basis. That effort should include the following.

- Advise potential investors of the best opportunities for growth and inform them about the importance of maintaining community character that is unique to the Township.
- Identification of entities to be solicited based on their portfolios.
- Direct solicitation of those entities. It cannot be assumed that the “right” entities are looking for opportunities, know of such in Orion Township even if ad placement is done, and that they will “find” this location.
- Follow-up with those expressing interests.
- Create local partnerships as appropriate to buy property, create lease arrangements, or any number of other diverse fiscal, buyout, or ownership relationships.

## Strategy 9. Promote development within the CIA district and designated corridors

Promote the development platforms of the Corridor Improvement Authority (CIA) and other zoned commercial corridors and locations which include an established Industrial Development District in accordance with PA 198 for tax abatement in limited zones. Further the Township supports applicable Brownfield Tax Increment Financing (TIF) opportunities for environmentally challenged sites.



## Strategy 10. Promote redevelopment of priority sites

Three sites within the Township have been strategically identified as prime areas to focus redevelopment resources in order to achieve future economic vitality and sustainability. The following pages provide an overview and recommendations for these locations.

### Redevelopment Site 1:

#### JUDAH-BALDWIN (GINGELLVILLE/BIZ TRANSITION AREA)



Source: Giffels Webster 2020

### Background

**Location.** The approximate 88-acre area is located in the southwest quadrant of the Township, on the east side of Baldwin Road, and along both north and south sides of Judah Road. The northeast portion of the site is in close proximity to the Judah Lake wetlands.

**History and Existing Development Constraints.** The Baldwin Road corridor had recently been reconstructed and expanded from a two-lane, rural thoroughfare to a four-lane boulevard roadway with center landscaped islands, safety paths, and improved lighting on both sides. A signature characteristic of the improvement project are roundabouts at major intersections, including Judah Road, the focal point of the southern boundary of planned Gingellville Village Center District.

Unlike the other two redevelopment sites, the Judah-Baldwin area contains a large number of individual parcels with many property owners, which may prolong the acquisition process in order to implement the long-range vision for the area. Some may choose to remain as single family homes.

**Future Land Use Map.** The 2015 Future Land Use Map for the designated area consists of the Gingellville Village Center District north of Judah Road. South of Judah Road, the plan establishes Office Research and Industrial, Commercial, and Residential Mixed Use, which aligns with the Brown Road Innovation Zone (BIZ). A portion of single-family residential land uses are identified along Judah Road, extending east of the redevelopment area.

The 2022 Future Land Use map proposes extending the Village Center classification to include this redevelopment area. This will accomplish a number of key objectives:

- adding more rooftops in the vicinity of the Village Center planning area
- provide a variety of housing types not found elsewhere in the Township
- provide workforce housing opportunities
- locating housing in reasonable proximity to the Baldwin / I-75 interchange



**Public Input.** The general consensus of the data collected from the community survey and the February 2021 Leadership Advance meeting is that the Village Center concept is planning opportunity that residents desire and want to develop so that the community can strategically improve upon a sense of place and identity. The Village Center is the largest, walkable mixed-use district planned in the Township, and along with the Village of Lake Orion and the two hamlet areas, comprises the four core areas of the planned 15-minute neighborhoods (see pages 138-145). With the framework that the Gingellville Village Center Overlay provides, and the implementation of goals and objectives outlined in the Master Plan, this potential redevelopment area can serve as a southern Village Center gateway and transition from the BIZ uses to the south to the Village Center area.

### Concepts for the Redevelopment

**Land Use.** With mixed use as the focus for the village center development, low intensity commercial, entertainment, and office uses are permitted to mix with a variety of residential use types. The mixed-use conceptual plan shown below illustrates a layout that is in line with the imagined redevelopment based on the future land use designations.

Flex buildings along Baldwin Road are retail, mixed use, or townhouse, up to three stories, all depending on market conditions. Gateway areas at the roundabout provide gathering space for plazas, outdoor dining venues, and public art.

East of the flex buildings, a new, north-south public road will separate townhomes from ranch-style, detached cottage court bungalow units north of Judah Road and cottage court duplexes south of Judah. These units would be one-story ranches with a ½ story bonus bedroom/bathroom upstairs, and possibly with two-story units mixed in.

The cottage court bungalows north of Judah Road are planned to potentially accommodate quadplex units at the ends of each block. These units are envisioned as being designed to appear as larger single family homes (see photo example), but include two units on each of two levels.

Also planned, are 100' wide greenways along each side

of Judah Road will beautify and buffer the residential neighborhoods on Judah Road as well as provide an attractive transition to the residential areas beyond the district. Rain gardens and a walking trail will wrap around the development on the north, east, and south sides, connecting to the safety path along the east side of Baldwin Road.

**Building Form.** Urban design will play a key role in the



Source: Quadplex example (Photo by Michael Kansas Sebastian - Flickr)



Source: Cottage Court Bungalow example - Ingelnook in Carmel, Indiana





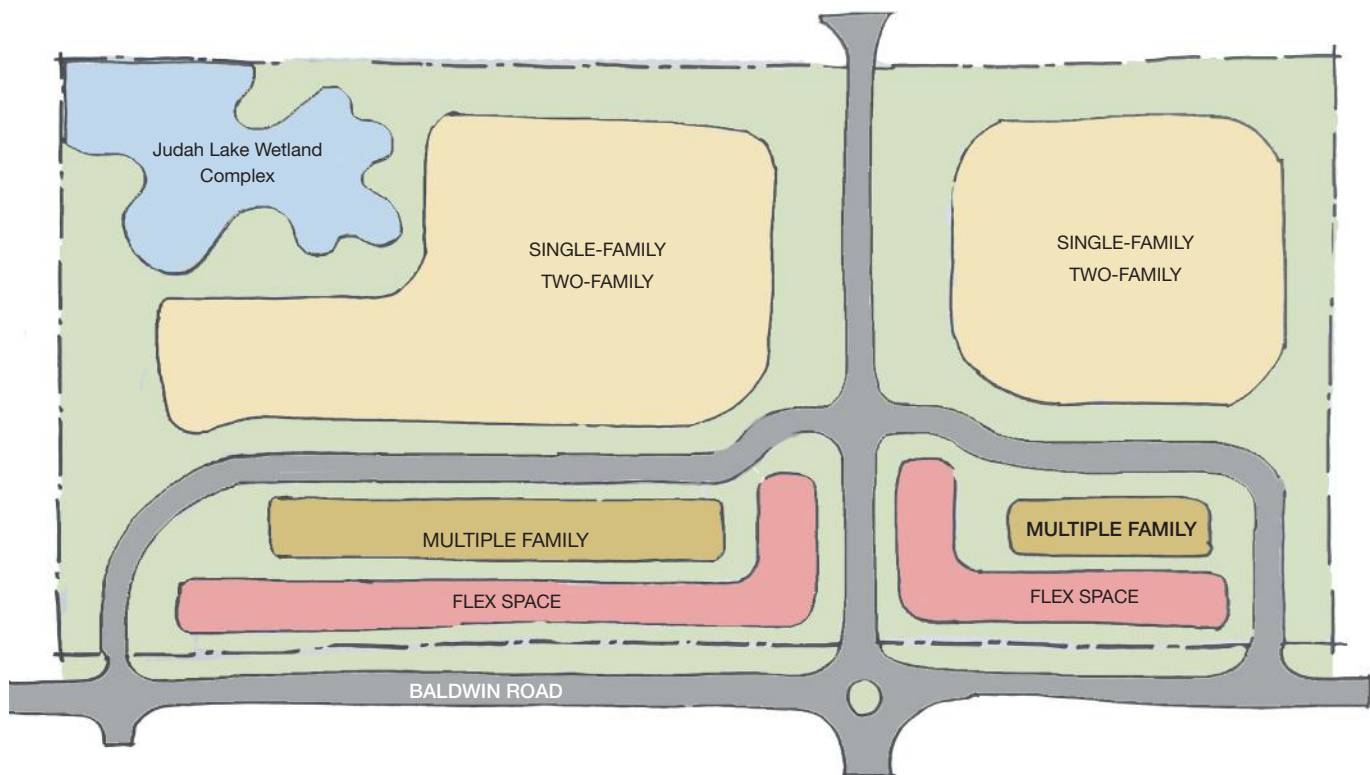
redevelopment of this area. Design features should deviate away from suburban style and auto-centric layouts and exemplify a more human scale, sustainable, and resourceful presence within the limitations of the buildable area (rights-of-way, wetlands, woodlands, etc). Reduced setbacks, incorporation of open space, and placemaking elements planned in this area will foster a sense of community. The look and feel of the built environment can, with appropriate buffers, achieve harmony with and transition to less dense land uses to the east.

**Transportation.** The site should take advantage of the investments that included safety paths as part of the Baldwin Road improvement and expansion project. The conceptual layout explained above is intended to be served by non-motorized transportation facilities that connect to adjacent sidewalks, roadways, natural areas, and sites as identified in the Township's Thoroughfare Plan.

**Sustainability.** With its close proximity to Judah Lake and its surrounding natural features, the redevelopment site has an opportunity to engage in sustainable building practices with sensitivity to the natural environment as well as alternatives to transportation, as mentioned above. The future land use framework has been established for a mix of uses to maximize economic productivity, evolve as a sense of place, while honoring the natural surroundings that will enhance the quality of life for residents and non-residents alike.

**Development of the District.** The connectivity of the Gingellville Village Center Overlay and BIZ District are a clear indication that the Township has strategically set aside an area where it is believed the goals and objectives identified in the Master Plan can be successfully implemented through sound public policy and careful, forward thinking planning. The adopted Master Plan should provide the guidance required to develop the area in a manner. There will need to be a new zoning district or modified Village Center District to make this plan possible, accounting for more missing middle housing types and cottage court style development patterns.

FIG.20. JUDAH-BALDWIN(GINGELLVILLE/BIZ TRANSITION AREA CONCEPT)



## Redevelopment Site 2:

FIG. 21. EAGLE VALLEY LANDFILL LOCATION



### Background

**Location.** The 277.5-acre site is located in the southeast quadrant of the Township and abuts the north side of Silverbell Road and the east side of Giddings Road.

**History and Existing Development Constraints.** The Eagle Valley Recycling and Disposal Facility is an operable, Type II landfill that has been an important presence serving the immediate and surrounding Southeast Michigan community since 1985. The facility produces renewable energy from harnessing methane gases produced from the state-of-the-art collection of solid waste. According to reports from Waste Management, the company that owns the facility, the amount of renewable energy the site produces, which produces power for nearby homes and businesses, is one of the factors that contributed to the company's decision to maintain its operation for the foreseeable future.

**Future Land Use Map.** The Future Land Use Map designates this redevelopment site as recreation. Properties east of the site are currently within the Lapeer Road Overlay District and are planned for a mixed use of Industrial, Commercial, and Residential.

Natural features along the northern boundary of the site provide buffering from existing and planned medium residential lots to the north. Beyond the Giddings and Silverbell Roads, along the west and south sides respectively, future land use designations of research and light industrial remain comparable to the existing limited industrial and industrial park districts. The General Motors Orion Assembly Plant lies south of the landfill and continues to utilize the renewable energy resources generated by the landfill operations as well as solar power.

**Public Input.** The data gathered from the Leadership Advance regarding the landfill site is that it is, or is perceived to be, a weakness within the community. Key components of its purpose were identified in the "Emerging Trends" commentary; those being green infrastructure and sustainability. The takeaway is that the owner and operator of the landfill, as an existing facility, publishes a wide variety of information explaining its role as a leader in environmental stewardship, protection, and practice.



Source: Giffels Webster 2020





## Concepts for the Redevelopment

**Land Use.** The current and future use of the Eagle Valley Recycling and Disposal facility represents a unique opportunity to remain a purposeful community asset for many years to come, while also planning for transition to a new use once the facility ceases to operate as a landfill. By recognizing and understanding the level of environmental protection and regulation that currently takes place at the facility, the community will be better positioned to analyze, prepare for, and implement the next lifespan of the former landfill and future recreation site.

The vision for this site is expanded to include both recreational and renewable energy land uses. In addition to the methane gas potential that is currently being realized on this site, this site is adaptable to harness clean solar power as a commercial solar farm. These would particularly be an attractive use if portions of the overall site prove difficult to mitigate for recreational uses.



*Solar Farm on Closed Landfill in Dover, Mass. Photo by Lucas Faria, USDOE via wikimedia*





## Redevelopment Site 3:

FIG.22. BROWN ROAD INNOVATION (BIZ) SITE



### Background

**Location.** The site is located in the southwest quadrant of the Township, along the north side of Brown Road, between Baldwin and Joslyn Roads. It is a central site within the Brown Road Innovation Zone District.

**History and Existing Development Constraints.** This redevelopment site is in a prime location along Brown Road, a corridor shared by Orion Township and Auburn Hills to the south and has experienced rapid and expansive commercial growth in the recent past. There is not much in the way of known constraints to develop the site other than to market it for the types of mixed uses intended under the future land use map. The site is currently used by an excavating company and there is significant outdoor storage of vehicles and equipment on the site.

**Future Land Use Map.** The Future Land Use Map for the designated area consists of a mix of uses as industrial, commercial, and residential, which parallels the present-day Brown Road Innovation Zone (BIZ). Here, these types of developments and land uses are encouraged within the existing BIZ zoning district.

**Public Input.** Future land use designation allowing for a mix of uses parallels that of the current Brown Road Innovation District. The area, coupled with the extension of the Village Center classification, north along Baldwin Road, is intended to address the desire for a more diversified approach to development with sensitivity toward sustainability and place-based design standards.



View of Brown Road development site, looking east.  
Source: Giffels Webster 2020

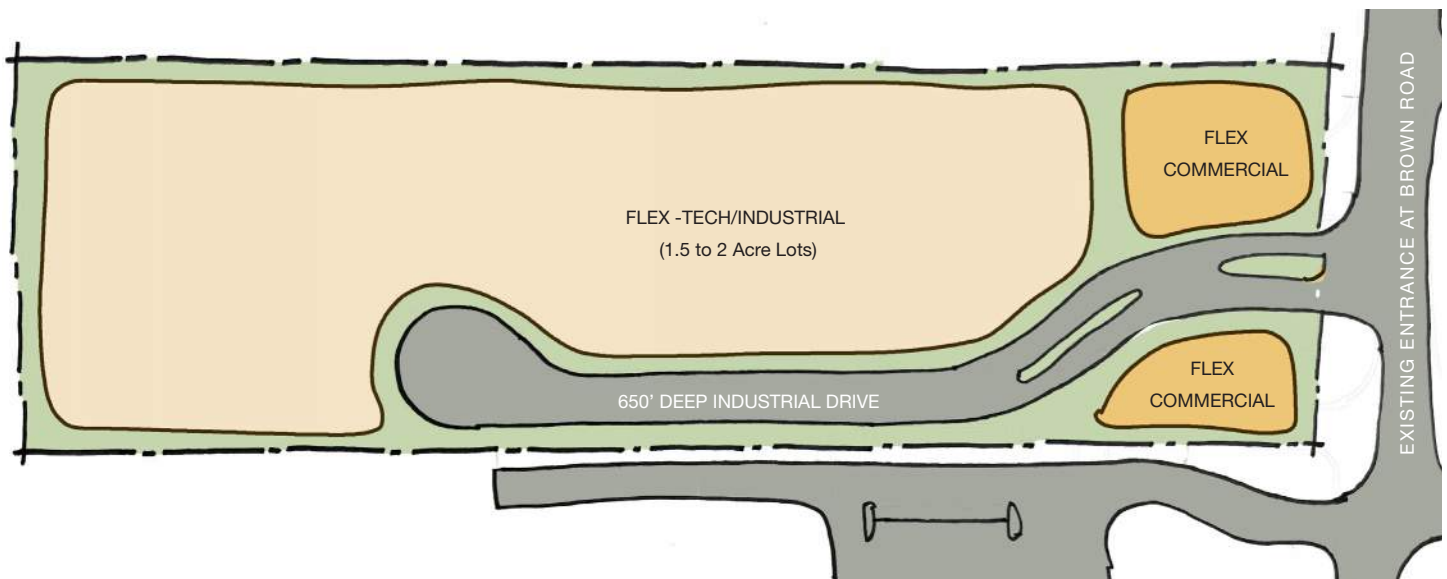


### Concepts for the Redevelopment

**Land Use.** In keeping with the characteristics of the current BIZ District and the goals of the Master Plan, a conceptual approach to redeveloping the site would be to divide the land according to future needs and provide a single-point, common access to each parcel via Brown Road to the south. A secondary access connection to the west and/or east could also be explored. The future use should be compatible and consistent with the shared Brown Road commercial corridor with Auburn Hills.

The concept plan envisions redevelopment as a research office complex with individual pad sites for users. The frontage on Brown Road could develop with a restaurant or retail pad. This redevelopment concept would complement the planned hotel and restaurant uses to the east and Menards to the west.

FIG.23. BIZ SITE REDEVELOPMENT CONCEPT PLAN





## Leisure Recreation

In Michigan, many state parks are a principal tourist attraction and host millions of visitors each year. State parks, such as Bald Mountain Recreation Area in Orion Township, are also home to spectacular landscapes, historic structures and sites, sensitive habitats, and rare plants and wildlife. This, in turn, attracts visitors from around the region who are interested in leisure recreation activities within the park. Because some visitor activities have the potential to harm these resources, balancing recreation use with resource protection requires specific care. The MDNR guides development, use, and protection of its park lands according to a general management plans (GMP), which are prepared specifically for each park. This resource is worth exploring at the community level, where popular local parks contain sensitive habitats and other resources. This approach provides thoughtful management to sustain the uses and benefits of resources while balancing recreation use and resource protection.

For Orion Township, it is important that there be a balance between residents and visitors enjoying the natural features in the community. It is recognized some Township amenities have a regional draw that goes beyond the boundaries of Orion Township. It is also recognized that visitors to these nature features can help support local businesses. If natural features and amenities become too popular to those outside the community, it could negatively impact enjoyment by residents. By studying visitation patterns and usage rates, the Township can adjust its marketing efforts accordingly.



*Above: The Paint Creek trail is a popular destination for regional residents seeking leisure recreation. The trail provides a connection to the north and central portion of Oakland County and is one example of how leisure tourism can draw visitors with little impact to the Township.*



*Above: MDNR boat launch on Lake Orion in Orion Township.*

### Pure Michigan Trail Town Designation

Orion Township was one of three Michigan communities named as 2020 Pure Michigan Trail Towns by the Michigan Department of Natural Resources (DNR). Towns with Pure Michigan designation are identified as vibrant places where trail-based tourism meets the needs of both trail users and town residents. A Pure Michigan Trail Town is a destination along a Pure Michigan Trail where users can venture off the trail to enjoy the scenery and the nearby community's character, heritage and charm. For more information, visit <https://www.michigan.gov/dnr/places/state-trails/pure-mi-trails>



*Source: Giffels Webster 2020*





# Complete Streets



# Safety Path Plan

## Complete Streets Policy

**Complete Streets** is a term used to describe a transportation network that includes facilities for vehicles, pedestrians, cyclists, and other legal users of all ages and abilities. In 2010, Michigan passed Complete Streets legislation to encourage and justify the development of Complete Streets in communities. At that time, Michigan's Planning Enabling Act was also amended to require comprehensive plans to address Complete Streets. Communities that adopt Complete Streets policies recognize that

- Complete Streets provide transportation choices, allowing people to move about their communities safely and easily.
- Complete Streets policies acknowledge the problems with current transportation facilities.
- Implementing Complete Streets strategies will make communities better places to live and work.

An important element of the Comprehensive Plan process is the planning for the overall system of streets and roads in a community that provide for the movement of people and goods from places both inside and outside the community.

The National Complete Streets Coalition (NCSC) compiled a list of ten principles that makes an ideal Complete Streets policy.

### VISION

#### Vision and intent

Includes an equitable vision for how and why the community wants to complete its streets. Specifies need to create complete, connected, network and specifies at least four modes, two of which must be biking or walking.

### DESIGN

#### Diverse users

Benefits all users equitably, particularly vulnerable users and the most under-invested and under-served communities.

#### Design

Directs the use of the latest and best design criteria and guidelines and sets a time frame for their implementation.

#### Land use and context sensitivity

Considers the surrounding community's current and expected land use and transportation needs.

### IMPLEMENTATION

#### Performance measures

Establishes performance standards that are specific, equitable, and available to the public.

#### Commitment in all projects and phases

Applies to new, retro-fit/reconstruction, maintenance, and ongoing projects.

#### Clear, accountable expectations

Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to exceptions being granted.

#### Jurisdiction

Requires inter agency coordination between government departments and partner agencies on Complete Streets.

#### Project selection criteria

Provides specific criteria to encourage funding prioritization for Complete Streets implementation.

#### Implementation steps

Includes specific next steps for implementation of the policy.



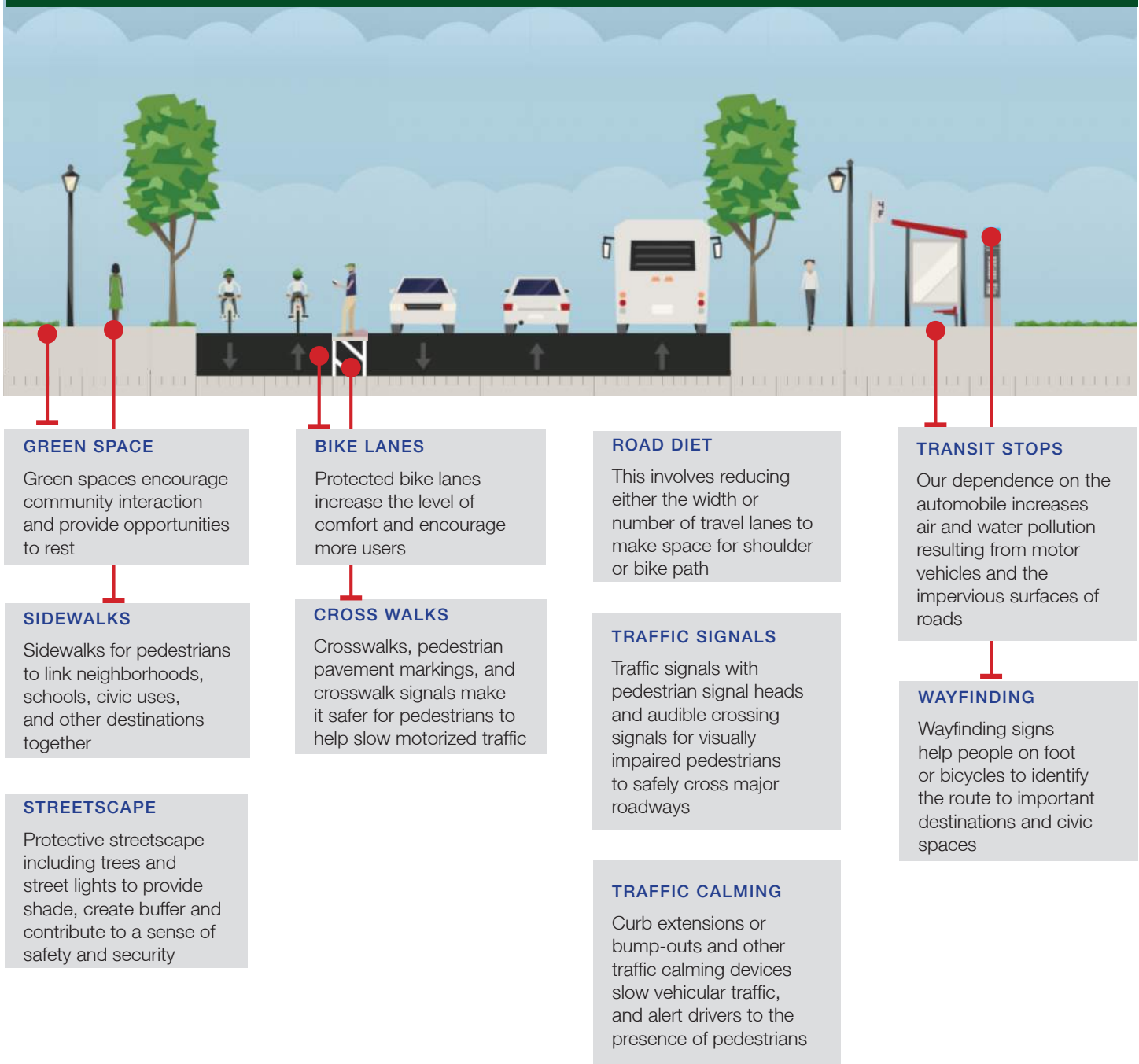
**FIG. 24. Elements of Complete Street Design**

Image Source: Street Mix; Exhibit prepared by: Giffels Webster



FIG. 25. BENEFITS OF COMPLETE STREETS

## Safety



1. Reduce pedestrian accidents by increasing the safety factor.
2. Perceptions of the safety of non-motorized travel strongly influence decisions about alternative modes of travel for many.
3. Reducing either the width or number of travel lanes to make space for shoulder or bike paths will improve safety (road diet).
4. Refer to 'Level of Stress' on the following pages.



On an average, a pedestrian was killed in the US every **88 minutes** in traffic crashes in 2017



Between 1989 and 2018, **child obesity rates** rose dramatically, while the percentage of walking or biking to school dropped

## Health



1. Walking or biking to school will result in reduced child obesity rates.
2. Sedentary lifestyles have been shown to be associated with a host of long-term health problems.
3. Sidewalks, bike paths and access to transit increases level of physical activity.



**54%** of older American living in inhospitable neighborhoods say they would walk and ride more often if things improved

## Access



1. Walking or biking to school will result in reduced child obesity rates.
2. Sedentary lifestyles have been shown to be associated with a host of long-term health problems.



Carbon-dioxide emissions can be reduced by **20 pounds per day** or more than

4,800 pounds in a year per each commuter by using transit instead of driving

## Environment



1. Our dependence on the automobile increases air and water pollution resulting from motor vehicles and the impervious surfaces of roads.
2. Studies have shown that 5 to 10 percent of urban automobile trips can reasonably be shifted to non-motorized transport.



nearly

**40 percent** of merchants reported increase in sales, and **60 percent** more area residents shopping locally due to reduced travel time and convenience

## Economy



1. Designing residential and local business districts are redesigned with traffic calming measures and provide safe pedestrian access increases consumer activity.
2. Implementing Complete Streets will be a good placemaking strategy for economic development and community revitalization.

@Giffels Webster

The usage rate of any non-motorized facility by diverse groups of users depends on the level of comfort the path provides. Level of comfort typically depends on various stress factors such as vehicular traffic speed, volume and the time of the day. Safely designed pedestrian/bicycle lanes lead to more users and less accidents. The recommended non-motorized routes in this are rated based on the following criteria:

### Level of Traffic Stress

The Mineta Transportation Institute developed a rating system to rate the “stress levels” users experience. The ‘Level of Traffic Stress’ (LTS) ratings range from 1 (lowest stress) to 4 (highest stress and discomfort) and are based on factors such as the speed and volume of vehicle traffic, the number of travel lanes, the size and complexity of intersections, and the types of bicycle facilities provided.

### Type of Ridership

A study completed by Roger Geller for the Portland Office of Transportation identified Four type(s) of users which correlates with the LTS ratings. The type of riders are categorized by their level of comfort riding on different types of facilities.

### All Ages and Abilities

National Association of City Transportation Officials (NACTO) developed an ‘All Ages & Abilities’ criteria for selecting and implementing bike facilities. All Ages and Abilities facilities are defined by three primary factors: safety, comfortability and equitability. This guide helps communities design facilities with appropriate traffic calming measures based on contextual factors such as vehicular speeds and volumes, user type and level of comfort to reduce accidents and increase ridership. Another good resource for determining the right type of facility for a particular route is the ‘Bikeway Selection Guide’ created by US Department of Transportation Federal Highway Administration.

FIG. 26. ALL AGES AND ABILITIES





TYPE OF USERS		BARRIERS TO CONSIDER
	Children	Smaller and less visible from driver's seat
	Seniors	Lower visual acuity and slower riding speeds
	Women	Concerns about personal safety and traffic stress. Prefer buffers or barriers from vehicular traffic lanes
	People Riding Bike Share	Bike to transit or make one-way trips. Rely on comfortable and easily understandable bike structure
	People of Color	Fear of exposure to theft, assault or being a target for enforcement
	Low-Income Riders	Rely extensively on bicycles to ride to work. Access to continuous and safe facilities
	People with Disabilities	Use adaptive bicycles that require wider envelope and operate at lower speeds
	People Moving Goods or Cargo	Cannot be accommodated by facilities designed to minimal standards
	Confident Cyclists	Constitute a smaller percentage of total users, most often male. In the U.S., 76% of bike trips are made by men and 87% of competitive cyclists are male.

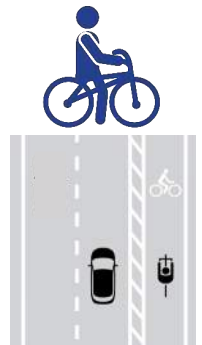
FIG. 27. LEVEL OF TRAFFIC STRESS AND TYPE OF RIDERSHIP

**LTS-1****Interested, but Cautious Riders****SHARED USE PATHS**

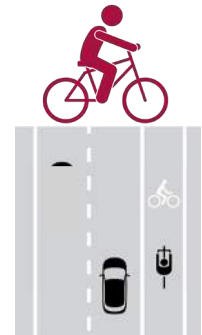
1. Shared use paths are used by pedestrians as well as bicycle users
2. 8 feet min. width with 5-10 feet planted buffer
3. Ideal traffic speeds less than 25 miles per hour
4. Wider Right-of-way widths
5. Pavement surfaces should be based on anticipated usage volumes
6. **Comfortable for all ages and abilities**

**LTS-2****Interested, but Concerned Riders****BUFFERED BIKE LANES**

1. Bike lanes separated by buffers defined by pavement markings and parallel parking
2. 8 feet min. two-ways or 5 feet min. one-way with 5 feet painted buffer
3. Ideal traffic speeds from 20-25 miles per hour
4. Limited Right-of-way widths
5. Add vertical delineation such as candlestick bollards for increased level of perceived protection
6. **Comfortable for most adults**

**LTS-3****Enthusied and Confident Riders****BIKE LANES**

1. Dedicated bike lanes that are adjacent to traffic lanes
2. 8 feet min. two-ways or 5 feet min. one-way with 5 feet
3. Ideal traffic speeds more than 25 miles per hour
4. Dedicated bike lanes that are adjacent to traffic lanes
5. Limited Right-of-way widths
6. Reduce curbside and intersection conflicts through access management
7. **Comfortable for confident bicyclists, who prefer not to share with the vehicles**

**LTS-4****Strong and Fearless Riders****BIKE ROUTES**

1. Identifying a specific route as a 'Bike Route' is the simple alternative when immediate infrastructure improvements to roadway network are not feasible
2. Wayfinding signage such as 'share the road' or directional signage can be installed to guide the users to destinations or other connections
3. Traffic calming measures are required to manage speeds
4. **Uncomfortable for most users**





## Safety Paths/Trails

Orion Township's safety path program is a constantly expanding network of over 50 miles of asphalt paths that provide safe, designated areas separated from roadways for pedestrians, cyclists, and other users in areas where sidewalks were not historically present along county or state roadways throughout the Township. The safety path program was first established as a plan in 1978 and has since grown with the direction of the Safety Path Advisory Committee, now the Parks and Path Advisory Committee, to be a model program for other developing Townships wishing to provide this essential community facility for residents and visitors through local initiative. Funding for safety paths is provided primarily by a millage originally approved in 1988, with the quarter mill tax re-approved by voters in 1998, 2008, and again in 2018 to last until December 2027. These funds go into the Safety Path Fund and a General Capital Improvement Fund.

### Safety Paths as Transportation Facility

A primary function of the safety path program is to provide a direct community facility for residents that otherwise may not have safe pedestrian access along main roads at the boundary of residential areas. Providing these main road safety paths is crucial to connecting the many residential areas within the Township to other community facilities or commercial areas such as Gingellville. While the automobile is still the primary means of travel in metro Detroit, safety paths provide an alternative for people that may wish to travel this way, either by necessity or choice, such as children, senior citizens, or people simply without access to an automobile.

### Safety Paths as Recreation Facility

Safety paths also play a key role in Orion Township's position as a central recreation area in Oakland County due to the presence of numerous Township, village, county, and state park facilities within the Township. While safety paths function as an essential nonmotorized community facility at the boundary of residential areas, safety paths are also specifically intended to provide links with park facilities, two regional trails, the Paint Creek Trail and Polly Ann Trail, and other community facilities such as schools through a

comprehensive safety path network that provides benefits beyond the Township boundary.

An example of this is the recent fall 2020 completion of a safety path linking the Polly Ann Trail, which runs near Joslyn Road, with the Paint Creek Trail, which cuts across the northeast area of the Township for five miles. This linkage was accomplished through the Township's installation of a safety path along Clarkston Road, east of Lapeer Road, ending at Kern Road and a new landmark bridge over Paint Creek connecting the new safety path to the Paint Creek Trail. Through this connection, the Township safety path network is now directly linked with these two regional trails, and through the Paint Creek Trail, the safety path network is linked with the statewide Iron Belle Trail system, which is planned to ultimately connect Belle Isle in Detroit with Ironwood in the Upper Peninsula.

### Oakland County Trails Master Plan

The 2008 Oakland County Trails Master Plan, Oakland County Pathway Concept provides additional policy support for Township safety paths and regional trails through Orion Township. The County Trail Concept states: "The county pathways system is comprised of a vision to link pathways and greenways throughout Oakland County and Southeastern Michigan. The county concept envisions a hierarchy of pathways consisting of primary and secondary pathways." The Pathway Concept map indicates paths and trails within the Township that have an impact at the countywide trail level. In addition to supporting the Paint Creek Trail and Polly Ann Trail, the County Pathway Concept calls out trails for the areas listed below.

#### West of Joslyn Road/Polly Ann Trail

- Clarkston Road to Independence Township
- West extension of Polly Ann Trail, following a stream between Waldon Road and Maybee Road, to Independence Township

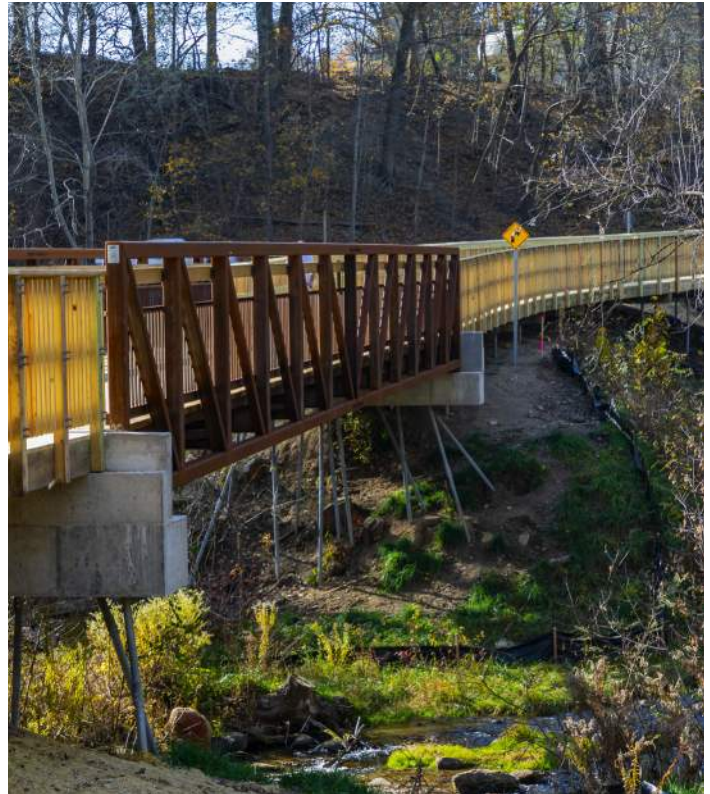
#### East of Joslyn Road/Polly Ann Trail

- Waldon Road, through Bald Mountain State Rec Area, to Oakland Township/Kern Road
- Clarkston Road to M-24/Lapeer Road



## Implementing Safety Paths through Zoning

Through the Zoning Ordinance and Safety Path Ordinance, the Township has historically required property developers to install safety paths as part of development or permitted contribution to the safety path fund for use on projects in other Township locations. These ordinances have been crucial to the continued expansion of the safety path network and for providing the substantial funds and easements necessary for expansion of the network. While all safety path missing links and gaps cannot be closed by developers alone, these ordinances are a valuable part to improving the safety path system and should remain in place going forward. Additional opportunities for ordinance amendments may be needed to require safety paths that are not adjacent to roadways as has been traditionally required. This could include paths through the middle of property to complete key connections, such as a path through mid-blocks that would provide more direct routes for pedestrians to schools or other community facilities, or other direct connections through non-residential areas that again may be more impactful for pedestrians than paths only along roadways. Please refer to the Implementation Plan for more information on this.



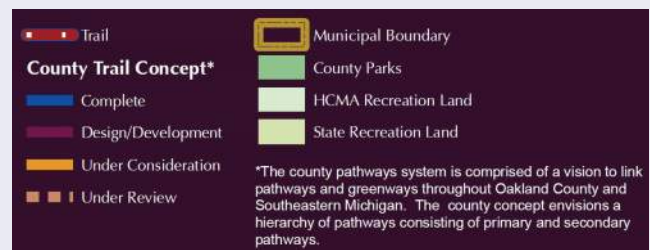
Above: Paint Creek Trail bridge

Source: Orion Township

FIG. 28. 2008 OAKLAND COUNTY TRAILS MASTER PLAN



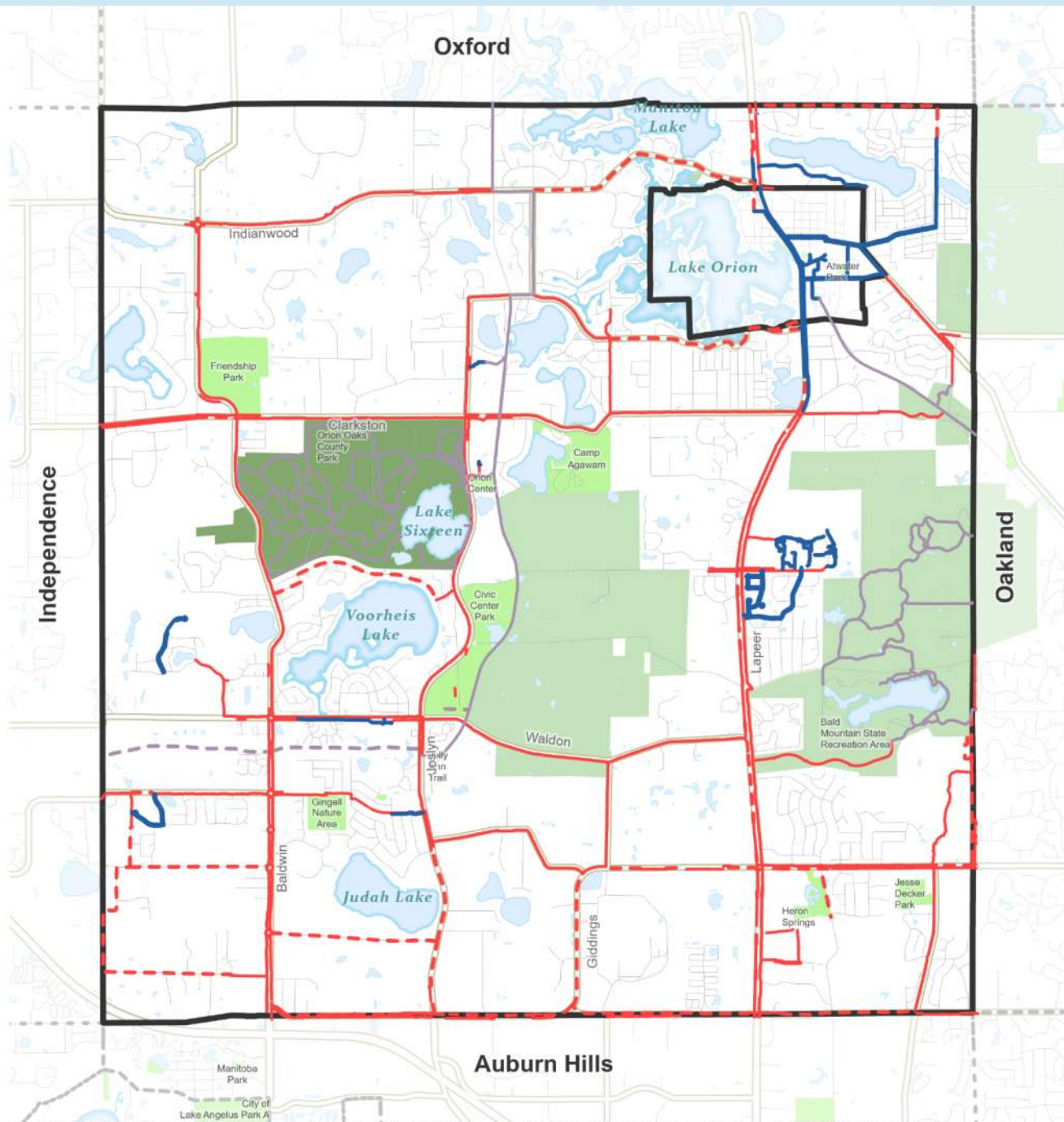
## 2008 Oakland County Trails Master Plan



It should be noted that as the County Trails Plan and these concepts are from 2008, some of these connections, specifically the Waldon Road connection, may no longer be considered a preferred trail route due to Township safety path improvements which have occurred since 2008, such as the Clarkston Road safety path connecting the Polly Ann Trail and Paint Creek Trail.



MAP 15: COMPLETE STREETS/SAFETY PATH PLAN



Data sources: Complete Streets: Orion Township. Roads and Boundaries: State of Michigan. Safety Paths: OHM Advisors. Date Exported: February 09, 2022. ©2022 Giffels Webster.



0 0.5 1 2 Miles

- Proposed Safety Path
- Proposed Sidewalk
- Proposed Trail
- Safety Path
- Sidewalk
- Trail
- County Park
- State Park
- Local Park

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Advancing Communities

**Complete Streets / Safety Path Plan**  
ORION TOWNSHIP





An important and obvious element of the Complete Streets includes the development of a plan for the overall system of streets and roads in a community to improve mobility. This system provides for the movement of people and goods from places both inside and outside the community and make regional connections. The Township is located approximately 30 miles north of Downtown Detroit and located in the northern portion of Oakland County. Interstate 75 (I-75) and Lapeer Road provide regional access to the Township, while Joslyn, Baldwin, Waldon, Squirrel and Silverbell provide more local access from adjacent communities.

The Master Plan includes an overview of the Township's transportation network as it relates to land use. The transportation system provides for the movement of people and goods from places both inside and outside the community. Road rights-of-way also provide places for various public utilities such as water lines, gas lines, sanitary and storm sewers, cable television lines, electrical power, and telephone lines. Because of this combined function, the system of roads in a community can impact economic conditions, environmental quality, energy consumption, land development, and overall quality of life in a community.

## Functional Classification

Over the years during which the majority of roads and freeways were constructed in the United States, the concept of "functional classification" was developed by the Federal Highway Administration (see page 48 for the existing national functional classification). This involved two main elements: mobility and access. Mobility relates to how vehicular traffic is able to flow through or around an area. Access relates to how travelers of the streets access adjacent land uses (primarily through intersections and driveways). At higher levels of mobility, travel speeds and volumes are higher; as a result, access to these roads becomes more limited. Conversely, lower classification roads often feature slower speeds and provide more access points to adjacent land uses.

While this system of classification worked in the past, it is clear that the functionality of roads only takes one type of user into consideration: motorized travelers. Assessing the function of roads in conjunction with non-motorized users is not as clear. Motorists learn to drive understanding the trade-offs of roadways: freeways run faster than surface streets, but they can't be used to get directly to their destination. However, with non-motorized uses, the function of roads isn't as black and white. For example, if a pedestrian or cyclist wants to go somewhere, generally speaking, their travel time may not be impacted by the type of road on which they travel. The decision of what route to use depends largely on what the destination is, the directness of the route, how safe it is to get there, and the availability of transportation facilities like pathways/sidewalks, crosswalks, and bike paths. The idea of mobility for non-motorized users goes beyond simply the efficiency of roadway travel and includes a wider range of barriers to mobility that partly correspond with functional road classifications, but also correspond to land uses, overall community safety, and the condition of transportation facilities.

## Jurisdiction

The maintenance and improvement of all roads serving the Township are primarily controlled by the Road Commission for Oakland County (RCOC). Some roads are under the jurisdiction of the Michigan Department of Transportation (MDOT). However, the developments that generate the traffic on these roads are approved by the Township. The Township should continue the on-going collaboration with the county and state for funding sources, planning and implementation to serve future needs of the residents. When appropriate, information will be shared regarding developments that are expected to significantly increase traffic



## Long-Range Street Classification

For the purpose of long-range planning, including designation of future right-of-way widths, roads are classified as follows:

**Interstate Highway / Regional State Trunkline.** Divided highways under that jurisdiction of MDOT or FHWA that principally serve to move large volumes of vehicular traffic over long distances, providing connections within and beyond Orion Township. Right-of-way varies but is typically 180 feet or more.

**Major Thoroughfare.** An arterial road of great continuity which is intended to serve as a large volume traffic-way for both the immediate municipality area and region beyond, and which is designated on the Thoroughfare Plan / Future Right-of-Way map as a major thoroughfare. Major thoroughfares shall also have an existing or proposed right-of-way of one hundred twenty (120) feet or more.

**Collector Road.** A road used primarily to carry traffic from a minor road to a major thoroughfare, and which is designated on the Thoroughfare Plan / Master Right-of-Way map as a collector. Collector Roads shall have an existing or proposed right-of-way of 86 feet or more, but less than 120 feet.

**Local Road.** A road of limited continuity primarily providing access to abutting properties which is designated with an existing or proposed right-of-way of less than 86 feet.

## Thoroughfare Plan / Master Right-of-Way Plan

The Thoroughfare Plan / Master Right-of-Way Plan consists of a map that indicates the existing or planned right-of-way widths for roads in Orion Township. Right-of-way widths are established based on research that indicates the required road specifications to provide various levels of service, functionality, and public use in furtherance of protecting the health, safety, and welfare of the public. The foundation for this plan is the Master Right-of-Way Plan published by the Road Commission for Oakland County. While the Road Commission publishes this Master Right-of-Way Plan, Orion Township believes that further study may be required on some roadways to justify the additional width proposed for some of the right-of-way designations. This may lead to future amendments of this map after these studies are complete. The right-of-way plan is an important planning document because setbacks and other development standards should be established in relationship to the existing or future right-of-way width. The Master Right-of-Way Plan also sets forth distinct classifications based on right-of-way width.

## Planned Road Improvements

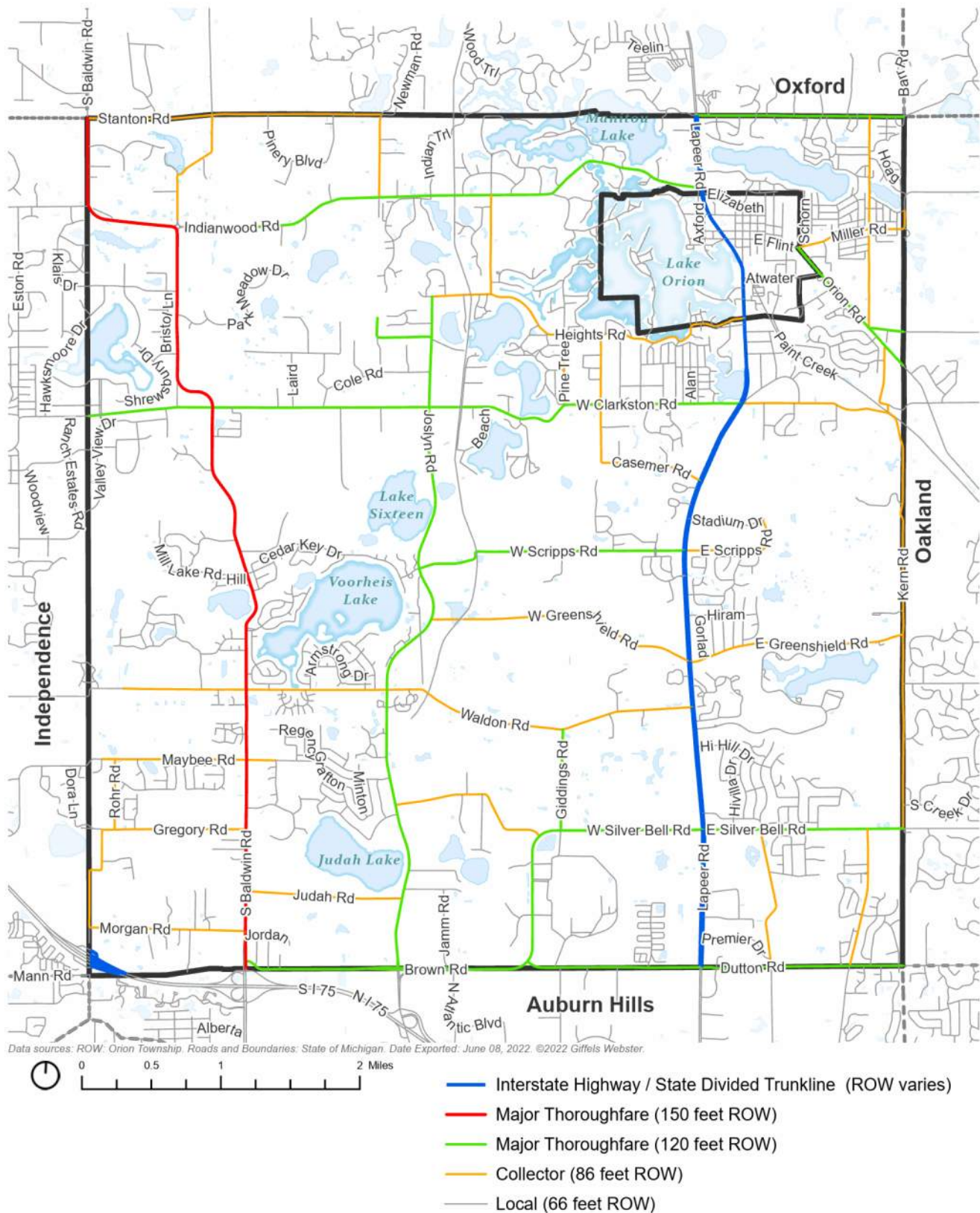
According to SEMCOG's 2045 Regional Transportation Plan (RTP) and 2020-2023 Transportation Improvement Program (TIP), a number of roadway improvements are planned or are being studied for Orion Township as follows:

TABLE 8. TIP ROADWAY IMPROVEMENTS BY ROAD COMMISSION OF OAKLAND COUNTY: 2020-2023

Project	Limits	Proposed Work
Orion Road	Stoney Creek Road	Roundabout
Silverbell	Brown, Giddings, Silverbell from Jamm Rd to M-24 (Lapeer Rd.)	Resurface
Waldon Road	Clintonville to Baldwin	Pave gravel



MAP 16: THOROUGHFARE/MASTER RIGHT OF WAY PLAN





## Corridor Planning

There are several key corridors within the Township that have unique characteristics that should be considered as new development or redevelopment of adjacent land occurs. These considerations are unique to each corridor, as the function, volume of traffic, ownership and land uses adjacent to these roads varies and plays an important role in the regulation and development of these areas.

### Brown Road

Brown Road is a unique east-west corridor within the community in that it has several characteristics that are not shared with other corridors in the Township. Serving as the Township's southern border, with Auburn Hills bordering Orion Township to the south, only the developments located on the northern half of this right-of-way are regulated by Orion Township standards. The properties within this area are currently zoned Brown Road Innovation Zone (BIZ) and are subject to unique design standards that distinguish the corridor along the northern side. These flexible standards encourage building frontages along the roadway (instead of parking), screening when parking is permitted in the front yard, as well as standards to encourage multiple buildings on a single lot. See Appendix C for design recommendations for the areas in the mixed use area known commonly known as the BIZ district.

As the area has developed under the BIZ standards, which was amended after the 2015 Master Plan, there have been significant developments that file in key portions of the corridor. The Township has identified one of the few remaining vacant parcels for redevelopment (Economic Development Plan, pg. 102), meaning future endeavors may require redevelopment of older structures or land use patterns. This process will need to promote collaboration between adjacent property owners in the form of shared access and possibly lot combinations. Other key elements to accomplish in this area include the completion of the safety path along the north side of Brown Road and the further consolidation of curb cuts to eliminate vehicular-pedestrian conflicts.

## Lapeer Road

Lapeer Road is a major north-south trunkline thoroughfare located on the eastern half of the Township, beginning at the south end at Interstate 75 (I-75) providing access to the Village of Lake Orion, Oxford and other communities further north in the thumb area. The route terminates at M-25 in Unionville, just east of Bay City near Saginaw Bay. This MDOT owned and operated road is one of the most heavily traveled routes in the Township. Its proximity to I-75 means this corridor serves as the gateway to many regional visitors, as many traveling through this corridor may not stop within Orion Township. In addition, many local residents and businesses that rely on this corridor depend on traffic flow and design standards to accommodate their developments and provide a blueprint for the future of corridor. This plan seeks to identify key areas and standards enforced along the corridor that are in need of refinement in order to provide a better experience for all users.

One key landscape feature that would enhance the transformation of this area would be the introduction of street trees within the right-of-way Lapeer Road. There are two challenges to this: one is safety standards used by the Michigan Department of Transportation for separation of roadside objects from moving traffic and 2) overhead power lines along both the east and west sides of the thoroughfare. As this area evolves, the Township should explore the potential to introduce entryway design standards and screening elements that feature smaller tree species or preferred hedges that are less of a roadside hazard and will not grow into power lines. There are other landscape and streetscape amenities that can enhance the corridor including tall ornamental grasses and vertical art installations. Also, larger deciduous trees should be planted within the private frontage, close to sidewalks and pathways, to provide shade and protection from the elements provided they are not in the impact area from overhead power lines. The concept sketch below is an example of how screening can incorporate low hedgerows to screen parking areas, decorative fencing and brick posts to define driveway entries and parking lot corners, deciduous trees and ground cover.

FIG.29. LAPEER ROAD SCREENING CONCEPT



## Baldwin

Baldwin Road has seen perhaps the most physical change among all of the Township's corridors since the last Master Plan updated. Between 2017 and 2020 the roadway was widened from two to four lanes and five roundabouts were added at key intersections. These changes, along with the continued development of the safety pathway along the corridor, have piqued development interest for both residential and non-residential development.

The southern portion of this corridor from Judah to Maybee is located in the Gingellville Village Center, which regulated by the Gingellville Village Center Overlay District. This district is envisioned as a mixed-use village area that will incorporate and preserve the existing historic elements while providing design guidelines that require a complementary architectural style. New developments are encouraged to provide a transition from commercial or multiple family to lower density residential uses including single family detached through appropriate screening while maintaining pedestrian linkages. Missing middle housing types are envisioned in this area. As village-style development occurs along the south end of this corridor, the Township may begin to see increased pressure for similar developments further north along the corridor. Steps should be taken to ensure that and the recommendations in this Master Plan are implemented and that high intensity developments do not encroach on existing areas planned for lower density land uses. Additional screening, facade and design standards may be appropriate for other areas of this corridor (outside of Gingellville) to promote a harmonious streetscape design. Baldwin Road, north of Indianwood, has a much different character. See Appendix C for an overview of the corridor treatment for this area.



Source: Giffels Webster 2020





## Distinct Natural Corridors

There are several corridors in the Township where trees, natural vegetation and viewsheds create unique experiences for those passing through by vehicle, bicycle or by walking. Preservation of the natural features near the road right-of-way by use of open space development techniques is envisioned. In exchange for preservation of road frontage with natural features, lot size reductions can be allowed so that there is not loss of dwelling unit yield. Exemplary projects could qualify for density bonuses.

The following corridors are designated as priority for natural corridor preservation:

1. Indianwood Road;
2. Baldwin Road, north of Indianwood Road;
3. Coates Road, north of Indianwood Road;
4. Designated Natural Beauty Roads;
5. Scripps Road and Greenshield Road through Bald Mountain Recreation Area;
6. Waldon Road; and
7. Clarkston Road

## Natural Beauty Roads

Certain roads in Orion Township are classified as Natural Beauty Roads, in accordance with Michigan Act 150 of 1970. The goal of the Natural Beauty Roads Act is to identify and preserve designated roads in a natural, essentially undisturbed condition. Roads considered eligible for this designation are federal local roads that have unusual or outstanding natural beauty by virtue of native vegetation or other natural features. Widening, mowing, spraying and other maintenance or improvement activities may be restricted or prohibited on designated Natural Beauty Roads.

Natural Beauty Roads in Orion Township include:

- Kern Road from Orion Road south to Clarkston Road;
- Clarkston Road from 1,000 feet west of the south leg of Kern Road to the north leg of Kern Road;
- Nakomis Road north of Cayuga, almost to the Township line; and
- Greenshield Road.

The Department of Natural Resources and the County Road Association have developed a list of guidelines and criteria for designating natural beauty roads. The criteria for designation, available on the Michigan DNR website (<http://michigan.gov/dnr/>), include:

1. **Character of Road:** Must have outstanding natural features along its borders, including native trees, shrubs, wildflowers, grasses, or natural vistas.
2. **Length:** Normally a minimum of one-half mile.
3. **Roadside Development:** Should have little to no development along them.
4. **Road Bed:** May be dirt, gravel or hard surface.
5. **Function of the Road:** Should function as a local access road.
6. **Speed:** Intended to be low speed roads (25-35 mph).

Source: Guidelines for Designation of Natural Beauty Roads (<http://www.michigan.gov/dnr/>)



# Future Land Use



# Future Land Use Designations

## Residential Districts

The residential category includes a number of districts based primarily on density as expressed in dwelling units per acre. The primary land use in the residential categories is detached single-family dwelling units, while other types of land uses such as schools, places of worship, parks, and attached single-family dwelling units, such as attached condominiums are appropriate in certain locations. In multiple family districts, other building types include townhouses, stacked flats, triplex and quadplex units, cottage court bungalows, and carriage houses are permitted.

It is intended that development in the residential land use categories be tied to overall density in terms of units per gross acre, rather than minimum lot sizes. This will permit greater flexibility in the development and redevelopment of land and presents an opportunity to create parks, open space, and other types of neighborhood features without reducing the overall potential yield on any particular piece of property. Final density yield will depend upon the unique environmental features of a site. For example, a single family detached residential project with regulated wetlands or steep slopes will like not have the same final unit count as a site in the same planning area that does not have these environmental constraints.

Providing vehicular and non-motorized connectivity between adjacent developments is a priority. Stub streets should be provided in all residential developments that abut vacant land or compatible land with redevelopment potential.

**Single Family Low Density Residential** is planned for areas with existing and low and medium density development and are primarily located in the north and west portions of the Township. These areas are planned to develop at a density of 0.55 dwelling units per gross acre, with a range of 0.3 to 0.7 dwelling units per gross acre. As an example, a 10-acre parcel without environmental limitations could yield about 5 lots with 1.5 acres per lot under conventional development. With open space development techniques, lot sizes may be reduced but the same effective unit yield would be realized unless the zoning district provided for a density bonus.

Some of the areas in this planning category that are rural and semi-rural in nature lack municipal sewer and water, are accessed from unpaved roads, or have similar challenges in terms of site development. Areas that are more capable of supporting development will remain rural residential and support new homes and, in some cases, small farming operations. The correlating zoning classification is the SE, Suburban Estates zoning district.

**Single Family Medium Density Residential** is planned for areas with existing moderate density development and areas most capable of supporting development due to adequate utility services (municipal sewer and water) and paved roads. Because some of these areas border lakes, cluster developments are encouraged to preserve open space areas and lake access. The density in these areas is planned at 1.2 dwelling units per gross acre, with a range of 0.7-1.5 units per acre. However, the actual density may vary depending on the area needed for the street right-of-way and the impact of environmental constraints. The correlating zoning classification is the SR, Suburban Ranch zoning district with a minimum lot size of 30,000 square feet.





**Single Family High Density Residential** is the highest density single family category with a density range of 3 to 5 dwelling units per acre. While the actual density will depend on the area needed for the street right-of-way, lot sizes in such areas range from 8,400 to 14,000 square feet each. A majority of the areas planned for Single Family High Density residential are clustered around the Township's lakes, near Gingellville Village Center and the Village of Lake Orion, and located adjacent to the Township's major corridors. Much like the medium density areas, the clustering of residential homes around lakes allows more people to take advantage of the amenity while also providing sufficient recreation space. These areas are typically flatter and can thus accommodate a greater number of units. The presence of adequate roads and utilities are also of importance. The correlating zoning classifications include the R-1/R-2/R-3, Single Family Residential zoning districts at a minimum lot size of 14,000 square feet, 10,800 square feet and 8,400 square feet respectively. This classification also includes the Orion Lakes Manufactured Home Community zoned MHP, Mobile Home Park. However, the classification does not provide for the expansion of mobile home parks in other portions of the Township.

**Multiple Family Low Density Residential** is planned for selected areas along Lapeer Road (M-24) as a buffer from the more rural residential neighborhoods to the east and west of the corridor. The planned density for these areas is between 5 to 7 dwelling units per acre, depending on the number of rooms per unit (defined in the Zoning Ordinance). Proximity to a major thoroughfare, utilities, commercial amenities and the limited presence of significant natural resources makes these areas viable for multi-family uses. The correlating zoning classification is the RM-1, Multiple Family Residential zoning district at a density of 21 rooms per acre.

**Multiple Family Medium Density Residential** is planned for areas primarily within the southwestern portion of the Township with some limited areas also identified along Lapeer Road and south of the Village of Lake Orion. Some of these areas have pre-existing development, with limited available land for expansion. Other areas are targeted closer to the Village Center district where higher residential densities are supported. These areas planned at a density of between 7 to 12 dwelling units per acre at a density of up to 36 rooms per acre (defined in the Zoning Ordinance). The proximity to a major thoroughfare, utilities, commercial amenities and the limited presence of significant nature resources has made these areas suitable for higher-density residential development. The correlating zoning classification is the RM-2, Multiple Family Residential zoning district, which will require updates to reflect more rooms per acre and to provide regulations for missing middle residential dwelling types. Currently the district is structured to permit traditional garden apartment units.



## Office Districts

The Orion Township Future Land Use Plan identifies areas for office developments of two (2) types: General Office and Office Research. Office uses are limited to those which function during daytime business hours, have limited truck traffic and have no outside activities. Because of their limited impact, General Office uses can be placed as a transition between single family residential areas and more intensive nonresidential areas.

**Office Research** uses are primarily located within the south Lapeer Road corridor, within the northern portions of the Brown Road Innovation Zone and scattered throughout the industrial parks along Silverbell and Giddings Roads. These kinds of uses seek locations on major thoroughfares where there is good access for employees, viable truck routes, and close proximity to an interstate.

These areas are intended to provide employment opportunities in many varied research fields, but all with the characteristic of having little or no impact on nearby residential areas. Intended uses include research, computer applications, pilot manufacturing, administrative, automotive technologies, etc. The classification is also intended to encourage the development of planned office and business parks; to promote excellence in the design and construction of buildings, outdoor spaces, transportation facilities and streetscapes; to direct the development of workplaces consistent with the availability of public facilities and services, and; to continue to complement the vitality and quality of life in nearby residential neighborhoods. Development in these areas should take place on larger parcels of land with generous setbacks intended to create an open space setting. Correlating zoning districts include the Brown Road Innovation Zone (BIZ), Office and Professional (OP) and Industrial Park (IP).

**General Office** uses in the Township are implemented through use of the Office and Professional District (OP) of the Zoning Ordinance and located predominantly within the Lapeer Road corridor. General Office areas are intended to provide for development on small sites and to be limited to uses that will be relatively compatible with residential uses. Direct access to a major thoroughfare or collector street is key to the viability of these uses, which include administrative offices of all types. Professional offices for administrative services, including medical, are anticipated to be the predominant office use, while service type uses are also permitted under certain situations. Additionally, it is recognized that these area need to be flexible to accommodate other low-impact commercial uses. Examples are personal service establishments (e.g., hair salons), small low-impact specialty retail shops, restaurants (sit-down and carryout restaurants, but no drive-through operations), day care uses, pharmacies, recording studios, and studios for painters, photographers, decorators, and similar vocations. The standards applicable to these areas reflect the intent to be able to place the uses on small parcels of land, with comparable small setback requirements (see the Zoning Ordinance).



## Commercial and mixed-use areas

The Future Land Use Map includes four commercial or mixed-use categories to accommodate a range of residential, office, commercial and industrial uses as standalone uses, or within mixed use buildings or areas. The majority of areas planned for these areas currently have a mix of these uses, which are permitted to improve, develop or redevelop as permitted by the Zoning Ordinance or the use guidelines in this plan

**Neighborhood Commercial** uses are located primarily along Baldwin and Lapeer Road (M-24) corridors with the greatest concentration planned for the M-24 corridor. These areas are intended to be located in close proximity to the residential neighborhoods in order to meet the day-to-day shopping needs of nearby residents. Neighborhood commercial activities may be located either individually or in small centers that serve one or more neighborhood trade areas. Planned uses include food stores, hardware and drug stores as well as personal service establishments, all of which can be found within the Restricted Business (RB) zoning district.

**General Commercial** is planned along the Baldwin and Lapeer Road corridors and is intended for commercial uses that supply a larger and more diversified number of goods than those in the Neighborhood Commercial classification. The intended character of these areas is comparable to those permitted within the General Business (GB) zoning districts which includes a wide range of regional commercial uses such as large-format retail, supermarkets and drugstores, discount stores, department stores along with facilities such as automobile dealers, other vehicle related services, and commercial recreation.

**Village Center** is planned for the Gingellville sub area exclusively. This portion of Baldwin Road between Maybee and Judah Roads is one of the oldest commercial/residential centers in the Township and has a rich history. The intended mix of uses includes those in the Neighborhood Commercial, General Office, Multiple Family Residential and Single-Family Residential land use categories. Also, missing middle development, which envisions many

house-scale building types such as triplexes, quadplexes, small townhouse cluster, and cottage court bungalows is anticipated to be part of the residential mix in this area. Density will vary in this district and is controlled by form-based zoning. The classification intends for the integration of commercial and residential uses in an attractive and well-designed environment. The classification is also intended to encourage the development of a pedestrian friendly atmosphere, an attractively landscaped boulevard and sidewalks, rear and side parking lots, unified architectural theme and streetscape, and aims to continue the vitality and quality of life in nearby residential neighborhoods through the creation of public spaces and amenities. These developments should be designed with placemaking and pedestrian amenities as an integral component of site development. The correlating zoning district is the Gingellville Village Center Overlay District. See the Gingellville Sub-Area in this Chapter for additional land use considerations regarding the Village Center.

### Industrial/Commercial/Residential Mixed-Use

Development is planned to provide a mix of industrial, commercial and residential uses in the area near Brown Road between Baldwin and Joslyn and along Lapeer Road between Brown and Waldon. The intent is a mix of industrial, residential, commercial, medical and office uses and ancillary commercial uses within a well-planned business setting. Large-format retail may be considered along the Brown Rd. frontage. Density will vary in this district and is controlled by height, bulk, and setback regulations in the applicable zoning district. The Township will also promote economic development initiatives for the area. Economic incentives may include Brownfield Redevelopment, Local Development Finance Authority (LDFA), Industrial Facilities Tax Exemption (IFT), Tax Increment Financing (TIF), infrastructure investments and State grant programs. Redevelopment projects will be reviewed by way of a Planned Unit Development for those projects which deviate from the listing of permitted/special uses. Specific zoning regulations are incorporated within the Light Industrial (LI), Brown Road Innovation Zone (BIZ) and Lapeer Road Overlay zoning districts.





## Industrial

**Research/Light Industrial** areas are intended to provide locations for research, laboratory and light industrial development including scientific research and development, training, and production of prototype products, plans or designs. Accessory commercial and office uses are also encouraged. Such uses are intended to be enclosed within a building and any external effects are not to be experienced beyond the property boundaries. This classification is further intended to encourage the development of a campus-type setting; to promote excellence in the design and construction of buildings, outdoor spaces, transportation facilities and streetscapes; to direct the development of workplaces consistent with the availability of public facilities and services, and to work within the confines of the existing natural features. Correlating zoning classifications include Limited Industrial (LI) and Industrial Park (IP).

**Heavy Industrial** is planned for the General Motors plant exclusively which is located at the southeast corner of Giddings and Silverbell Roads. The classification is intended to accommodate manufacturing and non-manufacturing uses that, in contrast to research and light industrial uses, may negatively impact the environment and adjacent land uses. Presently no additional land is proposed to be included within this land use classification. The correlating zoning classifications is the IC, Industrial Complex zoning district.

## Other

**Institutional** is located where existing schools, places of worship, public buildings and cemeteries are currently in operation within the Township. Because such uses are permitted in a variety of zoning districts, the correlating zoning classifications are too numerous to mention. Institutional uses are permitted within nearly any zoning district within the Township.

**Recreation** is the second largest land use within the Township. The State and County own and operate three very large tracts of land, while several smaller pieces are owned and operated by the DNR and/or the Township. This category also includes private recreation, the majority of which is associated with a golf course and/ or a private conservation easement. These uses are scattered throughout the Township, with the greatest concentration within the northern portions of the community. The correlating zoning classifications are the REC-1, and REC-2, Recreation zoning districts. All public non-motorized trails within the Township are also designated recreation.

**Special Purpose** is a very limited land use category and is presently only planned for the area known as Olde World Canterbury Village. While the correlating zoning classifications (SP-1/SP-2, Special Purpose) permit a mixture of uses, the only site taking advantage of this classification consists of gift shops, a restaurant, cider mill and church.

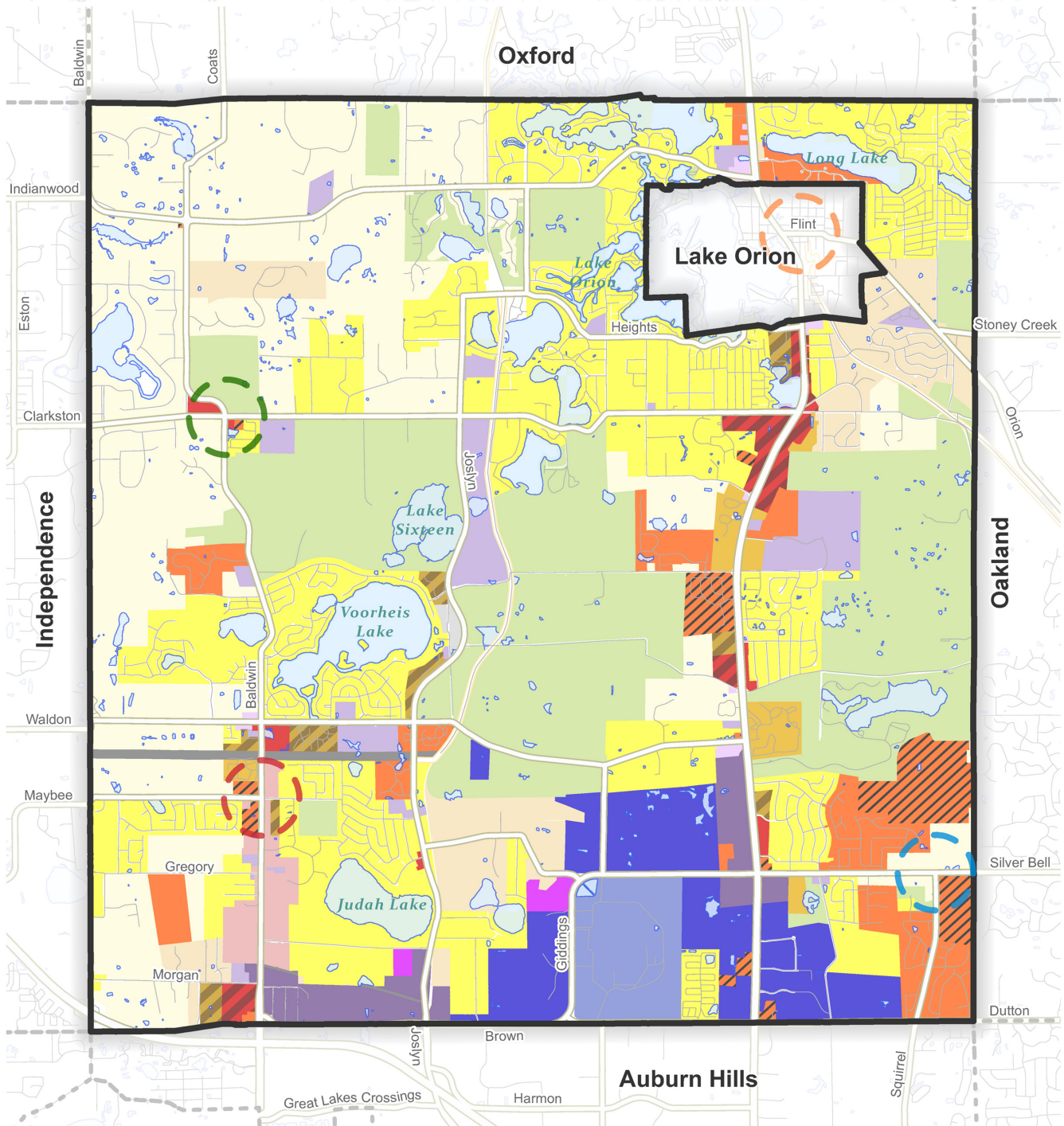
**Utility Owned land** is located exclusively within the DTE utility corridor that extends from the western parcel perimeter to Giddings Road just south of Waldon Road. However, there is no correlating zoning classification because the above noted area is actually zoned for REC-2 use.

**Special Circumstance** land use designations indicate areas that have legal agreements that regulate the density and layout of the subdivision. These areas are typically single family or attached residential in nature. The density map (Map 15) provides the regulated density of the residential developments included in this designation. This category also includes areas that have conditional rezoning agreements in place.

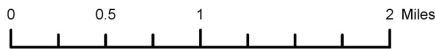
**Planned Unit Developments** are sites that have been approved through the Township's Planned Unit Development process and have established development agreements. The density map (Map 15) provides the regulated density of residential developments included in this designation.



MAP 17: FUTURE LAND USE



Data sources: FLU: Orion Township. Roads and Boundaries: State of Michigan. Date Exported: July 26, 2022. ©2022 Giffels Webster.



This map is intended to show generalized land use and is not intended to indicate the precise site, shape or dimension of areas. These recommendations have a long-range planning horizon and do not necessarily imply that short-term zoning decisions are appropriate.

Refer to Map 14 for the Residential Density Plan.

Public non-motorized pathways are designated as Recreation.

- Special Circumstance
- Planned Unit Development
- Single Family Low Density
- Single Family Medium Density
- Single Family High Density
- Multiple Family Low Density
- Multiple Family Medium Density
- General Office
- Office Research
- Neighborhood Commercial
- Core area of 15-min neighborhood



- General Commercial
- Village Center
- Industrial / Commercial / Residential Mixed Use
- Research / Light Industrial
- Heavy Industrial
- Institutional
- Recreation
- Special Purpose
- Utility Owned

## Future Land Use

ORION TOWNSHIP



TABLE 9. PLANNED DENSITY

FLU	Zoning	Density*
SF Low Density	SE	0.3 – 0.7 units / acre
SF Medium Density	SR	0.7 – 1.5 units / acre
SF High Density	R-1/R-2/R-3	3 – 5 units / acre
MF Low Density	RM-1	5 – 7 units/acre
MF Medium Density	RM-2	7 – 12 units/acre
General Office	OP	
Office Research	BIZ / OP	
Neighborhood Commercial	RB	
Village Center	Gingellville Village Center Overlay	
General Commercial	GB	
Res/Comm/Ind Mixed Use	BIZ / Lapeer Overlay	
Research Industry	LI	
Heavy Industry	IC	

\* Per gross acre excluding regulated wetlands. Note: Planned density is not a guarantee of development yield. This future land use map is intended to show generalized land use and is not intended to indicate the precise site, shape or dimension of areas. These recommendations have a long-range planning horizon and do not necessary imply that short-term zoning decisions are appropriate.



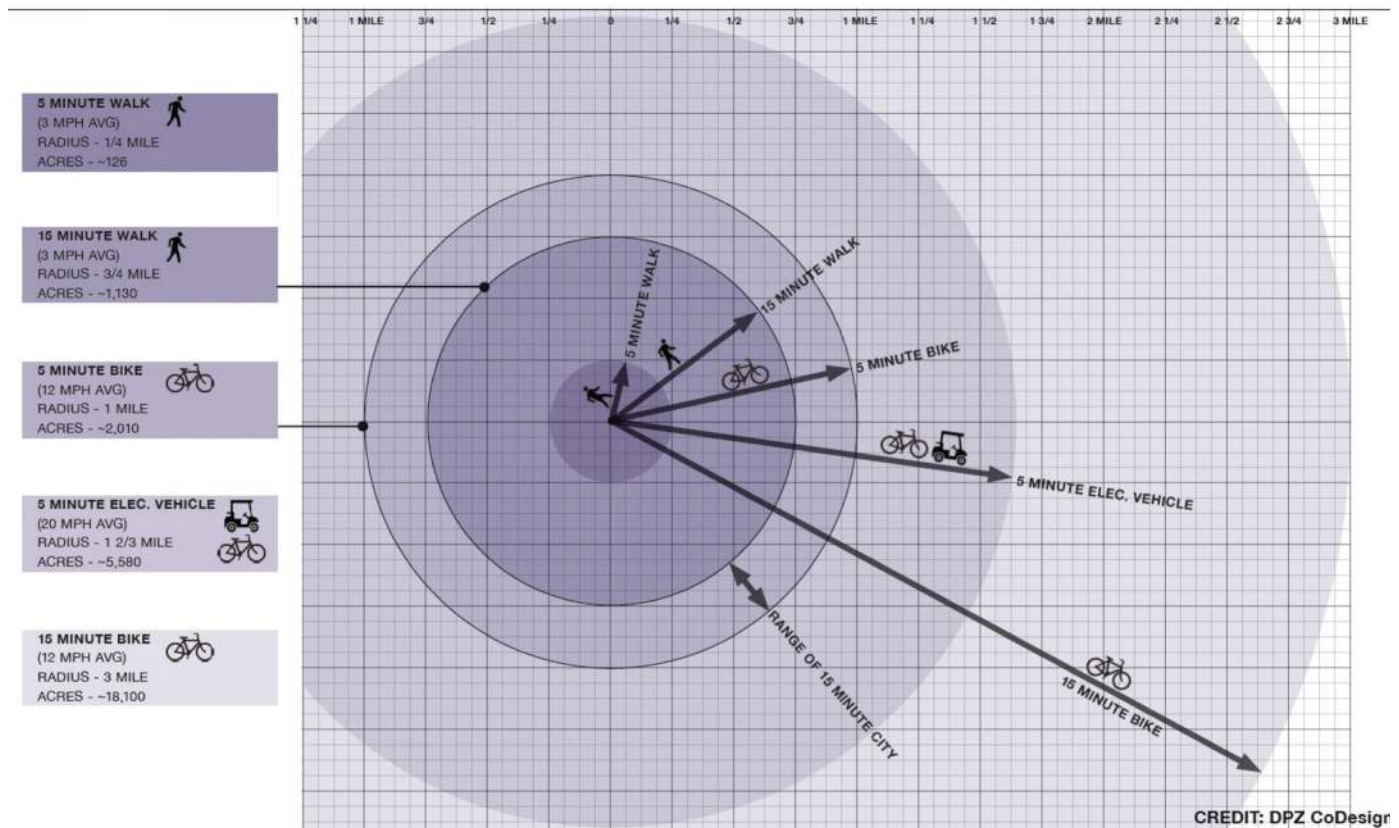
# 15-minute neighborhoods

## Introduction

As part of the Township's analysis of land use and transportation, a new concept has been introduced as part of this Master Plan update known as the 15-Minute Neighborhood. This is an accepted planning concept that is becoming more mainstream; it focuses planning efforts on areas that are larger than individual neighborhoods. The difference between the 15-Minute Neighborhood concept and typical planning focus areas or corridors that may have special considerations, is that 15-Minute Neighborhoods are defined solely by travel time and distance to a core mixed-use center by either walking or biking.

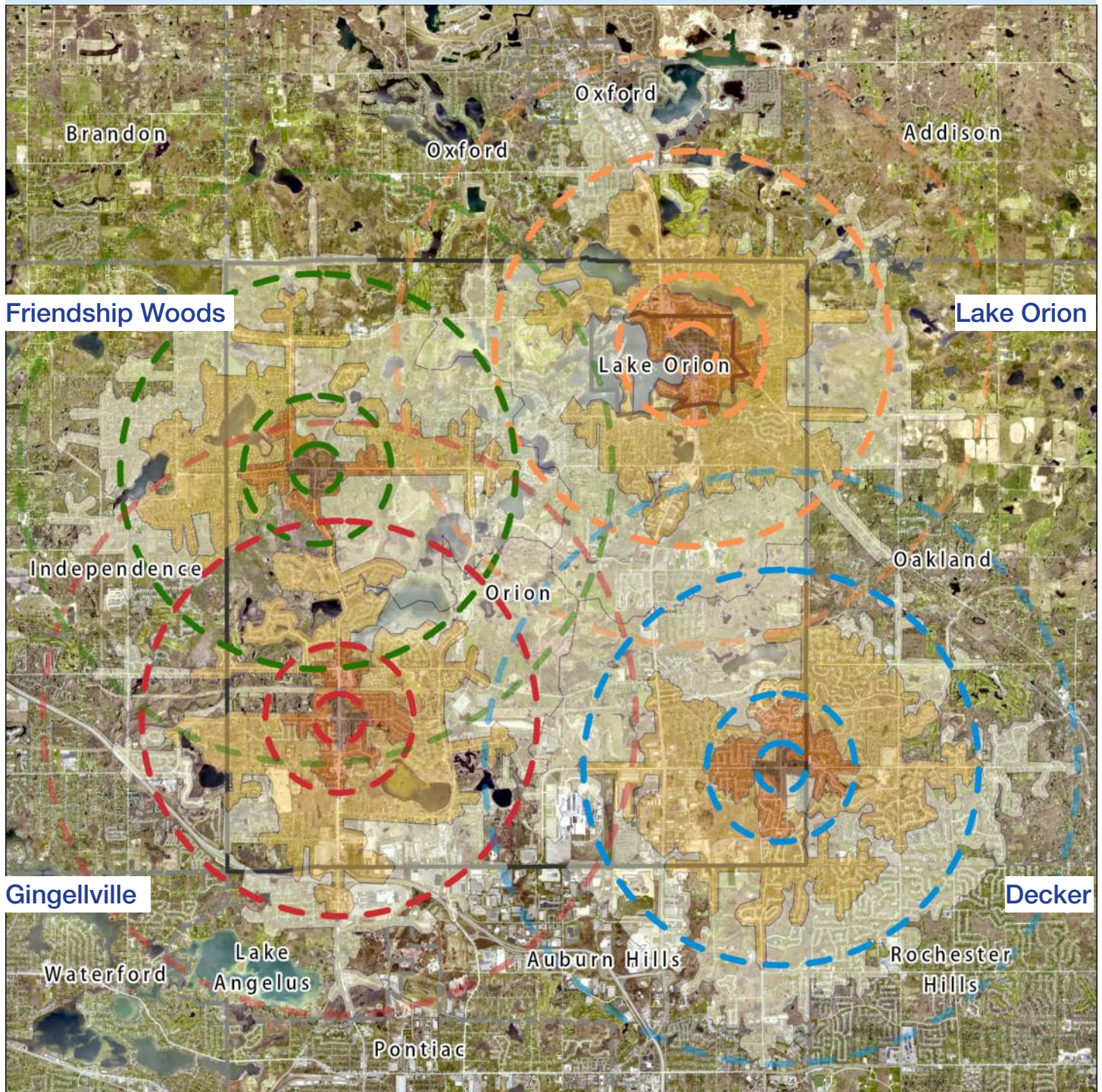
The 15-Minute Neighborhood concept is based primarily on how far a person can walk or bike from a core mixed-use center. It could be measured in 5, 10 or 15-minute increments for each mode of travel based on the average speed of travel. Five minutes (1/4 mile) is generally a reasonable amount of time a person may choose to travel by walking for a short trip in a mixed-used setting, and 15 minutes is representative of a 3 mile easy bike ride. These travel areas are indicated as concentric circles radiating from a defined center, with darker shaded areas closer to the center and lighter shaded areas as you move away from the center towards the 15-minute travel boundaries.

FIG.30. 15-MINUTE NEIGHBORHOOD CONCEPT





MAP 18: 15-MINUTE NEIGHBORHOODS



- 1/4 mile = 5 minute walk (3 mph)
- 3/4 mile = 15 minute walk (3 mph)
- 2 miles = 10 minute bike ride (12 mph)
- 3 miles = 15 minute bike ride (12 mph)

- 1| **Lake Orion Village**
- 2| **Gingellville Village** (Maybe & Baldwin)
- 3| **Decker Hamlet** (Squirell & Silverbell)
- 4| **Friendship Woods Hamlet** (Clarkston & Baldwin)



In reality, 15-minute travel time is dependent on the existing sidewalk/pathways network. When you take existing paths into consideration, the 15-minute neighborhoods appear more of an organic nature as shown above. The concentric rings show how these areas could grow if more robust non-motorized paths are provided. As part of this Master Plan update, four service core areas have been identified as center of 15-Minute Neighborhoods.



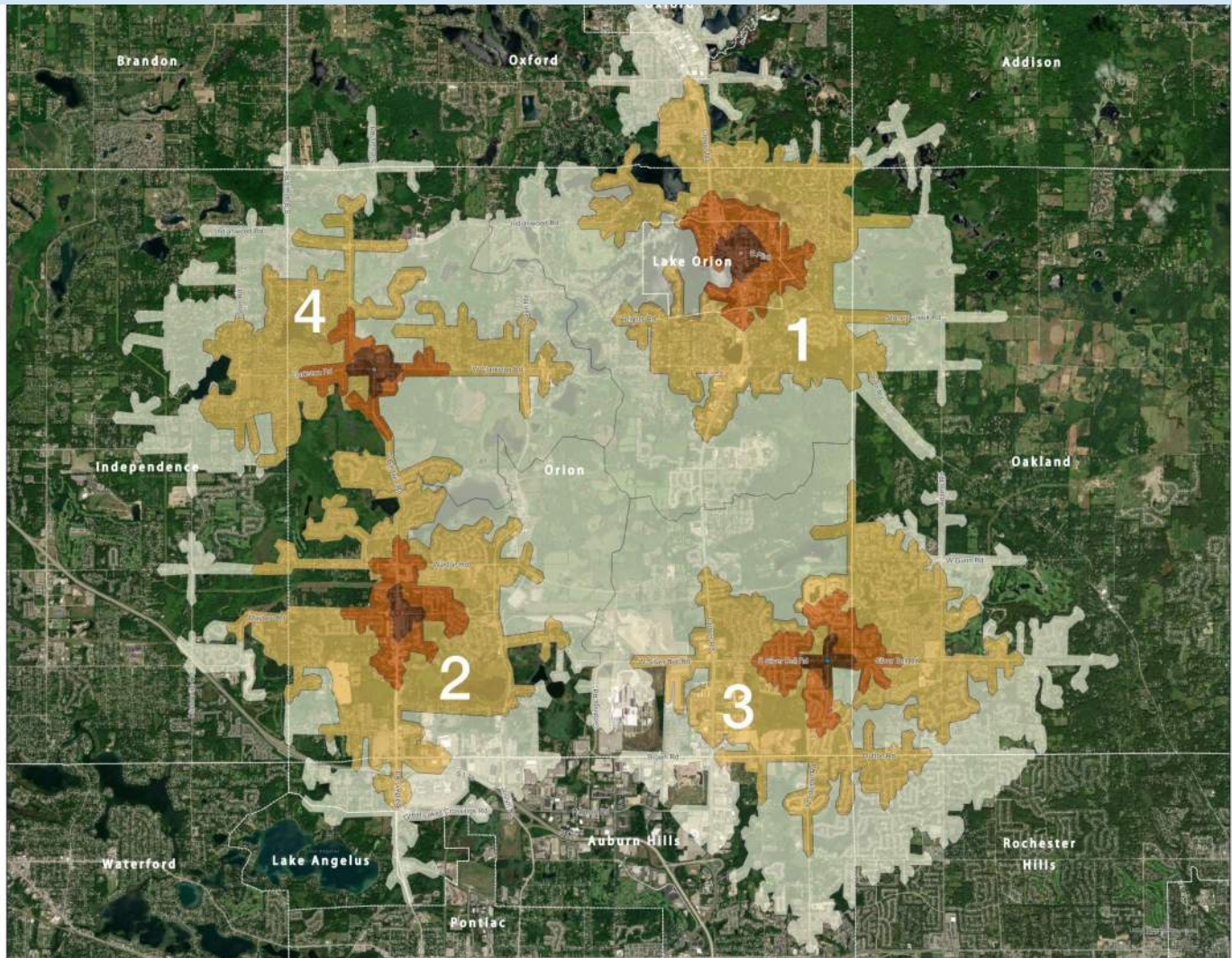


## Village and Hamlets

As the 15-Minute Neighborhood is a larger area than individual neighborhoods or subdivisions, the center of these areas can be prime locations to provide facilities that serve multiple neighborhoods and these centers should also be accessible by vehicular travel, though this does not define the concept. The primary purpose of the concept is to provide a central area, either a “village” center or “hamlet”, that provides some or all of your daily needs and amenities (food, services, goods, parks, etc) by walking or biking for 15 minutes or less from your home.

- **Village.** A mixed-use area with a small-town downtown character: Lake Orion (Flint & Broadway) & Gingellville (Maybee & Baldwin). The Village of Lake Orion is governed by its own Master Plan and Zoning Map. As such, the Orion Township Master Plan update will not address areas within the boundaries of the village. It will address non-motorized connections to the village, and it will consider the Gingellville/Village Center 15-Minute Neighborhood area.
- **Hamlet.** A small settlement with some mix of uses, but containing a form that is more rural in character: Decker (Squirrel & Silverbell) & Friendship Woods (Clarkston & Baldwin)

MAP 19: 15-MINUTE NEIGHBORHOOD AREAS



1/4 mile = 5 minute walk (3 mph)  
 3/4 mile = 15 minute walk (3 mph)  
 2 miles = 10 minute bike ride (12 mph)  
 3 miles = 15 minute bike ride (12 mph)

1 | Lake Orion Village  
 2 | Gingellville Village (Maybee & Baldwin)  
 3 | Decker Hamlet (Squirrel & Silverbell)  
 4 | Friendship Woods Hamlet (Clarkston & Baldwin)

0 0.5 1 2 Miles





## Applying 15-minute neighborhood strategies in Orion Township

A key consideration when applying the 15-Minute Neighborhood concept is choosing one or more centers or core areas within the Township. An informal way to think about the concept is that of a central area where you could complete some or all of your Saturday morning errands without having to drive to from your home. This could range from a small mixed use area that provides access to a few amenities like a café, small market or ice cream shop and a park, to a more robust village setting with many shops and restaurants. While some of these uses may not be as critical to resident needs as a grocery store, they are still important community facilities that can help identifiable places within the Township. In order for a 15-minute neighborhood to be sustainable and foster walkability, several key ingredients are needed. This includes:



1. **Land Uses.** The core of 15-minute neighborhoods includes mixed use areas where at least some basic everyday local commercial and service needs can be fulfilled. This may range from a small market to get milk, bread and basic goods in a hamlet setting to much more extensive commercial and local service offerings in a village setting.



2. **Placemaking.** The walkable core area with placemaking elements. This needs to be a desirable destination with places to gather, things to do, and places to shop.



3. **Zoning Implementation.** A zoning district with contextual form and use regulations. A hamlet district differs from a village or traditional downtown because it recognizes a relaxed, small-town feel where buildings have modest setbacks in all yards, some retail uses may take place in buildings that were formerly homes, and retail uses are limited to meeting convenience needs, not comparison shopping, and



4. **Complete Streets.** A complete streets network that directs walking, biking, and vehicle trips to the core areas. This includes sidewalks, bike paths, bike lanes, and roads connecting people living in working within a 15-minute bike ride to the core area.

The 15-minute neighborhood concept will be implemented by establishing a new zoning district or overlay district for hamlet areas and refining the Gingellville Village Center Overlay District to reflect the current Master Plan vision. It will also require amendments to the Complete Streets / non-motorized plans. This concept creates the framework for recommendations and implementation strategies in this Master Plan.

## Gingellville Village

FIG. 31. GINGELLVILLE VILLAGE: MAYBEE & BALDWIN



- 1/4 mile = 5 minute walk (3 mph)
- 3/4 mile = 15 minute walk (3 mph)
- 2 miles = 10 minute bike ride (12 mph)
- 3 miles = 15 minute bike ride (12 mph)

### Background

The Township has existing policies in place through the 2015 Master Plan, Zoning Ordinance, and Zoning Map which guide and dictate development within the Gingellville Area.

The 15-Minute Neighborhood Concept for this area continues the Township's focus on this area as an emerging village center. Rather than taking the corridor approach as existing policies have done, the Gingellville Village is centered from the intersection of S Baldwin Rd and Maybee Rd. The walk sheds spread fairly evenly in all direction from this area, and the bike sheds stretch to the west and south beyond the Township's boundaries.

### Anticipated Uses

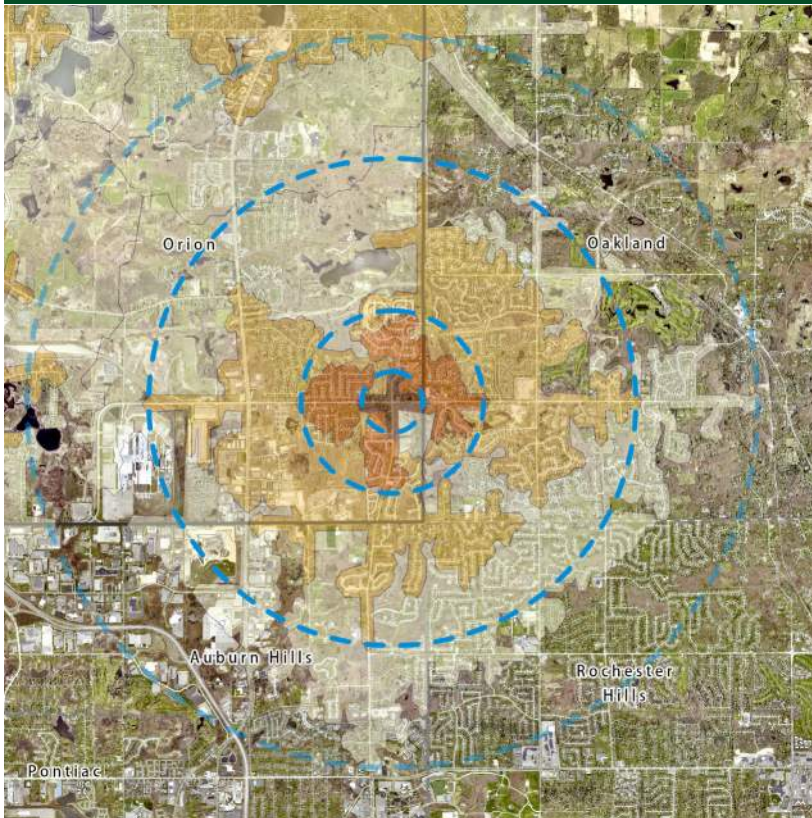
Permitted uses within the area outlined are listed in the Gingellville Village Center Overlay District – Section 33.01 Principal Uses Permitted. Following are the list of uses currently permitted/restricted in this overlay district.

- Low intensity retail, office or professional uses
- "Big Box" or intensive commercial uses shall be restricted
- Mixed use developments including residential and commercial uses are encouraged as part of a PUD.
- Deep parcels shall be reserved for residential uses, but may have frontage retail or flex space that could be townhouse, retail or other similar uses. Single-family residences are favored as the predominant land use at the edges of the district. In mixed use projects, it is expected that detached and attached units would be interspersed with local business uses along the frontage of the property. Missing middle housing types are also encouraged in this area.



## Decker Hamlet

FIG.32. DECKER HAMLET: SQUIRREL & SILVERBELL



- 1/4 mile = 5 minute walk (3 mph)
- 3/4 mile = 15 minute walk (3 mph)
- 2 miles = 10 minute bike ride (12 mph)
- 3 miles = 15 minute bike ride (12 mph)



### Location

The Decker Hamlet is centered from the intersection E Silverbell Rd and N Squirrel Rd in the southwest corner of the Township.

### Walksheds and Bikesheds

The walksheds remain primarily within Orion Township, stretching east into the developed southwest corner of Oakland Township.

The bikesheds stretch further into Oakland Township and continue into Auburn Hills and Rochester Hills to the south. While the immediate area around this intersection is developed with single-family housing or undeveloped, there are three community facilities present near the center: Jesse Decker Park, The Goddard School of Lake Orion (private), and Eagle Creek Academy (private – Oakland Twp).

### Anticipated Uses

This Hamlet envisions a small settlement with some mix of uses not currently present in the area, but containing a form that remains compatible with the existing residential and rural character of the area.

Uses and development could include small-scale commercial uses in one or two-story buildings, potentially through the re-purposing of single-family buildings or new buildings that are compatible with single-family uses.

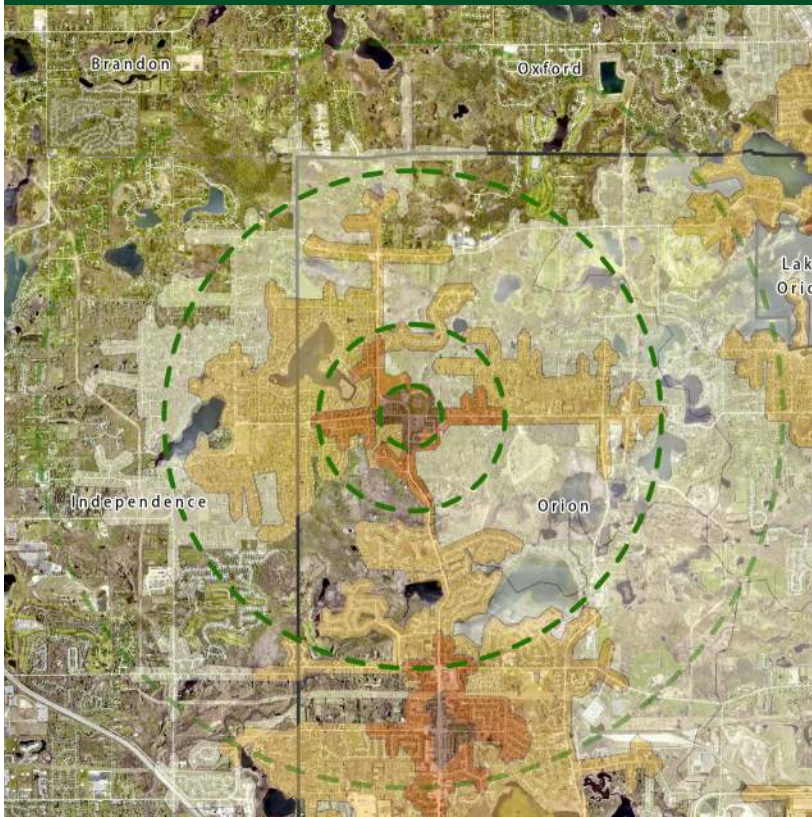
Images to the left. Existing small-scale commercial buildings compatible with existing residential style





## Friendship Woods Hamlet

FIG. 33. FRIENDSHIP WOODS HAMLET: CLARKSTON & BALDWIN



- 1/4 mile = 5 minute walk (3 mph)
- 3/4 mile = 15 minute walk (3 mph)
- 2 miles = 10 minute bike ride (12 mph)
- 3 miles = 15 minute bike ride (12 mph)



Restaurant at Baldwin Commons

### Location

The Friendship Woods Hamlet is centered from the intersection of S Baldwin Rd and W Clarkston Rd in the northwest corner of the Township.

### Walksheds and Bikesheds

The walkshed is entirely within Orion Township. The bikesheds stretch further west into Independence Township with small portions continuing to the north into Oxford and Brandon Townships.

### Anticipated Uses

Friendship Park is a major attraction to this location offering many amenities and continuing to evolve with the addition of historic structures relocated from other areas in the Township and other community amenities. Across S Baldwin Rd to the southwest of Friendship Park is an existing commercial area that has existing uses and buildings that are desirable to include within a hamlet, though these uses are primarily service-oriented.

The Baldwin Commons shopping center at the southeast corner of Baldwin and Clarkston has a variety of convenience and restaurant uses and services including Great Harvest Bread, indoor and outdoor dining at Ignite Tavern, a cleaners, ice cream / frozen custard store, dry cleaners, nail salon, and more. It also has an existing pedestrian linkage to the Orion Oaks Assisted Living and Memory Care facility.

Additional uses should be pursued within this area to strengthen the existing hamlet-quality of this area. This could include infill development within this immediate area, or additional small-scale development along Clarkston Rd in both directions and S Baldwin Rd to the south.



## Hamlet Placemaking Ideas

Creating people-oriented design elements is key to offering an authentic sense of place with the core of each neighborhood. These elements can be simple, like high quality chairs and benches, or they can be elaborate, with outdoor fireplaces, pop-up shops, and more.

Encouraging mixed use and, where appropriate, missing middle or more dense housing developments in the core helps to sustain a Hamlet style development.



Activated Front Yard



Brick Pathways and Liner Gardens



Pop-up Retail



Makeshift Outdoor Cafes



Permanent Outdoor Cafes



# Public Space Activation

“I end then in praise of small spaces. The multiplier effect is tremendous. It is not just the number of people using them, but the larger number who pass by and enjoy them vicariously, or even the larger number who feel better about the city center for knowledge of them. For a city, such places are priceless, whatever the cost.”

— William H. Whyte

## Community Gardens and Pocket Parks

As the Township seeks to promote public spaces in walkable areas, there should be a consideration for developing community gardens and pocket parks to promote placemaking and enhance community ties. Community gardens and pocket parks are typically small spaces, but they provide many benefits for communities, including beautification, creation of a sense of public culture and wellbeing, and pulses of interest along a non-motorized pathway. While community gardens and pocket parks can function in a variety of locations throughout the Township, this plan suggest the Orion Township seek out and identify locations within public parks, corridors and non-motorized paths that can be serve as a collective gathering place.

While early community gardens throughout the U.S. functioned to provide food for communities during WWII (see Fenway Victory Garden below), the concept has more recently been used to promote creative placemaking and encourage intergenerational ties throughout the community.



*Above: Located within Frederick Law Olmsted's famed Emerald Necklace, the Fenway Victory Gardens hold more than 500 gardens for City of Boston residents. Spanning 7.5 acres along Boston's Muddy River, the gardens are tended by a community of more than 375 members from every neighborhood in Boston, reflecting the diversity of the city and its rich history and culture. (Fenwayvictorygardens.com)  
Photo Source (Andrew Watson, Victory Garden Path)*



Following adoption of the Master Plan, there are many potential paths towards the creation of new community gardens and pocket parks. These amenities could become a part of new developments. A mail pocket park incorporated along a public pathway along a street would serve to benefit all users along that pathway. Township staff within the Parks and Recreation and Planning should collaborate to identify areas within Township parks or on Township owned land that would serve as appropriate locations. Places within the 15-minute neighborhood core areas: Friendship Woods Hamlet, Decker Hamlet and Gingellville Village Center could serve as logical starting points for this endeavor.



*Pocket Park example (photo: Andrew Alexander Price)*



A photograph of a paved road stretching into the distance, flanked by large, mature trees with dense green foliage. The road has a dashed yellow center line and solid white edge lines. On the left side of the road, there is a diamond-shaped warning sign. On the right side, there is a utility pole and a small landscaped area with rocks and shrubs. A green rectangular box is overlaid on the upper right portion of the image, containing the word "Implementation" in white text.

# Implementation



# Zoning Plan

The Zoning Ordinance is one of the primary tools for implementing the Master Plan. Many of the land use recommendations, goals and objectives found in this plan can be aided by amendments to the Township's Zoning Ordinance. Amendments can range from minor changes to text all the way to the creation of new districts.

Aside from the modification of existing districts (e.g., updating multiple family districts to including missing middle housing), some objectives of the Master Plan will be addressed with text amendments. The table below is the Zoning Plan. It shows how Master Plan categories align with zoning categories in the Township

TABLE 10. ZONING PLAN

General Category	Future Land Use Category	Zoning District
Residential	Single Family Low Density	SF – Suburban Farms
		SE – Suburban Estates
	Single Family Medium Density	SR – Suburban Ranch
	Single Family High Density	R-1/R-2/R-3 - Single Family Residential
	Multiple Family – Low Density	RM-1 - Multiple Family
	Multiple Family – Medium Density	RM-2 - Multiple Family
Office	General Office	OP - Office and Professional
	Office Research	BIZ – Brown Road innovation Zone
		OP – Office and Professional
Commercial	Neighborhood Commercial	RB – Restricted Business
	Village Center	Gingellville Village Center Overlay District
	General Commercial	GB – General Business
Industrial	Industrial/Commercial Mixed Use	BIZ – Brown Road innovation Zone
		Lapeer Road Overlay
	Research Industry	LI – Limited Industrial Park
		IP – Industrial Park
	Heavy Industry	IC – Industrial Complex
Other	Institutional	Not a specific district
	Private Recreation	REC-1/REC2 - Recreation
	Recreation	
	Special Purpose	SP-1/SP-2 – Special Purpose
	Utility Owned	Railroad Freight Yard and other districts
	Special Circumstance	Typically the result of Consent Judgments or other Court Order
	Planned Unit Development	Planned Unit Development





# Action Strategies

The thoughtful preparation and adoption of any plan would be of diminished value without a program of implementation strategies. The implementation strategies of this chapter will assist the Township in putting the key recommendations of the Master Plan to work. The implementation program is based on the goals and objectives discussed earlier. A specific Zoning Plan outlines steps that can be taken toward implementation through amendments to the Zoning Ordinance.

The best plans are those that are implemented in a consistent, incremental, and logical manner. The implementation matrix that follows is designed to show how the goals of the Master Plan are fulfilled by action strategies. All boards, commissions, and authorities are encouraged to read through all of the strategies to understand how they all work together to create a better community to live, work, and play.

## Implementation Matrices

In order to illustrate the connection between goals, objectives and action strategies, each of the implementation matrices that follow align with the goals, which are noted at the top of each matrix. Within each matrix, the action items are broken into subcategories intended to assist with identification and prioritization. Not all goals contain action items within each subcategory and some goals are repeated as they can advance more than one goal. The matrix subcategories include:

TABLE 10. IMPLEMENTATION ACTION ITEMS

Action Strategy	Description
Zoning	These are items requiring zoning amendments and will generally be led by staff and the Planning Commission.
Advocacy	These will be items involving education of the community, including residents, business owners, property owners, developers and design professionals. They will be led by a combination of staff, boards and commissions. This may also involve Township staff and officials working with county and state officials to coordinate plans and funding, as appropriate.
Capital Improvement	These involve large capital investments, such as equipment, projects or studies, that require inclusion into the Township's Capital improvement plans in order to determine the most efficient time and method of completion and may involve multiple municipal departments.
Other	Other items may involve research, study and further evaluation by staff and/or other boards and commissions.

**After adoption, the Planning Commission will assign time frames or priorities to the action items. These time frames are intended as guides and may be adjusted as resources allow or as other issues arise. Generally, short time frames are intended as three years or less; medium-to-long time frames are more than three years.**



The tables that follow assign actions to the goals and objectives, leaving room to establish priority levels for short-term, mid-term, and long-term items as the next step following adoption of this plan. This chapter should be reviewed periodically and at least annually to assess progress and adequately budget for specific strategies. Each action should have a “lead,” a board, commission, group, or individual who is responsible for project initiation and coordination.

TABLE 12. IMPLEMENTATION MATRIX CATEGORIES

Matrix Categories	Definitions
<b>Action Strategy</b>	The actions necessary to carry out goals and objectives
<b>Lead Body</b>	Identifies the primary party responsible for accomplishing the action strategy
<b>Time frame</b>	Identifies and prioritizes the time frame for the action strategy to be implemented. S = Short term (1-3 years) L = Long term (3+ years)
<b>Supporting Partners</b>	Identifies other parties involved in the accomplishment of the action strategy
<b>Abbreviations</b>	Admin - Planning Department PC - Planning Commission TB - Township Board NA - Not Applicable



## High-Quality and Diverse Housing (Residential Areas)

Orion Township will provide and support high-quality housing for residents of all ages through new residential developments and ongoing maintenance and upkeep of existing neighborhoods. A variety of new, high-quality missing middle housing types at various densities will be accommodated to welcome younger residents and families as well as allow older residents to age in the community. The quality of life for residents will be enhanced by protecting the natural features and rural suburban atmosphere of the Township while encouraging the development of neighborhood parks and open spaces.

### Objectives

- Support healthy communities by improving connectivity and access to green space in new and existing neighborhoods.
- Ensure adequate housing styles and densities are available to provide options for first time homebuyers or those looking to downsize and “age in community.”
- Develop programs to maintain and enhance existing neighborhood character, especially within older neighborhoods
- Encourage land use in accordance with the existing character and Township Future Land Use Plan.
- Promote adaptability through the use of innovative planning and zoning techniques that will result in a full range of housing types.



**Goal 1 | HIGH-QUALITY AND DIVERSE HOUSING**

Action Strategy		Lead Body	Time Frame	Supporting Partners
<b>Zoning Action Items</b>				
1a	Develop zoning standards for “missing middle” housing, including but not limited to duplex, triplex, quadplex and cottage court bungalow dwellings in multiple family districts. This will require updating existing zoning districts (see the Zoning Plan)	Admin / PC	S	TB
1b	Enable residents to age in place by creating zoning standards that encourage the development of active adult housing in a variety of styles, including detached and attached single-family homes and mixed-use development. Complement these developments with entertainment and community recreation opportunities	Admin / PC	S	TB
1c	Assess and amend the ordinance as needed to ensure open space required within developments offers adequate public amenities	Admin / PC	S	TB
1d	Review and, if necessary, update standards for buffering of non-residential uses from residential uses.	Admin / PC	S	TB
1e	Apply standards for street and subdivision design that require connections between neighborhoods that improve residential access, promote public safety access and minimize traffic congestion. Require new developments to provide connections to adjacent pedestrian and non-motorized facilities as practical. Coordinate with RCOC to ensure developments implement traffic safety measures and congestion strategies.	Admin / PC	S	TB / RCOC
<b>Advocacy Action Items</b>				
1f	Promote residential retrofits for accessibility in order to help seniors remain in their homes	Admin	S	PC
1g	Pursue strategies to make Orion Township an age-in-place friendly community	ALL	S	Oakland County
<b>Capital Improvement Action Items</b>				
1h	Continue public investment in new and existing pathways, sidewalks, parks, roads, and street trees to improve the quality of life in existing neighborhoods and along thoroughfares.	TB	S	Admin / PC
<b>Other Action Items</b>				
	Facilitate rehabilitation or removal of blighted residential structures.	TB	S	Admin / PC





## Natural and Historic Resources

### (Environmental Resources and Historic Preservation)

Orion Township will preserve and maintain natural resources and open spaces through growth management techniques that encourage development in specific areas of the community while preserving and protecting natural features of the community. Future development will incorporate innovative storm water management, low-impact design features, and site and landscape design that protect natural resources, preserve high-quality open spaces, minimize stormwater runoff, and reflect the natural character of the Township. The Township will maintain and preserve structures of significant historical and architectural value which are key elements in the unique identity and community character of the Township.

### Objectives

- Protect and enhance the Township's woodlands, wetlands, water features, habitats, and open space by enforcing the regulations that preserve natural features and the functions that they provide to the community.
- Improve storm water management using best management practices; establish appropriate standards for the community in coordination with the Oakland County Water Resources Commissioner.
- Adopt and enforce policies that minimize pollution and preserve the lakes and watershed areas of the Township.
- Promote and communicate sustainability concepts and incentivize residents and businesses to implement relevant strategies.
- Encourage energy-efficient and environmentally sustainable development through raising awareness and creating standards that support best practices.
- Provide resources and guidelines for the development and application of solar, wind, and other alternative energies.
- Preserve the inherent architectural character of individual historical architecture resources throughout the Township.
- Promote sustainable practices that craft solutions to today's challenges that are cognizant of and sensitive to impacts on future generations.
- Require street tree planting as part of all residential and non-residential development and promote and encourage preservation and, where appropriate, creation of woodland areas in order to foster environmental benefits, enhance property values, and act in support of the Township's recognition in the Tree City USA program.

## Goal 2 | NATURAL AND HISTORIC RESOURCES

Action Strategy		Lead Body	Time Frame	Supporting Partners
<b>Zoning Action Items</b>				
2a	Adopt a Corridor Open Space Preservation Overlay District or similar zoning mechanism that the Township can use to protect important corridor vegetation and rural character, as well as environmentally sensitive areas, but without requirement for 50% open space that is currently in the Open Space Preservation regulations.	Admin / PC	S	TB
2b	Assess the Zoning Ordinance and amend as needed to promote green development that are consistent with Leadership in Energy and Environmental Design (LEED) Standards or the equivalent	Admin / PC	L	TB
2c	Amend the Zoning Ordinance to allow alternative energy systems	Admin / PC	L	TB
2d	Explore the addition of a historic overlay zone to recognize and preserve the recognized historic assets within the Township	Admin / PC	L	TB
2e	Review and amend the Zoning Ordinance as needed to update lighting standards to lower energy demand and light pollution.	Admin / PC	S	TB
2f	Update the Zoning Ordinance standards to ensure they align with the county's best practice standards for stormwater management and low impact design	Admin / PC	S	TB
2g	Require electric vehicle charging station conduits in both public and private parking lots so that charging stations can be added as demand increase without the need to tear up surface lots	Admin / PC	S	TB
2h	Amend landscaping provisions to encourage more natural stormwater management practices, increase tree canopy, and reduce overall impervious surface on developed sites.	Admin / PC	S	TB
<b>Advocacy Action Items</b>				
2i	Educate the development community about the benefits of LEED certifications for both residential and non-residential buildings	Admin	S	PC
2j	Continue to promote and publicize the Township's participation in the Tree City USA program by exploring additional opportunities for recognition, such as the Growth Award for communities that demonstrate increased levels of tree care and community engagement.	Admin / TB	S	PC
<b>Capital Improvement Action Items</b>				
2k	Identify and budget for grant and funding opportunities to acquire and enhance parcels adjacent to the environmentally sensitive areas	Admin / TB	L	PC
<b>Other Action Items</b>				
2l	Explore the creation of a "Friends of Orion Parks" volunteer group to assist with identification and removal of invasive species and identification and protection strategies for wildlife habitats.	Admin / TB	S	PC
2m	Partner with Orion Schools and local environmental professionals to understand important environmental issues in the Township and region and make recommendations for educating parks and recreation users.	TB	L	Admin / PC







## Economic Development

(Economic Development, Commercial, Office and Industrial areas)

Orion Township will support a strong local workforce by maintaining and promoting the proper distribution of commercial, office, industrial and research development in a manner that results in desired economically sustainable developments, land use relationships, high-quality design, and an increase in the community's tax base. The Township will promote and encourage the concept of 15-minute neighborhoods in desired areas that foster walkable, mixed-use places supported by both non-motorized and motorized transportation infrastructure choices.

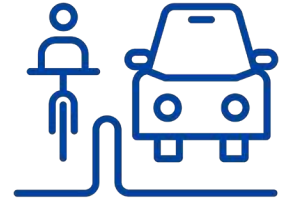
### Objectives

- Achieve a balanced variety of neighborhood-, community-, and regionally-oriented facilities that will meet the shopping and service needs of the community and nearby metropolitan area populations without unnecessary duplication.
- Promote the physical clustering of commercial establishments by encouraging mixed use, shared parking facilities, non-motorized access, consolidated driveways, pleasant pedestrian spaces, and contextual extensions of utilities.
- Regulate the physical clustering of industrial businesses in planned industrial parks, such as those within the southern half of the Township along the Brown Road and Lapeer Road corridors, rather than in stand-alone development, thereby providing for minimal extensions and impacts on utilities and nearby residential uses.
- Support residents of all ages in the local workforce by serving as an information clearinghouse on local and regional training, education, and business needs.
- Expand the Township's economy and tax base by supporting existing local businesses, encouraging entrepreneurship, and attracting new businesses
- Implement incentive programs available through Oakland County and the State of Michigan regarding emerging employment sectors.
- Continue participation in the Michigan Economic Development Corporation's Redevelopment Ready Communities Program.
- Continue and refine the practice of identifying and improving key corridors and districts for growth and economic development.
- Promote the redevelopment of obsolete sites so that they can once again make meaningful contributions to Orion Township.

## Goal 3 | ECONOMIC DEVELOPMENT

Action Strategy		Lead Body	Time Frame	Supporting Partners
<b>Zoning Action Items</b>				
3a	Amend the Zoning Ordinance to add mixed use designations that align with the goals of the Hamlet, Village Center and mixed-use designations	PC / Admin	S	TB
3b	Update industrial zoning to accommodate a modern mix of tech, research, and light industrial uses	PC / Admin	S	TB
3c	Review and amend the Zoning Ordinance as needed to ensure the development review process is as efficient and effective as possible	PC / Admin	S	TB
3d	Develop flexibility in parking standards and other site standards for redevelopment sites to enable new uses on physically constricted sites. Lower barriers to positive redevelopment.	PC / Admin	S	TB
3e	Use frontage landscaping standards to improve the appearance of commercial and industrial areas.	PC / Admin	S	TB
3f	Consider permitting additional height and or density in the RM-2 district. Review and consider appropriate buffering of taller structures	PC / Admin	S	TB
3g	Implement corridor-specific landscape and streetscape design concepts.	PC / Admin	S	TB
<b>Advocacy Action Items</b>				
3h	Explore public/private partnership opportunities for corridor improvements	TB	L	Admin / PC
3i	Develop a guidebook showing placemaking ideas for private development sites	Admin	L	PC / TB
3j	Develop annual survey to better understand the needs of the business community and ways in which the Township can provide support	TB / Admin	L	PC / Chamber of Commerce
3k	Work with MDOT and RCOC to encourage provisions that allow context-appropriate landscaping within state-controlled rights-of-way, like those along Lapeer Road	TB / Admin	S	PC / MDOT / RCOC
3l	Strive to target development to corridors with recent public investments including, but not limited to, Brown Road and Baldwin Road.	PC / Admin	S	PC / TB
3m	Work with property owners and the development community to explore implementation of identified redevelopment site concept plans.	PC / Admin	S	PC / TB
3n	Work towards development of a plan to promote Orion Township's leisure recreation amenities by highlighting natural beauty with important Township, County and State Parks and Recreation Areas, non-motorized pathways, and access to shopping and entertainment. Monitor the success of these efforts to ensure that the priority is on local residents having access and reasonable use of these facilities, striking an important balance so that natural amenities are not overburdened by too many visitors.	Admin / TB	S	PC
<b>Capital Improvement Action Items</b>				
3o	Annually review and update the CIP to target capital spending to priority areas.	TB / Admin	S	TB
<b>Other Action Items</b>				
3p	Establish a beautification award program, with categories for individual residential and commercial/mixed use properties, as well as collective neighborhood efforts.	TB / Admin	L	PC





## Community Facilities (Community, Recreation, and Complete Streets)

Orion Township will support and foster motorized and non-motorized transportation facilities, community recreation facilities, and other supportive community facilities and services desired by residents and businesses in a financially responsible manner that reflects the Township's role and position in the region. These systems will minimize the impact on the Township's natural features and open space while supporting a high quality of life for residents of all ages, as well as targeted land use recommendations. The Township will, when desirable, partner with neighboring communities, other public agencies, and the private sector to maintain, link, and expand infrastructure in an effective, efficient, and economical manner.

### Objectives

- Facilitate multi-modal connections that provide access to residential areas, economic destinations and parks & recreation facilities throughout the Township in a safe, efficient and effective manner.
- Ensure civic spaces, utilities and other infrastructure are well-maintained while providing sustainable strategies for growth in a practical manner.
- Provide community support to ensure Orion Township police, fire and first responders can continue to operate efficiently in a manner that best serves all residents within the community.
- Pursue new facilities that enhance the quality of life for Township residents and businesses, including a new Township Hall, improved parks, and non-motorized facilities that connect these assets with residential and non-residential areas.
- Actively promote and, where appropriate, require the installation of non-motorized facilities in accordance with the Township's Safety Path Plan and establishment of the core 15-minute neighborhoods.
- Deliver outstanding parks and recreation facilities and programs.
- Encourage Township staff to promote ways in which all Township-owned facilities can conserve energy and serve as a model for energy efficiency in the Township.



**Goal 4 | COMMUNITY FACILITIES**

Action Strategy		Lead Body	Time Frame	Supporting Partners
<b>Zoning Action Items</b>				
4a	Review and amend the Zoning Ordinance as needed to accommodate autonomous vehicles, ride-sharing and other forms of transportation.	PC / Admin	L	TB
<b>SAdvocacy Action Items</b>				
4b	Adopt a Complete Streets policy that establishes non-motorized transportation as a policy priority, reflecting that the Township will consider opportunities for improvements to non-motorized connections and facilities whenever new construction projects take place.	TB	S	PC / Admin
4c	Explore the creation of an ad hoc committee tasked with evaluation of sharing facilities and services between adjacent communities, schools, the county and private businesses with a goal of providing effective and efficient community amenities and services.	TB / Admin	L	PC
<b>Capital Improvement Action Items</b>				
4d	Consider the priority installation of non-motorized facilities in accordance with the Township's Safety Path Plan and establishment of the core 15-minute neighborhoods	TB / Admin	S	PC
<b>Other Action Items</b>				
4e	Minimize required street pavement width, where possible, based on need to support travel lanes, street parking and emergency maintenance service vehicle access.	PC / Admin	L	TB
4f	Continue to update the Township's recreation Master Plan every five years to ensure the adopted plan is recognized by the DNR and the Township remains eligible for grant and assistance	TB / Admin	L	PC





## Community Character and Aesthetics

Orion Township's tagline, Where Living is a Vacation, encompasses a wide variety of community qualities and features that make the Township unique and cherished by those that live here. In addition to the goals and objectives noted above, the Township will continue to support retaining community character elements and aesthetic qualities that are consistent with the vision of the Township and promotion of health, safety, and general welfare.

### Objectives

- Enforce Township regulations that reduce glare and preserve the dark sky.
- Promote the preservation of natural vegetation along rural corridors of the Township through creative zoning regulations and coordination with the Road Commission for Oakland County.
- Seek out preservation of important viewsheds that permit Township residents to view lakes, streams and other natural resources
- Require high quality and durable finishing materials and furnishings, consistent with recommendations and policies in this Master Plan, and recognize that certain districts and corridors require unique and harmonious elements.
- Support the advancement of the four identified 15-minute neighborhoods and develop regulations that support hamlet and village style development.
- Encourage the incorporation of design elements into new development that reflect the historic character of the Township.
- Continue to update and enforce sign regulations to ensure that signage in the Township is an aesthetic asset that effects communication and quality appearance over blight, clutter and over-saturation of messaging.

**Goal 5 | COMMUNITY CHARACTER & AESTHETICS**

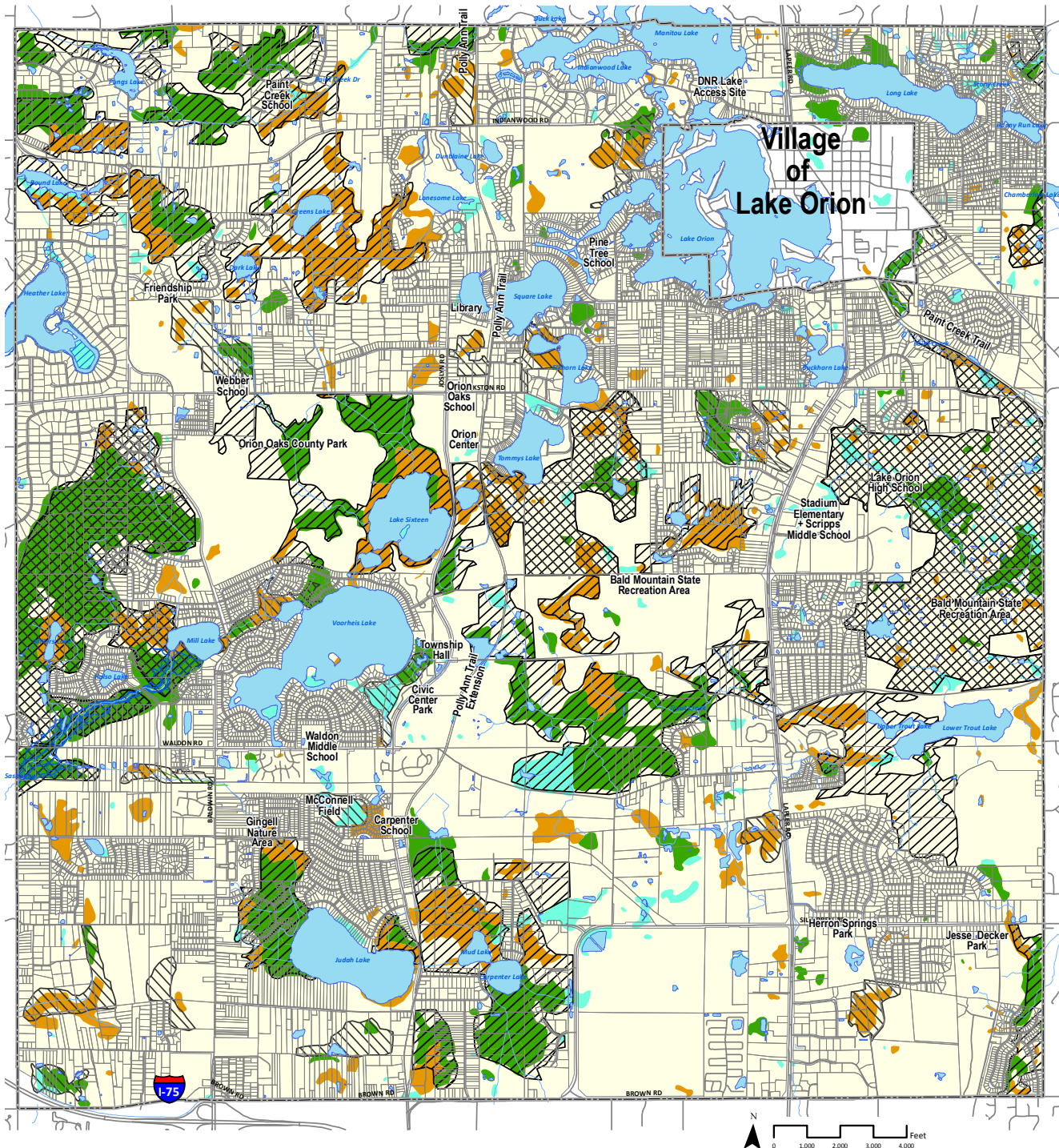
Action Strategy		Lead Body	Time Frame	Supporting Partners
<b>Zoning Action Items</b>				
5a	Review and amend the Zoning Ordinance as needed to require high quality building materials and design standards for all new development.	PC / Admin	S	Orion Historical Society / TB
5b	Review and amend the Zoning Ordinance as needed to encourage preservation and reuse of historic structures.	PC / Admin	S	TB
5c	Review and update the lighting ordinance to meet the Michigan Dark Skies regulations; consider lighting zones to accommodate all uses	PC / Admin	S	TB
<b>Advocacy Action Items</b>				
5d	Establish architectural design, signage, and landscaping of key entryway features at the Township's borders.	TB	L	Admin / PC
5e	When property is developed or redeveloped, explore opportunities to link the front and back of the building by pedestrian passages that are open to the public	PC / TB	S	Admin
<b>Capital Improvement Action Items</b>				
5f	Update the Township's CIP plan annually	PC / TB	S	Admin
<b>Other Action Items</b>				










# Appendix A

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## Michigan Natural Features Inventory Priority Conservation Areas



- |   |                      |   |                |
|---|----------------------|---|----------------|
|  | Forested Wetlands    |  | Priority One   |
|  | Scrub-Shrub Wetlands |  | Priority Two   |
|  | Emergent Wetlands    |  | Priority Three |
|  | Floodplain           |   |                |

## Michigan Natural Features Inventory Priority Conservation Areas

Charter Township of Orion  
Oakland County

Source: Oakland County Potential Conservation/Natural Areas Report,  
Michigan Natural Features Inventory, MDNR + MSU, 2004

Map by:  
Carlisle / Wortman Associates, Inc.



# Appendix B

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## Oakland County Programs



# County Programs and Services

## Oakland County Department of Economic Development Programs and Services

Program	Service / Mission
Brownfield Redevelopment Authority (OCBRA)	Provide assistance in the County's Brownfield initiative to clean-up and redevelop contaminated properties.
Environmental Stewardship	Provide information, plans and options to promote conservation of the natural environment while supporting sustainable economic growth, development, and redevelopment.
Historic Preservation Assistance	Support local efforts to maintain and enhance architectural and heritage resources through sustainable practices to enrich the quality of life for all.
Land Use & Zoning Services	Prepare and provide land use, zoning, and Master Plan reviews for communities to enhance coordination of land use decision-making.
Main Street Oakland County (MSOC)	Help local governments develop their downtowns as vibrant, successful districts that serve as the heart of their community.
Oakland County Household Hazardous Waste Program (NoHaz)	Help Oakland County residence to have an option for the proper disposal of household hazardous waste
Planning, Zoning and Development Training	Encourage communities to capitalize on their strengths and refine their economic development processes to implement their community vision.
Trail, Water & Land Alliance (TWLA)	Become an informed, coordinated, collaborative body that supports initiatives related to the County's Green Infrastructure Network



# Appendix C

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Updated 2015 Master Plan-Sub Area Plans

## SUB AREA PLANS

As a part of the 2015 Master Plan update, several areas within the Township received more detailed analyses and considerations for future land use. The areas of special focus, described below, provide specific land use recommendations and site design considerations for each. This Appendix includes key concepts carried forward and adapted, as necessary to reflect the vision of the 2022 Plan. These sub areas include:

- Gingellville
- Village of Lake Orion Area
- Brown Road

### GINGELLVILLE SUB AREA

The Village of Gingellville has had a long history in Orion Township. Originally founded as an agricultural community, the Village has evolved into a collection of shops and residential areas. The land use plan promotes the continued refinement of the Village into a unique enclave. The plan promotes the integration of commercial and residential uses within a well-designed, pedestrian-friendly development.

Due to the size of the Township's population, the historical growth patterns and the close proximity to several regional shopping centers, it is imperative that the development concepts for this sub-area are compatible with the existing development patterns. The congestion problems within the area, the abundance of available land, and the desired intent to preserve the historical hamlet of Gingellville should also be key elements of any new development concepts. Therefore, the Township policies for this sub-area should focus on clustered, mixed use village style rather than strip commercial development land use patterns.

#### *Strip Development vs. Village Center Development*



The disjointed character of strip-style development (left) often requires the use of an automobile to get from building to building. In contrast, village center-style development (right) encourages pedestrian connectivity between uses.

Source: <http://homesmsp.typepad.com/>



*Table A-1. – Characteristics of Typical Strip Development vs. Village Center Development*

TYPICAL STRIP DEVELOPMENT	VILLAGE CENTER DEVELOPMENT
Disruption of traffic flow from multiple curb cuts.	Shared access to minimize the number of curb cuts.
Not pedestrian friendly due to multitude of cars in front of the buildings.	Parking encouraged in the side or rear to make the street side for pedestrians.
Lack of coordination of commercial uses and building styles.	Compatibility of uses and architecture through specific guidelines.
Requires the continued use of the automobile to shop in multiple stores.	Buildings located close to the street to slow vehicles and encourage pedestrian use.
Often has blighting effect on contiguous residential land.	Pedestrian connectivity between buildings and uses.
Lack of uniformity in signs, lighting, landscaping and other amenities.	Uniform sign, lighting and landscape requirements result in a uniform and well maintained product.

The intent of the Gingellville sub area is to create a "village-like" atmosphere with areas of various uses that are interconnected, pedestrian-friendly, and blend community-oriented business development with residential uses. Commercial uses shall be of neighborhood scale and shall not include intensive commercial uses which are incompatible with surrounding residential uses. A new zoning overlay district – the Gingellville Village Center Overlay District – has been established to accomplish the intent of this land use category.

As a mixed land use concept, low intensity commercial and office uses are allowed to mix with residential land uses within the Gingellville sub area. The following land use design principles shall apply to the Village Center land use classification, the Gingellville sub area and the correlated Gingellville Village Center Overlay District:

- Mixed-Use Village Center developments shall be reviewed as part of a Planned Unit Development (PUD).
- Commercial uses shall be limited to low intensity retail, office or professional uses similar to the Restricted Business zoning district (RB).
- "Big Box" commercial uses shall be prohibited. Maximum floor area for commercial use shall be limited and shall be consistent with the Village character.
- Deep parcels shall be reserved for residential uses, but may have frontage retail or flex space that could be townhouse, retail or other similar uses. Single-family residences are favored as the predominant land use at the edges of the district. In mixed use projects, it is expected that detached and attached units would be interspersed with local

business uses along the frontage of the property. Missing middle housing types are also encouraged in this area.

- Land uses should transition from commercial, or multiple-family, to lower density residential uses including single family detached units to the east and west of Baldwin Road, with appropriate buffers and screening on the perimeter.
- Village Center developments shall promote pedestrian connection and linkage.
- Secondary access shall be required either by parallel access roads or perpendicular access roads from Baldwin Road.
- Rear yard and side yard parking shall be encouraged.
- Pedestrian amenities such as street furniture, benches, lighting, pavers and extensive landscaping shall be required.
- All projects shall demonstrate quality architecture and landscaping consistent with the Village Center.

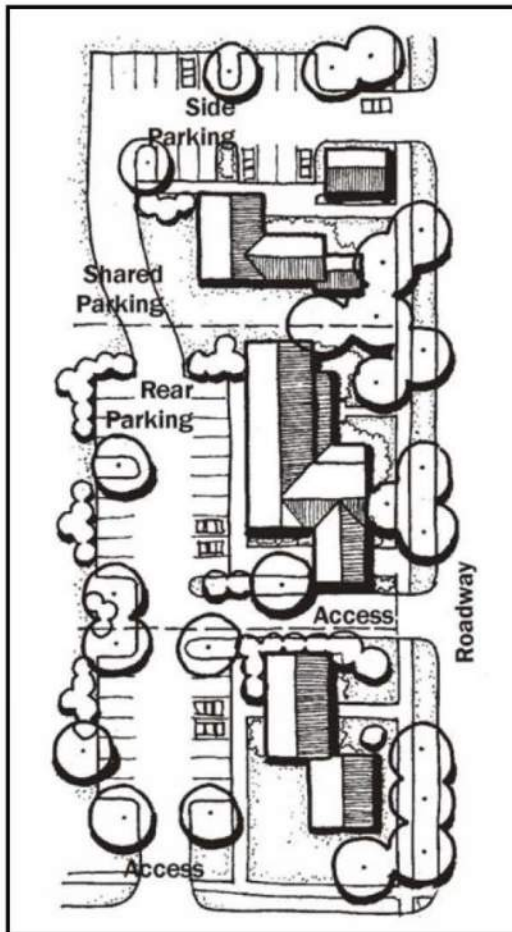
The conclusion from this analysis is that the Township needs to maintain the existing Gingellville Village Center Overlay District in order to ensure that strip development land use patterns are halted and that new "Village"-style development concepts can take hold. As noted above, this development concept is a traditional village concept that successfully integrates commercial and residential uses. Special emphasis will be placed upon high-quality architecture and landscaping within a pedestrian-friendly environment.

### *Village Center Development*

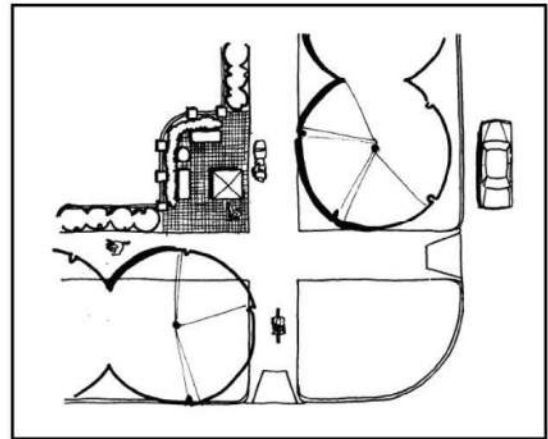


Pedestrian-friendly mixed-use projects are encouraged within the Gingellville Village Center. Village Center developments should promote linkages between various land uses, including neighborhood-oriented retail (left), multi-family residential (right), and single-family residential.

Source: [activerain.trulia.com](https://www.activerain.com)



**Rear/Side Yard Parking along with Primary and Secondary Access from Baldwin Road and Side Roadway**

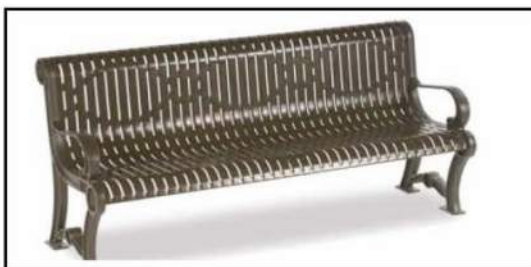


**Pedestrian Plaza as a Public Space Amenity**



**Sign Design Continuity for Multi-Tenant Commercial Developments**

(Complementary colors, common lettering, similar location, uniform materials, size, proportion and background panel)



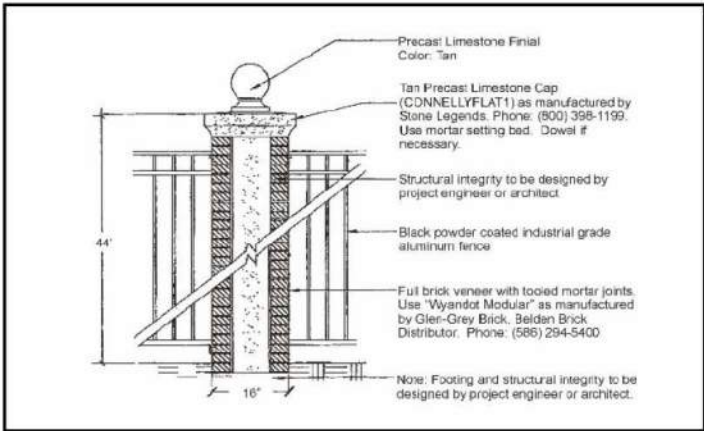
**Pedestrian Amenities such as Benches**  
Wabash Valley Manufacturing, Inc.  
(Model #ES42OP)

## Gingellville Planning Concepts

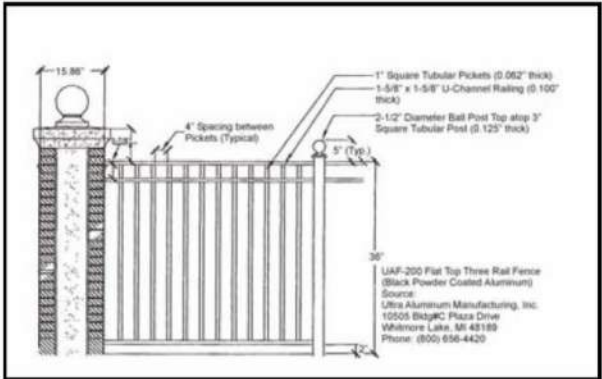




**Pedestrian Lighting Detail**  
**Antique Street Lamps Mfg. Inc.**  
**(Model # DS7K)**



**Parking Lot Screening**  
**Pillar Detail**



**Parking Lot Screening**  
**Fence Detail**

**Gingellville**  
**Planning**  
**Concepts**



#### VILLAGE OF LAKE ORION AREA

The Master Plan recognizes the importance of the Village of Lake Orion to the Township. The Village is a commercial and residential center with an attractive downtown and waterfront. The Township and Village share a unique identity within the overall region.

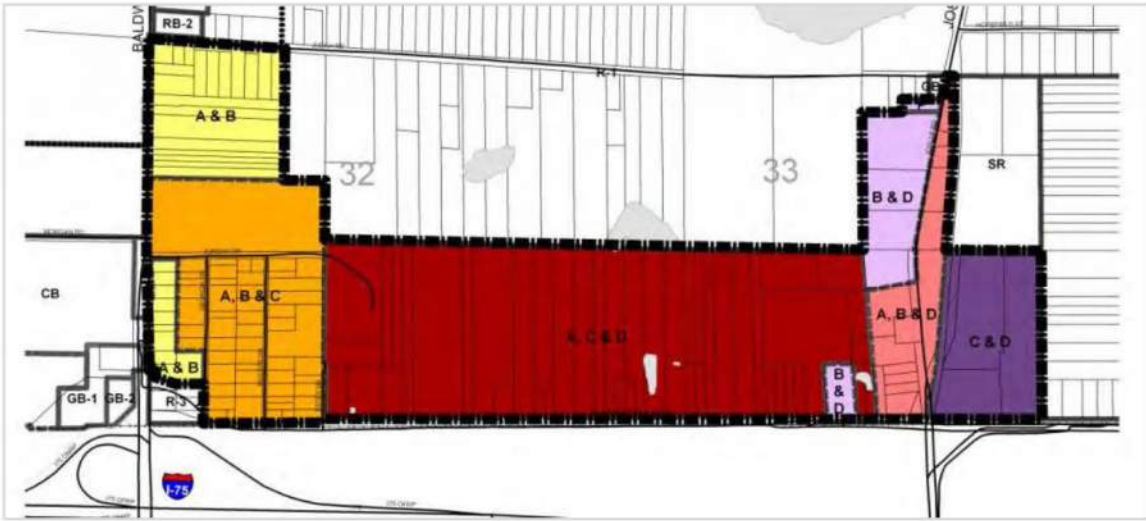
Much of the commercial activity prevalent within this sub-area of the Township is in a linear pattern on Lapeer Road as opposed to larger commercial areas or shopping centers. While understanding that this portion of the Township promotes a mix of office and commercial facilities in close proximity to several neighborhoods, the depth of the commercial land use prohibits regional shopping centers. These smaller-scale commercial centers are also not intended to compete with the larger regional shopping centers in Auburn Hills, Pontiac and Novi.

#### BROWN ROAD SUB AREA

The Brown Road sub area is geographically consistent with the Brown Road Innovation Zone (BIZ) zoning district. The sub area and BIZ district encourage mixed industrial and commercial uses, and supporting ancillary uses, within large-scale planned developments. The sub area promotes economic development as well as redevelopment, and encourage the elimination of blighted properties. The Master Plan promotes “flex” zoning concepts which will help facilitate redevelopment and minimize impediments to future growth. The Brown Road Area is also intended to encourage collaboration between adjacent property owners in the form of shared access and lot combinations. Parcel consolidation and interior loop roads are encouraged and are represented in the proposed Brown Road Redevelopment Plan illustrated on the following page.

Development within the Brown Road sub area should incorporate low impact design (LID) and participate in Leadership in Energy and Environmental Design (LEED) practices. New developments shall plan for safe and complementary vehicular and pedestrian circulation patterns and improve environmental quality. Special consideration should be given to projects that provide an attractive transition between residential and non-residential properties, and projects which feature a mixture of uses in a well-designed land use arrangement.

Figure A-1. Brown Road Innovation Zone (BIZ) and Brown Road Redevelopment Plan





## Access Management / Shared Parking

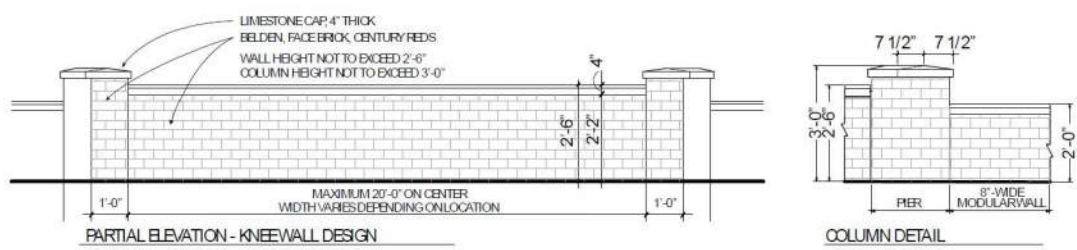


## Interior Road Entrance Area Example

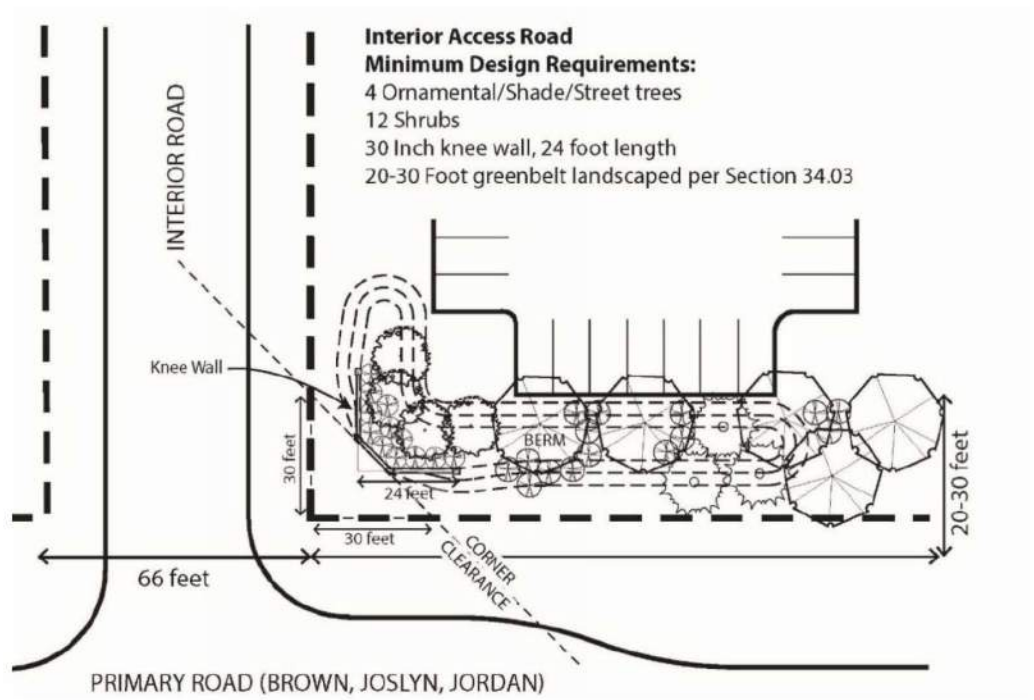


## Brown Road / BIZ District Planning Concepts

Representative Interior Access Road  
With Knee Wall and Landscaping

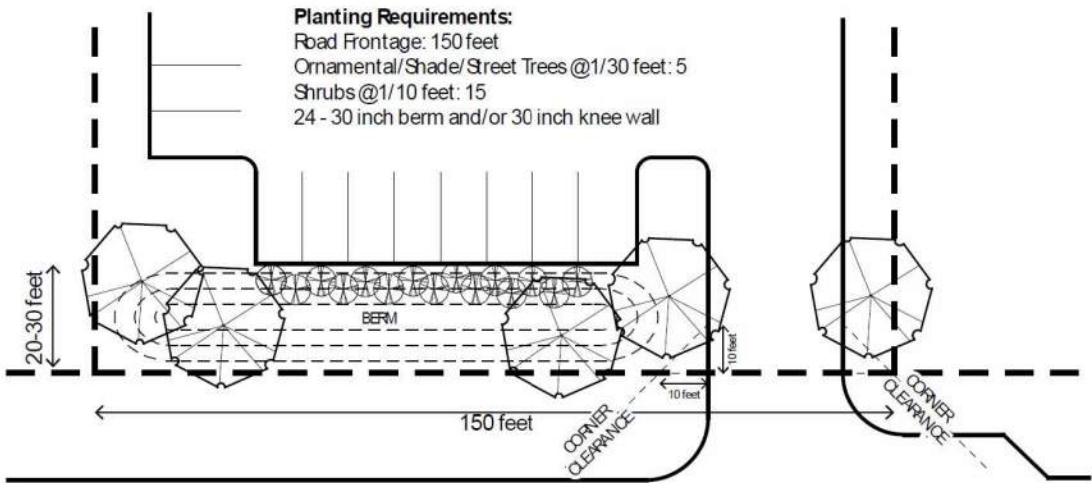


Interior Road Entrance Area

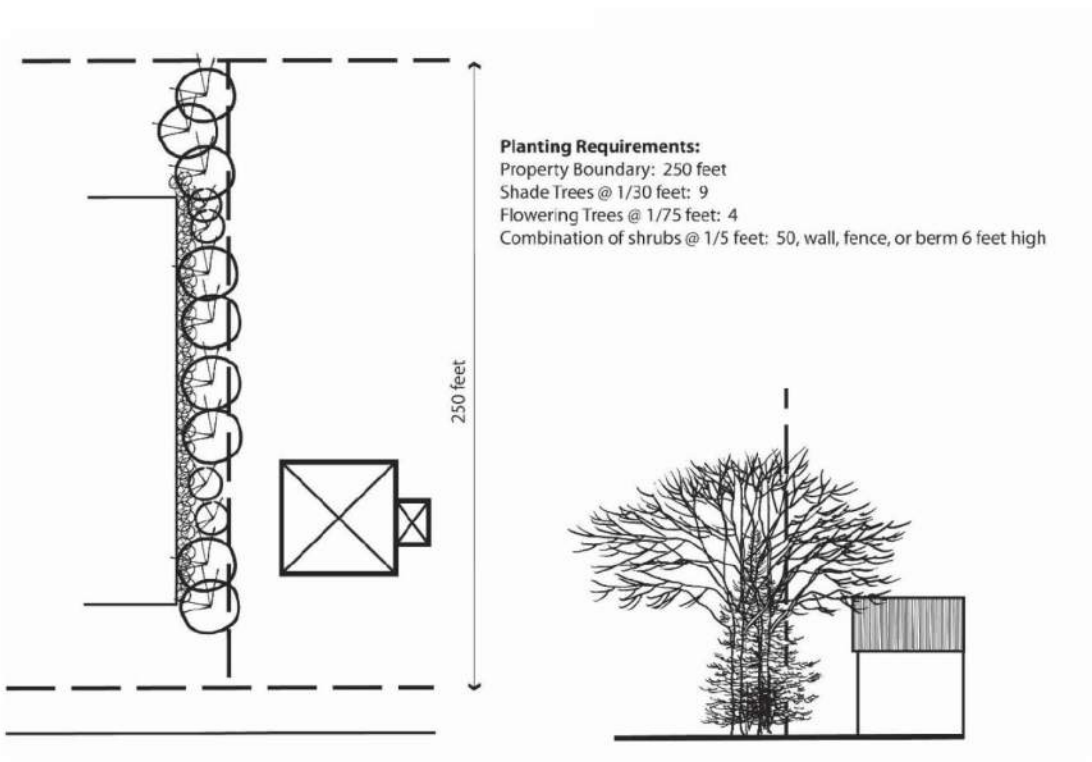


Brown Road / BIZ District  
Planning Concepts

Street Frontage Landscape Requirements



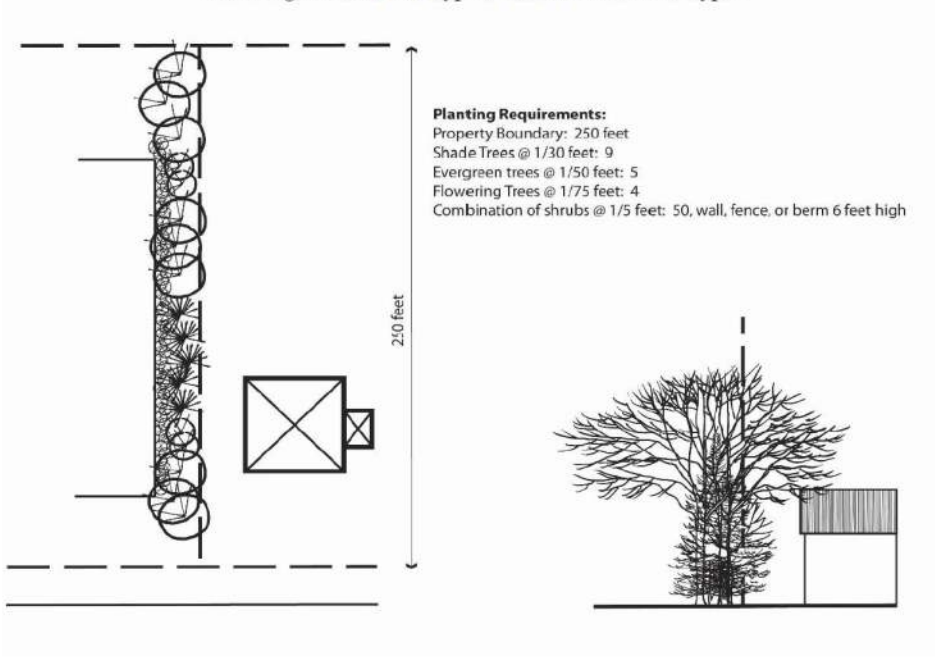
Buffering between Residential and Non-residential Uses



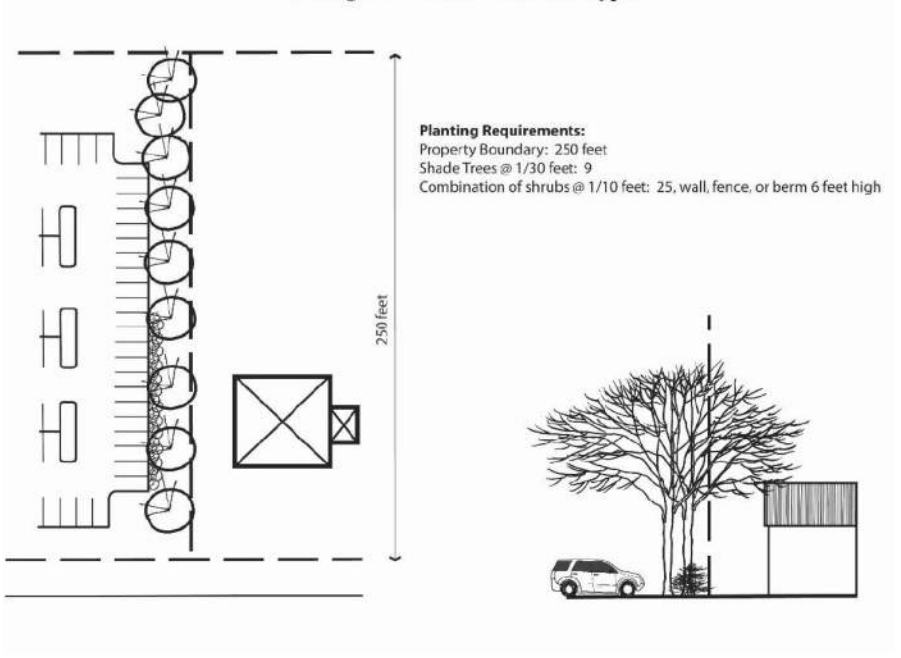
Brown Road / BIZ District  
Planning Concepts



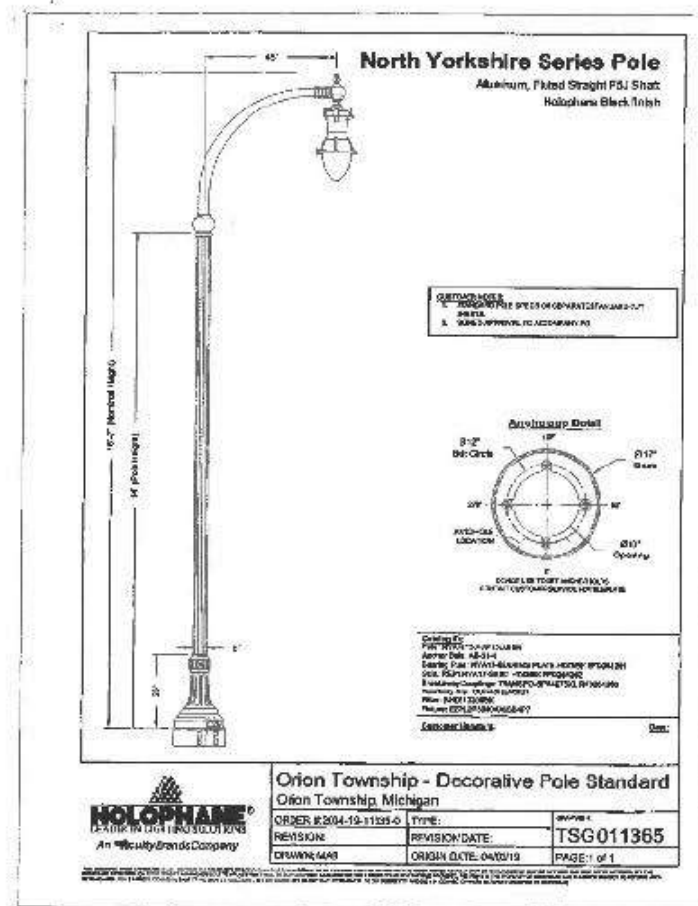
Buffering Between Use Type D and All Other Use Types



Buffering Between All Other Use Types



Brown Road / BIZ District  
Planning Concepts



## Brown Road / BLZ District Planning Concepts

# Appendix D

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## Market Assessment Survey Summary



## Orion Township Market Assessment Summary

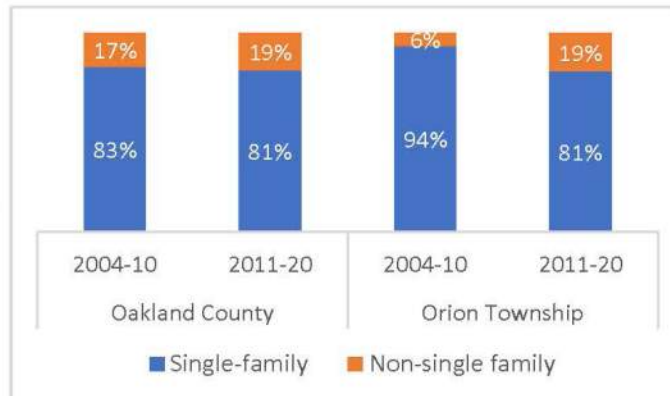
The following is a market assessment for Orion Charter Township. The focus is on market conditions and is based on data mining, analytics, and analytical methods. The indicated demand is based on historical data, new data developed on area property sales and rentals, data mined from a survey of area residents, analytics from surveys of several thousand households in Neighboring areas of Michigan conducted in the past two years by The Chesapeake Group for other public and private sector clients, and demand forecasting for residential and non-residential activity.

### Housing Development Patterns

Orion Township is situated within Oakland County, which provides context for market opportunities within the Township.

- a. **Oakland County.** Oakland County has seen substantial growth in households since 2011, or the close of the Great Recession. More than 25,000 new housing units were permitted in Oakland County between 2011 and 2020. Of these units, about 20,500 were single-family homes, and roughly 4,700 were multi-household units. The latter represents 19 percent of all units permitted from 2011 to 2020. The average number of all units permitted between 2011 and 2021 was above the number permitted from 2004 through 2010. However, the number of units permitted in Oakland County peaked in 2004 and 2005 before the "housing bubble" collapse that followed. There was a statistically significant drop-off in new units permitted in 2020. Several unique factors resulted in the drop-off, not the least of which was the Covid Pandemic. Both single and non-single-family housing unit permits fell.

- b. **Orion Township.** Orion Township reported substantial growth in housing units permitted between 2011 and 2020. The Township permitted a total of 1,527 new homes during those years. The increase represents about 6 percent of the Oakland County total. As was the case in Oakland County, there was a statistically significant drop-off in new units permitted in 2020. Furthermore, non-single-household units permits were not issued in five of the ten years in the Township.



		Oakland County			Orion Township		
		All Units	Single-family	Non-single	All Units	Single-family	Non-single
2011-20	Total	25,155	20,459	4,696	1,527	1,234	293
	Percent of total	100%	81%	19%	100%	81%	19%
	Per year	2,516	2,046	470	153	123	29
2004-10	Total	17,170	14,255	2,915	440	412	28
	Percent of total	100%	83%	17%	100%	97%	3%
	Per year	2,453	2,036	416	63	59	4

## Institutional Influence

The institution that has the most significant impact on the area is General Motors. The Orion GM assembly plant began production almost 30 years ago in the early 1980s. The plant was at a time idled and has changed the type of vehicle produced several times since its inception.

The future of the plant appears to be brighter than the recent past. Several hundred million dollars was and is being reinvested to secure its future. The plant's production is being based on electronic vehicles. While electronic vehicles represent a small share of all manufactured fleet at this time, it is expected to become a substantial if not dominant share of production by 2025 and beyond.

## Resident Survey Analytics

Fundamental to the market assessment is a survey of area residents conducted online. More than 600 "unique" households, defined by IP addresses, responded to the survey. The following are characteristics of the households that responded to the survey.

### 1. Sample Characteristics

- About 38 percent of the responding households live in zip code 48360, while another 36% live in 48362. An additional 18 percent live in zip code 48359, with the remaining distributed in eight other zip code areas.
- The average number of people per responding household is 2.84.
- Just over one in ten households have only one member.
- The average age of the primary income earner is 54. However, 57 percent of the households have a primary income earner below 54 years old.
- About two in ten responding households have a primary income earner at least sixty-five years of age.
- About 58% of the respondents have a primary earner in the household between 45 to 64 years of age. Age of the Primary Income Earner in the Household is between 45-54 years for about 31% of the respondents.
- The average household owns or leases 2.4 vehicles.
- One-third of the households own two or more vehicles at least five years old, typically associated with lesser monthly loan payments.

### 2. Employment Conditions

- More than eight in ten households have one or more members employed full-time. Nineteen percent have no one employed full-time, closely paralleling the households where the primary income earner is at least 65 years of age.
- Eleven percent of the households have a member either under-employed or not now employed full-time but would like to be employed full-time.
- About four in ten households' employment conditions have been impacted by the Covid pandemic.
- The majority of the individuals (71%) impacted by Covid working part-time are between the ages of 35 and 64.
- The majority of the individuals (79%) impacted by Covid wanting full-time work are more concentrated between 45 and 64.
- About 10% of those wanting full-time work impacted by Covid have a high school education or less. The preponderance of those affected has a college degree.



- Those impacted are most often associated with the foodservice, automotive, educational, and medical sectors or industries.
- Despite Covid, the annual average (mean) total annual household income is \$126,000. The mean average is often fifty or more percent greater than the median employed in government statistics but is much more meaningful in demand forecasts. The mean better reflects purchasing power for all goods and services.

### 3. Spending Analytics

Households generally spend income and assets on three essential commodities.

#### 1. Food

Grocery spending is a surrogate for convenience shopping in general.

- The average amount spent weekly on groceries and related merchandise is \$146 per household.
- Three-fourths of the households have not changed their food shopping patterns since the Covid pandemic. Many others will go back to their former practices once the threat of Covid diminishes.
- Kroger and Meijer are dominant in the market, with a combined market share of 84 percent. Food is also purchased from food service and preparation establishments generally for consumption outside of the home.
- Before Covid, the majority ate lunch (59%) or dinner (67%) outside the home, purchasing the meal at foodservice operations at least once each week. The frequency of lunch trips may indicate of opportunities for food service establishments to operate during the day and in the evenings.
- Roughly one-half preferred to eat lunch at "local, non-chain full-service" operations. An even larger proportion of households chose such establishments for dinner.
- Sixty-two percent defined their frequented foodservice establishment for lunch as being in Orion Township.
- Sixty-nine percent defined their frequented foodservice establishment for dinner as being in Orion Township.
- Most dinner trips (86%) were made to food establishments fifteen minutes or less from home, with almost one-half of these within a five to ten-minute drive.

#### 2. Shopping

Apparel shopping is a surrogate for non-convenience shopping in general.

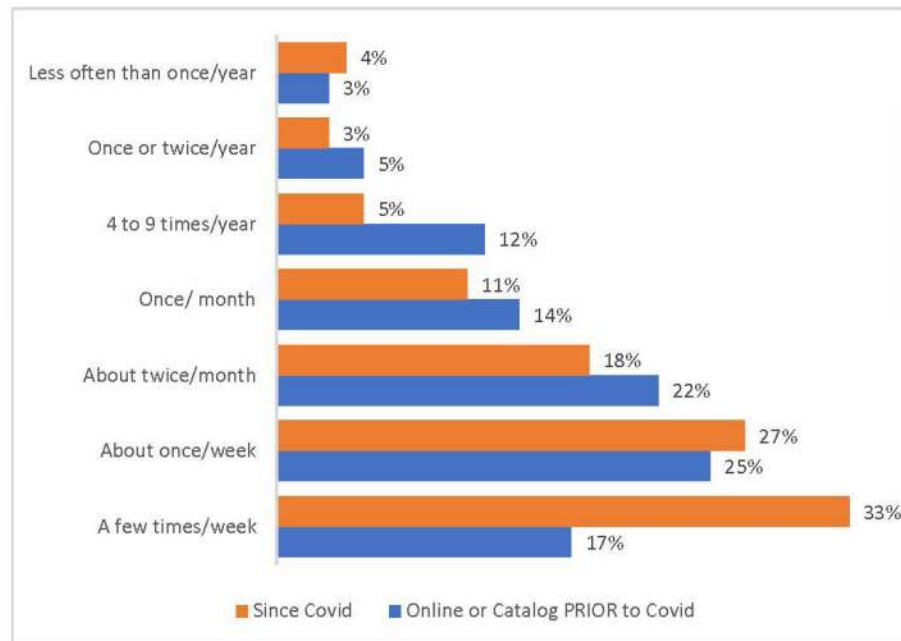
- The primary entities most often frequented or from which apparel purchases are made include Kohls and Amazon/other online sources.

Before the Covid pandemic, substantial online purchases were made by Orion area residents. Online purchases increased during the pandemic.

- More than one-third (42%) shopped online at least once per week before Covid. About 68 percent shopped online at least twice per month. Therefore, both convenience and non-convenience shopping dollars are exported from the area with regularity prior to Covid.
- Since Covid, those shopping at least once per week increased to 60 percent. Those shopping online at least twice per month rose to 78 percent.
- Based on the changes with convenience shopping associated with groceries, post-Covid online sales are expected to be roughly 50 percent weekly and 73 percent at least twice per month.

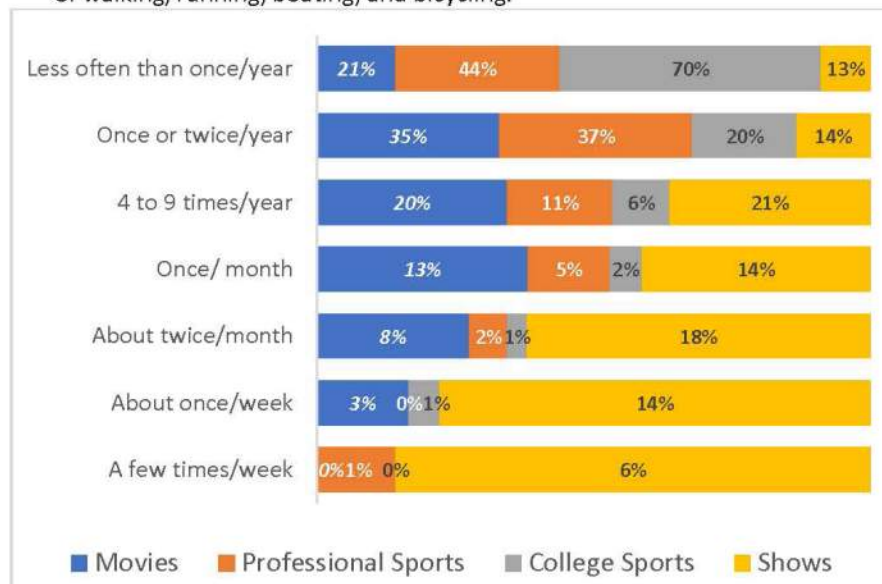






Because of online options, the blending of commercial development with entertainment is of increasing importance.

- About one in four households had a member partake of or participate in some form of entertainment at least twice each month before Covid.
- About one-fourth of the households had a member that went to see movies at a theater before Covid.
- The frequency of most forms of outdoor recreation activity is substantially above non-participatory entertainment. At least 17 percent of the households have members that participate in an outdoor recreational activity during season or year-round, including all forms of walking, running, boating, and bicycling.



### 3. Transportation

Across all age groups, the majority defines the availability of places that they can live, recreate, easily walk, and work at or near one location to be good. However, households with primary income earners 25 years of age or younger have the most members who feel the availability of places where they can live, recreate, easily walk, and work at or near one location to be "fair" or "poor."

*Table 17 - Evaluation of the Availability of Places that One Can Live, Recreate, Easily Walk, and Work at Or Near One Location\**

Characterization	Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 or over
1 Poor	20%	3%	10%	12%	10%	5%	9%
2 Fair	20%	20%	23%	21%	17%	32%	23%
3 Good	60%	33%	29%	31%	41%	35%	27%
4 Very Good	0%	33%	19%	23%	19%	24%	32%
5 Excellent	0%	10%	19%	13%	13%	5%	9%
Total	100%	100%	100%	100%	100%	100%	100%

Also, due to online options, the character of commercial development and its blending with walkability are of increasing importance. The majority of residents (72%) define Orion's shopping options to which they can easily walk as being "poor" or "fair."

*Table 18 - Evaluation of Orion's Characteristics Prior to Covid\**

Characteristic	Poor	Fair	Good	Very Good	Excellent
Housing options	3%	12%	34%	38%	14%
Availability of professional and personal services	2%	11%	36%	38%	13%
Shopping options to which I can easily walk	42%	30%	16%	7%	4%
Orion's shopping experience	9%	29%	39%	16%	7%
Orion's restaurant options	4%	15%	38%	31%	13%
Walking experiences that are safe, comfortable, and interesting	3%	10%	26%	35%	26%
The availability of places that I can live, recreate, easily walk, and work at or near one location	10%	23%	32%	22%	13%

## Property Trends Synopsis

Before 2021, residential sales indicated a range of prices per square foot. Factors included location, age of units, and many other factors.

- The average per square foot residential unit sales ranged from a low of \$160 to a high of \$246 in the general Orion area.
- The average condominium sales ranged from \$143 to a high of \$186 per square foot.
- Condominium fees ranged from \$200 to \$225 per month.
- The average sales price for condominiums ranged from a low of \$195,000 to a high of \$337,000.
- A sampling of retail space sold during the same time frame indicates that the average sale price per square foot was \$109. Property or units sold ranged from a low of 600 square feet to a high of more than 48,000 square feet.
- A recorded sampling of office space sold during the same time frame indicates that the average sale price per square foot was \$206. The average publicized rent per square foot was 429.
- There are very limited industrial space sales. For those sold, the average sale price was about \$93 per square foot.

It is noted that there has been a significant price escalation for the residential property during 2021. Many factors are driving the increases, including but not limited to extremely low mortgage rates, supply limitations partially resulting from the pandemic, limited labor supply, and rapidly rising costs of materials. The cost of construction for non-residential is being driven by the rising cost of materials and limited labor supply.

## Housing Market Analytics/Segmentation

The survey of residents indicates the following.

- Ninety-nine percent live in their home full-time.
- Ninety-four percent live there about ten months of the year.
- Ninety-four percent own their homes, and six percent rent.
- Ninety-one percent describe their housing unit as being a single-family home.
- About one-third have lived in their current home for 20 years or more.
- Almost one-fourth have only lived in their current home for less than five years.
- More than one-half (52%) of the households may or are likely to move within the next five years from their Orion area residences.
- The primary potential reasons for the move include changes in lifestyle, changes in the number of household members, and changes in physical or medical conditions.



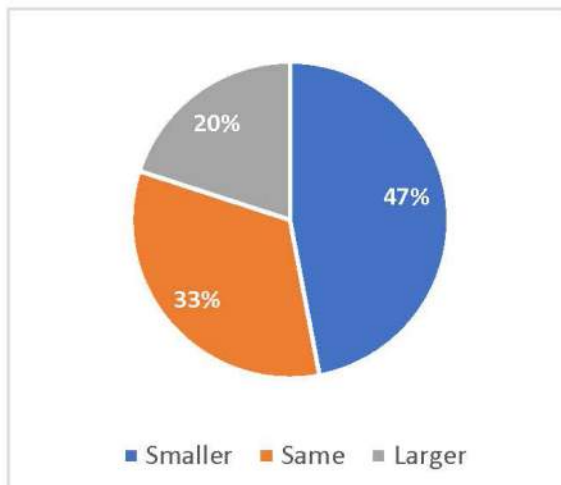
*Table 21 - Primary Reasons for Move for Those That May or Are Likely to Move in the Next Five Years\**

Reasons	Percent
lifestyle changes	34%
decrease in the number of people living in the residence	15%
changes in a household member's physical conditions/medical change	11%
changes in my or other household member's employment likely to result in leaving the area	7%
changes in fiscal conditions	5%
increase in the number of people living in the residence	3%
housing market conditions	2%
rental conditions	1%
graduate from a higher education institution with a degree	1%
Others	21%

- About one-half of those that may move in the next five years say they will stay in Michigan.
- In addition to those that may move, about three in ten households have an individual that will likely create a new household in the next three years.
- Age is not a factor in considering the availability of housing options in the Orion area, with most defining options as "very good" or "excellent."

Not all existing households have monthly payments. There are many reasons households do not have monthly payments, including those living in homes where mortgages are paid off.

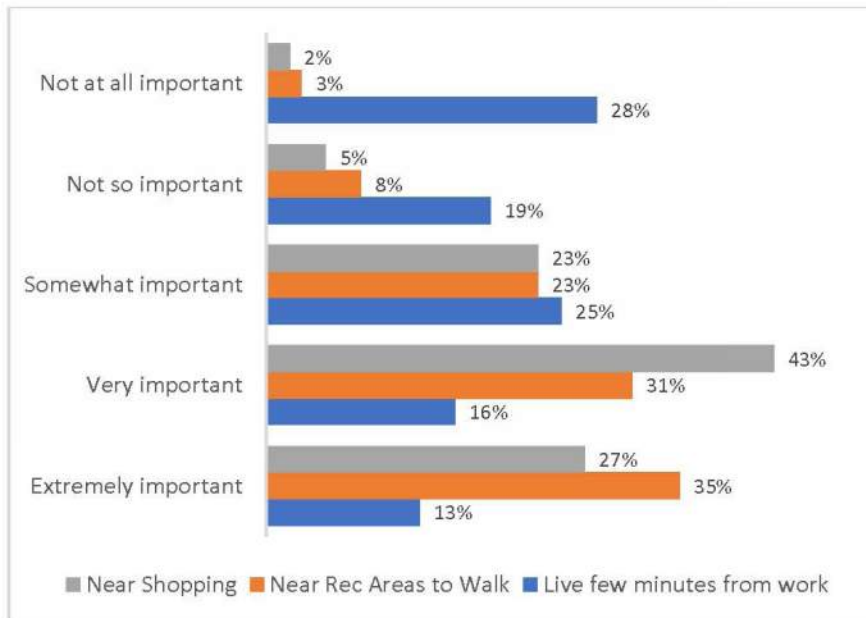
- The average monthly payment, including those without payments, is \$1,185.
- About 20 percent of the households have no monthly payments reflecting tenure, living with other relatives, and different situations.
- The average monthly payment is \$1,490 when those without payments are excluded.
- About one-half of all households have monthly payments between \$1,000 and \$2,000.
- There is a strong correlation between household income and monthly payments. In general, higher monthly payments are associated with higher-income households.
- Also, and in general, the more bedrooms in the home, the larger the unit in square feet.



For those that may move, almost one-half envision or desire a unit smaller than their current home.

- Whether the desire for a smaller, same-sized or larger home in the future for those likely to move, income is not a contributing factor. The majority for all sized units have annual household incomes above \$100,000, reflecting the potential affordability of moving to a new home.

- For the majority seeking a larger home, the unit would likely be greater than 1,500 square feet, with many being 2,000 square feet or more.
- For those likely to move to a smaller unit, the preponderance would seek a home likely in the range of 1,500 to under 2,000 square feet.
- Seventy percent of those who may move define living near shopping as "very" or "extremely" important.
- About two-thirds define living near recreational areas to walk as being "very" or "extremely" important.



## Demand Forecast

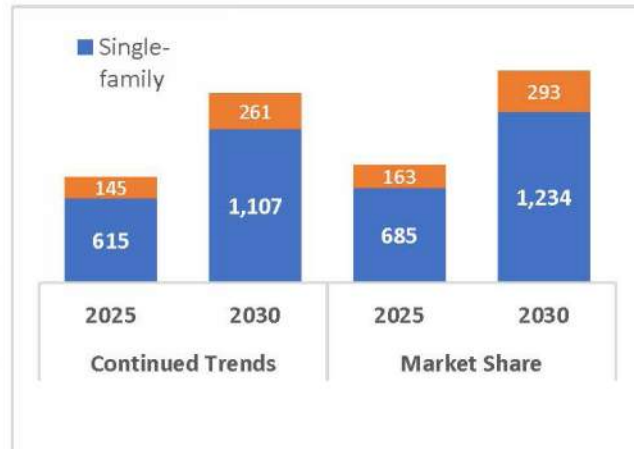
The following are estimates of marketable activity for Orion Township. Adjustments have been made to the survey data for demand forecast purposes based on known biases associated with online sampling. The opportunities are not linked to any specific development proposal or site but are a measure of potential within Orion and its core. The defined units and space may be beyond the holding capacity of available land but are for guidance with planning. Also, the ability to accommodate the demand may be limited by community desires and character.

### a. Housing

Based on historical patterns in the County, Orion Township, and an additional database derived from The Chesapeake Group's surveys of residents in other communities of the County, the potential for new housing units in Orion Township is defined.

Two scenarios are presented. One is defined as "Continued Trends," while the other is defined as "Market Share." Market share is an important economic concept implying "holding one's own" or maintaining economic parity. To reiterate, neither estimate is linked to the holding capacity of available land, current zoning, or any existing development regulations.

1. In the **Continued Trends alternative**, Orion Township will support a total of roughly 1,375 new units by 2030. Of the 1,375 units by 2030, 260 units could be non-single-household structures like duplexes, townhomes, and other attached structures. This total does not include any potential for developing an "active adult" community, unique niche opportunities, or the range of assisted living opportunities.
2. In the **Market Share alternative**, Orion Township will support a total of roughly 1,525 new units by 2030. Of the 1,525 units by 2030, about 290 units could be non-single-household structures. As is the case for the other alternative, the Market Share alternative total does not include any potential for developing an "active adult" community, unique niche opportunities, or the range of assisted living opportunities.



The majority of the units would likely be in the 1,250 to 1,750 square foot range.

#### b. Retail Goods & Related Services Space

New rooftops result in increased spending and demand for retail goods and related supportable space. It is noted that no jurisdiction can be expected to capture all demand created by any market. Spending will occur in many places, including operations near home and work. Online purchases, vacation spending, and other activity diminish local sales. On the other hand, people working within the area, employed nearby, and those coming to the area for a range of purposes will spend money in Orion. Some dollars are exported, while others are imported. Currently, the survey indicates an opportunity to diminish the exportation of dollars from Orion and other portions of the County residents, particularly in food, food services, and linked entertainment activity.

Based on the anticipated growth in rooftops and derived only from current and future residents of the County, Orion is expected to capture an additional 272,000 square feet of retail goods and related services space by 2030. Excluding transportation and vehicle service space, the figure is about 227,000 square feet.

Other than transportation and vehicle services space, most of the commercial opportunities are appropriate for land/parcels/structures associated with the future core of Orion's commercial areas or neighborhoods. Retail and entertainment are today and will continue to be in the future linked to "entertainment" so that one creates an experience, not merely a shopping trip or a trip to go to a restaurant. Much of the space will be in food services, with smaller regional chains and independent operations likely to garner the largest market share.



*Table 29 - Retail Goods and Related Services\**

Category	2021 Space (sf)	2030 Space (sf)	Net Increase 2021-30 Space (sf)
Food	167,700	182,668	14,967
Eat/Drink	241,390	262,933	21,543
General Merchandise	729,628	794,743	65,116
Furniture	60,663	66,076	5,414
Transportation	388,072	422,704	34,632
Drugstore	87,703	95,529	7,826
Apparel	154,260	168,025	13,767
Hardware	384,918	419,266	34,352
Vehicle Service	239,558	260,938	21,379
Miscellaneous	596,951	650,224	53,274
<b>TOTAL</b>	<b>3,050,843</b>	<b>3,323,106</b>	<b>272,270</b>

\*Developed by The Chesapeake Group, Inc. 2021.

**c. Multi-tenant Office Space**

The office market continues to change with the increased emphasis on flexible work arrangements, safe co-working space, and in-home live/work activity. Added rooftops increase demand for professional services and related space derived from the new households. Rooftop growth and the desire of people to work near home also provide the opportunity for office space growth.

New demand generates between 165,000 and 183,000 square feet of multi-tenant office space by 2030 in the Orion Township. Of this space, between 100,000 and 110,000 square feet can be captured and located outside of the home in existing or new spaces.

Some office space could be targeted toward software development linked to electronic and autonomous vehicle production and electronic vehicle charging systems.

**d. Multi-tenant Industrial Space**

Based on the market share concept and Oakland County's Economic Development Plan, between 195,000 and 215,000 square feet of new industrial space opportunity exists in Orion Township by 2030. "Flex space" is indicated to be marketable.

Areas of focus for the new activity would include those that follow.

- Start-up entrepreneurial activity in general.
- Electronic vehicle software, battery research or manufacturing, battery storage research and development for both vehicles and solar.
- Digitized software development.
- Drone/aerial autonomous vehicle enhancement and product development.

**e. Composite Opportunities**

In total and without consideration of potential opportunities, such as a large-scale active adult community or the attraction of a major manufacturing or warehouse distribution entity, Orion Township has the opportunity to capture about 1,500 new housing units, 270,000 square feet of new retail and personal services space, and 110,000 square feet of office space.

## Orion Township Appendix

### Oakland County Housing

Housing Permits	All Units	Single-family	Non-single
2011 thru 2020 total	25,155	20,459	4696
Percent of total	100%	81%	19%
per year	2,516	2,046	470
2004 thru 2010 total	17170	14255	2915
Percent of total	100%	83%	17%
Per year	2453	2036	416

\*Developed by The Chesapeake Group, Inc., 2021.

Year	2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total Units	1,782	2,842	2,642	3,707	3,196	2,645	2,458	2,705	1,901	1,277
Units in Single-Family Structures	1,378	1,976	2,482	2,744	2,143	2,180	2,114	2,296	1,880	1,266
Units in All Multi-Family Structures	404	866	160	963	1,053	465	344	409	21	11
Units in 2-unit Multi-Family Structures	8	0	16	4	60	58	16	14	6	0
Units in 3- and 4-unit Multi-Family Structures	89	83	71	105	49	44	49	60	15	11
Units in 5+ Unit Multi-Family Structures	307	783	73	854	944	363	279	335	0	0

\*Developed by The Chesapeake Group, Inc., 2021.

Year	2010	2009	2008	2007	2006	2005	2004
Total Units	1,230	456	801	1,218	2,462	4,638	6,365
Units in Single-Family Structures	959	443	667	1,135	1,984	4,050	5,017
Units in All Multi-Family Structures	271	13	134	83	478	588	1,348
Units in 2-unit Multi-Family Structures	4	0	2	12	58	26	40
Units in 3- and 4-unit Multi-Family Structures	26	13	15	22	46	39	129
Units in 5+ Unit Multi-Family Structures	241	0	117	49	374	523	1,179

\*Developed by The Chesapeake Group, Inc., 2021.

### Orion Township Housing

Housing Permits	All Units	Single-family	Non-single
2011 thru 2020	1527	1234	293
Percent of total	100%	81%	19%
per year	153	123	29
2004 thru 2010	440	412	28
Percent of total	100%	97%	3%
per year	63	59	4



\*Developed by The Chesapeake Group, Inc., 2021.

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total Units	103	129	198	250	160	172	220	176	75	44
Units in Single-Family Structures	103	129	198	226	153	124	119	63	75	44
Units in All Multi-Family Structures	0	0	0	24	7	48	101	113	0	0
Units in 2-unit Multi-Family Structures	0	0	0	0	0	18	0	4	0	0
Units in 3- and 4-unit Multi-Family Structures	0	0	0	0	0	6	4	12	0	0
Units in 5+ Unit Multi-Family Structures	0	0	0	24	7	24	97	97	0	0

\*Developed by The Chesapeake Group, Inc., 2021.

	2010	2009	2008	2007	2006	2005	2004
Total Units	22	5	14	41	76	106	176
Units in Single-Family Structures	22	5	14	39	66	92	174
Units in All Multi-Family Structures	0	0	0	2	10	14	2
Units in 2-unit Multi-Family Structures	0	0	0	2	0	14	2
Units in 3- and 4-unit Multi-Family Structures	0	0	0	0	4	0	0
Units in 5+ Unit Multi-Family Structures	0	0	0	0	6	0	0

\*Developed by The Chesapeake Group, Inc., 2021.

#### Single-family Residential Per Square Foot Sale Price in Orion Area 2019-2020

Zip Code	Sq. Ft. Sale Price
48359	\$171
48360	\$180
48362	\$160
48362 lakefront	\$246

\*Developed by The Chesapeake Group, Inc., 2021.

#### Condominiums

Zip Code	Sq Footage	Price	Sq Ft Cost	Homeowners/condo fee
48359	1336	305000	\$186	\$225
48360	1234	\$195,540	\$143	\$222
48362	1880	\$337,000	\$178	\$200

\*Developed by The Chesapeake Group, Inc., 2021.





## Retail space Real Estate Transaction Examples

Sale price of about \$109/square foot

Type	Sq. Ft	Age
Office/Retail	1,294	2006
Office/Retail	1,360	1993
Retail	14,820	2009
Retail	47,063	1993
Retail	48,362	1993
Retail	1,700	1988
Retail	6,750	1988
Retail	7,200	1987
Retail	1,025	1977
Retail	600	1975
Retail	1,300	1940
Retail	39,503	1925

\*Developed by The Chesapeake Group, Inc., 2021.

Type	Sq. Ft	Age
Office	3,841	2020
Office	3,076	2016
Office	1,200	2015
Office	1,464	2015
Office	3,008	2005
Office	3,116	2005
Office	3,194	2005
Office	3,140	2005
Office	3,347	2005
Office	1,940	2005
Office	1,700	1999
Office	6,705	1997
Office	2,235	1997
Office	2,235	1997
Office	2,235	1997
Office	1,600	1997
Office	1,200	1988
Office/Retail	1,294	2006
Office/Retail	1,360	1993

\*Developed by The Chesapeake Group, Inc., 2021.

Industrial limited examples. Sale price average of about \$93/square foot

#### Zip Codes from Survey

Zip Code	Percent
48360	38.1%
48362	35.7%
48359	18.3%
48348	4.0%
48371	2.1%
48326	0.4%
48370	0.4%
48363	0.2%
48369	0.2%
47362	0.2%
48320	0.2%
Total	100.0%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Number of People Living in The Home

Number of People	Percent
1	11%
2	31%
3	21%
4 or more	37%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Age of the Primary Income Earner

Age Cluster	Percent
Under 25	1%
25 to 34	7%
35 to 44	18%
45 to 54	31%
55 to 64	27%
65 to 74	14%
75 or over	5%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.



### Number of People in the Household Employed Full-time

Full-time Employment	Percent
0	19%
1	38%
2	37%
3	5%
4 or more	1%

\*Developed by The Chesapeake Group, Inc., 2021.

### Number in Household Employed Full-time

	None	One	Two	Three	4 or More
Under 25	0%	2%	1%	0%	0%
25 to 34	1%	6%	10%	0%	0%
35 to 44	2%	18%	26%	4%	0%
45 to 54	6%	34%	38%	44%	40%
55 to 64	21%	30%	21%	52%	40%
65 to 74	54%	7%	3%	0%	0%
75 or over	16%	3%	2%	0%	20%
Total	100%	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Anyone in the Household Not currently employed or Underemployed

Answer	Percent
Yes	11%
No	78%
Not certain	3%
Someone would like to work part-time	8%

\*Developed by The Chesapeake Group, Inc., 2021.

### Whether Employment in Household Impacted by Covid

Impacted	Percent of HH
Yes	40%
No	60%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.



## Age Category of those Wanting to Work Part-time Impacted by Covid

Age Cluster	Percent
Under 25	0%
25 to 34	3%
35 to 44	21%
45 to 54	39%
55 to 64	21%
65 to 74	11%
75 or over	5%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Age Category of those Wanting to Work Full-time Impacted by Covid

Age Cluster	Percent
Under 25	0%
25 to 34	3%
35 to 44	7%
45 to 54	38%
55 to 64	41%
65 to 74	9%
75 or over	2%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Industry or Area Previous to Covid

Industry/Area	Percent
Foodservice	13%
Automotive	12%
Education	8%
Medical	6%
Accounting	4%
Retail	4%
Marketing/Sales	4%
IT	4%
Hospitality	3%
Others	43%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Vehicles per household

Number	Percent of HH
0	34%
1	33%
2	22%
3	7%
4 or more	4%
4 or more	4%

\*Developed by The Chesapeake Group, Inc., 2021.

## Number of Personal Vehicles Owned or Leased per Household and Percent at least Five Years old

Number	All Vehicles Percent of HH	Percent of HH with Vehicle at least 5 yrs
0	1%	34%
1	12%	33%
2	46%	22%
3	29%	7%
4 or more	12%	4%
Total	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Walk or Bicycle for Employment Purposes

	Once/wk or more	Few X/mon	Once/mon	Few/yr	Less often	Rarely/never
Bicycle	3%	2%	1%	3%	1%	90%
Walk	7%	2%	1%	1%	1%	88%

\*Developed by The Chesapeake Group, Inc., 2021.

## Average Household Incomes

Income Range	Percent
Less than \$5,000	0.2%
\$7,500 to \$9,999	0.2%
\$10,000 to \$14,999	0.2%
\$20,000 to \$29,999	1.7%
\$30,000 to \$49,999	5.0%
\$50,000 to \$74,999	12.5%
\$75,000 to \$99,999	13.8%
\$100,000 to \$149,999	30.0%
\$150,000 to \$199,999	17.2%
\$200,000 to \$249,999	9.5%
\$250,000 or more	9.7%

\*Developed by The Chesapeake Group, Inc., 2021.

### General Amount Spent on Food/Grocery-related Merchandise in a Week

Amount	Percent
Less than \$35	0%
\$35 to \$44.99	2%
\$45 to \$59.99	4%
\$60 to \$74.99	7%
\$75 to \$99.99	11%
\$100 to \$124.99	22%
\$125 to \$149.99	19%
\$150 to \$199.99	16%
\$200 to \$249.99	11%
\$250 to \$299.99	4%
\$300 or more	5%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Change in Pattern Since Covid and Belief that Change is Permanent

Change in Grocery Shopping & Permanence	Percent
No change from before.	75%
Now have most groceries delivered and will likely be permanent.	5%
Now have most groceries delivered but not likely to continue after the threat of the virus has diminished.	3%
Now use pick-up service versus shopping myself and will likely continue after virus threat has diminished.	8%
Now use pick-up service but will go back to shopping once the threat of the virus has diminished.	5%
Not certain or applicable.	5%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Store frequented/Market Share

Operation	Percent
Kroger	60%
Meijer	24%
Aldi	3%
Whole Foods	3%
Costco	3%
Trader Joe's	2%
Hollywood Market	1%
Sam's Club	1%
Walmart	1%
Others	3%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.





## Frequency of Eating Outside the Home at a Foodservice Establishment pre-Covid

Frequency	Lunch	Dinner
A few times/week	27%	26%
About once/week	32%	41%
About twice/month	14%	16%
Once/ month	12%	9%
4 to 9 times/year	8%	4%
Once or twice/year	5%	2%
Less often than once/year	2%	1%
Total	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Type of Foodservice establishment Frequented for Lunch and Dinner Pre-Covid

Type of Establishment	Lunch	Dinner
A national or regional chain full-service, sit-down restaurant	5%	11%
A local non-chain independent full-service, sit-down restaurant	51%	72%
A local non-chain independent limited-service restaurant	7%	7%
Fast casual operation (like Chipotle or Noodles)	14%	2%
Fast food operation (like McDonalds or Taco Bell)	13%	2%
All you can eat buffet	0%	0%
Sub shop	5%	0%
Other	5%	5%
Total	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Orion Location of Lunch and Dinner Establishment Pre-Covid

In Orion	Lunch	Dinner
Yes	62%	69%
No	33%	26%
Not Sure	5%	5%
Total	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Drive Time to Dinner Establishment Frequented

Drive Time	Percent
Less than 5 minutes	15%
5 to 10 minutes	41%
11 to 15 minutes	30%
16 to 25 minutes	10%
More than 25 minutes	2%
Not certain or applicable	3%
Total	100%

## Name of the Operation and Market Share for Apparel

Operation	Percent
Kohl's	35%
Amazon/Online	10%
Costco	5%
Target	5%
Old Navy	4%
Nordstrom	3%
Macy's	3%
Loft	2%
Eddie Bauer	2%
Marshalls	2%
Meijer	2%
Salvation Army	1%
J Crew	1%
Stitch Fix	1%
Talbots	1%
Walmart	1%
Ann Taylor	1%
Banana Republic	1%
J Jill	1%
JCP	1%
Lululemon	1%
Athleta	1%
Bass Pro Shop	1%
Buckle	1%
Chicos	1%
Evereve	1%
Gap	1%
Lane Bryant	1%
Sam's Club	1%
Torrid	1%
Twice Blessed	1%
Others	15%
Total	100%



\*Developed by The Chesapeake Group, Inc., 2021.

#### Exportation of Dollars Via the Internet Pre and Since Covid

	Online or Catalog PRIOR to Covid	Since Covid
A few times/week	17%	33%
About once/week	25%	27%
About twice/month	22%	18%
Once/ month	14%	11%
4 to 9 times/year	12%	5%
Once or twice/year	5%	3%
Less often than once/year	3%	4%
Total	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Description of Current Home

Description of the Home	Percent
single-family home	90.8%
duplex	0.2%
townhouse	0.7%
loft	0.2%
condominium	5.4%
farm	0.6%
Student housing on the campus of a higher education institution	0.2%
Other	2.0%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Tenure in Current Home

Tenure	Percent
2 years or less	11%
3 to 4 years	12%
5 to 9 years	19%
10 to 19 years	24%
20 or more years	34%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.





### Potential to Move in the Next Five Years

Likely to Move	Percent
Yes	29%
No	48%
Maybe	23%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Primary Reasons for Move

Reasons	Percent
life-style changes	34%
decrease in the number of people living in the residence	15%
changes in a household member's physical conditions/medical change	11%
changes in mine or other household member's employment likely to result in leaving the area	7%
changes in fiscal conditions	5%
increase in the number of people living in the residence	3%
housing market conditions	2%
rental conditions	1%
graduate from a higher education institution with a degree	1%
Others	21%

\*Developed by The Chesapeake Group, Inc., 2021.

### Likelihood of Staying in Michigan

Stay	Percent
Yes	24%
No	47%
Uncertain	25%

\*Developed by The Chesapeake Group, Inc., 2021.

### Potential for Generation of a New Household from Existing Families in the next three Years

New household created in 3 years	Percent
Yes, one person	20%
Yes, more than one person	10%
No	66%
Not sure or maybe	4%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Housing Options in Orion

	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 or over
1 Poor	0%	2%	2%	4%	3%	8%
2 Fair	10%	15%	13%	13%	8%	4%
3 Good	43%	31%	30%	34%	38%	29%
4 Very Good	37%	34%	34%	40%	45%	46%
5 Excellent	10%	17%	21%	10%	6%	13%
	100%	100%	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Current Monthly Payments

Monthly Range	Percent of HH
None	20%
Less than \$750/month	5%
\$750 to \$999/month	12%
\$1,000 to \$1,249/month	16%
\$1,250 to \$1,499/month	14%
\$1,500 to \$1,749/month	11%
\$1,750 to \$1,999/month	7%
\$2,000 to \$2,249/month	5%
\$2,250 to \$2,499/month	3%
\$2,500 to \$2,999/month	4%
\$3,000 or more/month	2%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

## Housing Monthly Payment and Average Household Income

	\$20,000 to \$29,999	\$30,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$149,999	\$150,000 to \$199,999	\$200,000 to \$249,999	\$250,000 or more
None	0%	15%	17%	23%	12%	5%	0%	28%
Less than \$750/month	0%	23%	3%	7%	5%	0%	0%	0%
\$750 to \$999/month	40%	23%	37%	17%	18%	8%	0%	0%
\$1,000 to \$1,249/month	60%	23%	20%	27%	19%	18%	8%	6%
\$1,250 to \$1,499/month	0%	15%	10%	13%	19%	16%	24%	11%
\$1,500 to \$1,749/month	0%	0%	10%	3%	14%	18%	12%	11%
\$1,750 to \$1,999/month	0%	0%	0%	3%	8%	8%	8%	6%
\$2,000 to \$2,249/month	0%	0%	3%	7%	1%	11%	16%	6%
\$2,250 to \$2,499/month	0%	0%	0%	0%	1%	13%	8%	6%
\$2,500 to \$2,999/month	0%	0%	0%	0%	1%	3%	16%	17%
\$3,000 or more/month	0%	0%	0%	0%	0%	0%	8%	11%
Total	100%	100%	100%	100%	100%	100%	100%	100%



\*Developed by The Chesapeake Group, Inc., 2021.

### Number of Bedrooms and Square Footage

Square Footage	1-Bedroom	2-bedroom	3-Bedroom	4 or more
Under 750 square feet	40%	10%	0%	0%
750 to 999 square feet	60%	35%	4%	1%
1,000 to 1,499 square feet	0%	30%	22%	5%
1,500 to 1,999 square feet	0%	20%	40%	15%
2,000 to 2,499 square feet	0%	0%	20%	29%
2,500 to 2,999 square feet	0%	5%	10%	27%
3,000 to 3,499 square feet	0%	0%	4%	21%
3,500 square feet or more	0%	0%	1%	2%
Total	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Number of Bedrooms and Monthly Payment

Monthly Payment	1-Bedroom	2-Bedrooms	3=Bedrooms	4 or more
None	20%	10%	22%	16%
Less than \$750/month	20%	15%	5%	3%
\$750 to \$999/month	40%	30%	20%	0%
\$1,000 to \$1,249/month	0%	30%	17%	17%
\$1,250 to \$1,499/month	20%	0%	20%	15%
\$1,500 to \$1,749/month	0%	10%	7%	13%
\$1,750 to \$1,999/month	0%	5%	7%	8%
\$2,000 to \$2,249/month	0%	0%	1%	11%
\$2,250 to \$2,499/mon	0%	0%	1%	9%
\$2,500 to \$2,999/month	0%	0%	2%	6%
\$3,000 or more/month	0%	0%	0%	3%
Total	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Monthly Payment by Square Footage of Home

	Under 750 Square feet	750 to 999 Square feet	1,000 to 1,499 square feet	1,500 to 1,999 square feet	2,000 to 2,499 square feet	2,500 to 2,999 square feet	3,000 to 3,499 square feet	3,500 square feet or +
None	25%	7%	16%	16%	20%	7%	21%	28%
Less than \$750/month	75%	7%	12%	3%	2%	7%	0%	0%
\$750 to \$999/month	25%	57%	29%	19%	9%	7%	0%	0%
\$1,000 to \$1,249/month	0%	21%	28%	23%	18%	15%	3%	12%
\$1,250 to \$1,499/month	0%	7%	9%	23%	20%	15%	21%	0%
\$1,500 to \$1,749/month	0%	0%	6%	11%	13%	12%	14%	4%
\$1,750 to \$1,999/month	0%	0%	1%	3%	4%	12%	10%	4%
\$2,000 to \$2,249/month	0%	0%	0%	2%	5%	10%	17%	4%





\$2,250 to \$2,499/mon	0%	0%	0%	0%	5%	7%	3%	24%
\$2,500 to \$2,999/month	0%	0%	0%	0%	2%	5%	7%	16%
\$3,000 or more/month	0%	0%	0%	0%	2%	2%	3%	8%
Total	100%	100%	100%	100%	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### For Those That Are Likely or May Move, desired Size of the Next Home Compared to Current Home

Future Scale	Percent
Smaller	47%
Same	33%
Larger	20%
Total	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Income Level of Those Likely to Move By Desired Relative Size of the Next Home

Income Cluster	Smaller	Same	Larger
Less than \$5,000	0%	0%	0%
\$7,500 to \$9,999	0%	0%	0%
\$10,000 to \$14,999	0%	0%	0%
\$20,000 to \$29,999	3%	3%	0%
\$30,000 to \$49,999	8%	3%	5%
\$50,000 to \$74,999	12%	7%	23%
\$75,000 to \$99,999	7%	19%	16%
\$100,000 to \$149,999	31%	32%	32%
\$150,000 to \$199,999	17%	16%	14%
\$200,000 to \$249,999	14%	11%	7%
\$250,000 or more	9%	10%	5%
total	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

#### Current Square Footage and Desired Scale if the Next Home

Current Home Size	Smaller	Same	Larger
Under 750 square feet	0%	0%	6%
750 to 999 square feet	0%	7%	15%
1,000 to 1,499 square feet	6%	15%	29%
1,500 to 1,999 square feet	17%	24%	31%
2,000 to 2,499 square feet	29%	18%	8%
2,500 to 2,999 square feet	18%	16%	10%
3,000 to 3,499 square feet	17%	10%	0%
3,500 square feet or more	14%	10%	2%
Total	100%	100%	100%



\*Developed by The Chesapeake Group, Inc., 2021.

### Importance of Select Characteristics for the Next Home

	Live few minutes from work	Near Rec Areas to Walk	Near Shopping
Extremely important	13%	35.38%	27%
Very important	16%	30.73%	43%
Somewhat important	25%	23.28%	23%
Not so important	19%	7.82%	5%
Not at all important	28%	2.79%	2%
Total	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Evaluation of the Availability of Places that One Can Live, Recreate, Easily Walk, and Work at Or Near One Location

Characterization	Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 or over
1 Poor	20%	3%	10%	12%	10%	5%	9%
2 Fair	20%	20%	23%	21%	17%	32%	23%
3 Good	60%	33%	29%	31%	41%	35%	27%
4 Very Good	0%	33%	19%	23%	19%	24%	32%
5 Excellent	0%	10%	19%	13%	13%	5%	9%
Total	100%	100%	100%	100%	100%	100%	100%

\*Developed by The Chesapeake Group, Inc., 2021.

### Evaluation of Orion's Characteristics Prior to Covid

Characteristic	Poor	Fair	Good	Very Good	Excellent
Housing options	3%	12%	34%	38%	14%
Availability of professional and personal services	2%	11%	36%	38%	13%
Shopping options to which I can easily walk	42%	30%	16%	7%	4%
Orion's shopping experience	9%	29%	39%	16%	7%
Orion's restaurant options	4%	15%	38%	31%	13%
Walking experiences that are safe, comfortable, and interesting	3%	10%	26%	35%	26%
The availability of places that I can live, recreate, easily walk, and work at or near one location	10%	23%	32%	22%	13%

\*Developed by The Chesapeake Group, Inc., 2021.



## Entertainment &amp; Leisure Activity

Pre-Covid Frequency	Movies	Profess Sports	College Sports	Shows
A few times/week	0%	1%	0%	6%
About once/week	3%	0%	1%	14%
About twice/month	8%	2%	1%	18%
Once/ month	13%	5%	2%	14%
4 to 9 times/year	20%	11%	6%	21%
Once or twice/year	35%	37%	20%	14%
Less often than once/year	21%	44%	70%	13%

\*Developed by The Chesapeake Group, Inc., 2021.

## Frequency of Outdoor Recreational Activity in which One or More Household Member Participates

	More than once/wk	Once/wk	Few X/mon	About every mon	4-9 X/yr	Few X/yr	Once/yr	Less often or never
Fishing	7%	5%	6%	2%	6%	14%	9%	51%
Boating	19%	5%	4%	4%	8%	15%	9%	36%
Kayaking	8%	6%	7%	3%	8%	11%	6%	50%
Hunting	2%	1%	2%	1%	7%	6%	5%	77%
Birding/Nature Walks	18%	10%	12%	7%	10%	14%	4%	25%
Hiking	16%	11%	9%	7%	9%	13%	5%	30%
Bicycling	18%	10%	14%	7%	9%	12%	5%	27%
Walking	59%	13%	11%	5%	3%	4%	1%	3%
Running/Jogging	17%	5%	6%	2%	2%	4%	2%	62%

\*Developed by The Chesapeake Group, Inc., 2021.

## Types of activity or business desired in order of frequency noted

Another grocery store than Kroger (Ninos style\*\*, Whole Foods, Trader Joes)  
 Fresh food or Farmers Market  
 Hospital & Related  
 Better/Healthy Restaurants  
 24 hour urgent care  
 Tech industry  
 Bakery  
 Butcher  
 Manufacturing



## Household growth (conservative Estimate)

New Units/year	Total Units	Single-family	Non-single
Continued Trends			
2025	765	615	145
2030	1377	1107	261
Market Share			
2025	848	685	163
2030	1527	1234	293

\*Developed by The Chesapeake Group, Inc., 2021.

## Retail Goods and Related Services

Category	2021 Space	2030 Space	2021-30 Space
Food	167,700	182,668	14,967
Eat/Drink	241,390	262,933	21,543
General Merchandise	729,628	794,743	65,116
Furniture	60,663	66,076	5,414
Transportation	388,072	422,704	34,632
Drugstore	87,703	95,529	7,826
Apparel	154,260	168,025	13,767
Hardware	384,918	419,266	34,352
Vehicle Service	239,558	260,938	21,379
Miscellaneous	596,951	650,224	53,274
TOTAL	3,050,843	3,323,106	272,270

\*Developed by The Chesapeake Group, Inc., 2021.

Category	2021 Sales	2030 Sales	2021-30 Sales	2021 Space	2030 Space	2021-30 Space
Food	\$105,424,000	\$114,833,000	\$9,408,000	167,700	182,668	14,967
Eat/Drink	101,384,000	110,432,000	9,048,000	241,390	262,933	21,543
General Merchandise	122,931,000	133,902,000	10,971,000	729,628	794,743	65,116
Furniture	26,356,000	28,708,000	2,352,000	60,663	66,076	5,414
Transportation	118,410,000	128,977,000	10,567,000	388,072	422,704	34,632
Drugstore	89,457,000	97,440,000	7,983,000	87,703	95,529	7,826
Apparel	55,598,000	60,560,000	4,962,000	154,260	168,025	13,767
Hardware	94,459,000	102,888,000	8,430,000	384,918	419,266	34,352
Vehicle Service	98,402,000	107,184,000	8,782,000	239,558	260,938	21,379
Miscellaneous	149,479,000	162,819,000	13,340,000	596,951	650,224	53,274
TOTAL	\$961,900,000	\$1,047,743,000	\$85,843,000	3,050,843	3,323,106	272,270

\*Developed by The Chesapeake Group, Inc., 2021.

Sub-category	2021 Sales	2030 Sales	2021-30 Sales	2021 Space	2030 Space	2021-30 Space
Food	\$105,424,000	\$114,833,000	\$9,408,000	167,700	182,668	14,967
Supermarkets	88,029,040	95,885,555	7,855,680	133,377	145,281	11,903
Independents	8,433,920	9,186,640	752,640	21,085	22,967	1,882
Bakeries	2,319,328	2,526,326	206,976	7,731	8,421	690
Dairies	1,370,512	1,492,829	122,304	3,807	4,147	340
Others	5,271,200	5,741,650	470,400	1,700	1,852	152
Eat/Drink	101,384,000	110,432,000	9,048,000	241,390	262,933	21,543
General Merchandise	122,931,000	133,902,000	10,971,000	729,628	794,743	65,116
Dept. Stores	43,517,574	47,401,308	3,883,734	181,323	197,505	16,182
Variety Stores	8,851,032	9,640,944	789,912	52,065	56,711	4,647
Jewelry	8,482,239	9,239,238	756,999	11,947	13,013	1,066
Sporting Goods/Toys	13,399,479	14,595,318	1,195,839	53,598	58,381	4,783
Discount Dept.	46,099,125	50,213,250	4,114,125	419,083	456,484	37,401
Antiques, etc.	614,655	669,510	54,855	2,672	2,911	239
Others	1,966,896	2,142,432	175,536	8,940	9,738	798
Furniture	26,356,000	28,708,000	2,352,000	60,663	66,076	5,414
Furniture	3,979,756	4,334,908	355,152	12,838	13,984	1,146
Home Furnishings	5,482,048	5,971,264	489,216	20,304	22,116	1,812
Store/Office Equip.	4,164,248	4,535,864	371,616	8,676	9,450	774
Music Instr./Suppl.	1,133,308	1,234,444	101,136	5,667	6,172	506
Radios, TV, etc.	11,596,640	12,631,520	1,034,880	13,178	14,354	1,176
Transportation	118,410,000	128,977,000	10,567,000	388,072	422,704	34,632
New/Used Vehicles	41,443,500	45,141,950	3,698,450	103,609	112,855	9,246
Tires, Batt., Prts.	52,218,810	56,878,857	4,660,047	217,578	236,995	19,417
Marine Sales/Rentals	6,275,730	6,835,781	560,051	16,961	18,475	1,514
Auto/Truck Rentals	18,471,960	20,120,412	1,648,452	49,924	54,379	4,455
Drugstore	89,457,000	97,440,000	7,983,000	87,703	95,529	7,826
Apparel	55,598,000	60,560,000	4,962,000	154,260	168,025	13,767
Men's and Boy's	7,283,338	7,933,360	650,022	18,208	19,833	1,625
Women's and Girl's	18,458,536	20,105,920	1,647,384	49,888	54,340	4,452
Infants	1,167,558	1,271,760	104,202	3,892	4,239	347
Family	15,456,244	16,835,680	1,379,436	61,825	67,343	5,518
Shoes	11,619,982	12,657,040	1,037,058	13,205	14,383	1,178
Jeans/Leather	222,392	242,240	19,848	741	807	66
Tailors/Uniforms	1,000,764	1,090,080	89,316	5,004	5,450	447
Others	389,186	423,920	34,734	1,497	1,630	134
Hardware	94,459,000	102,888,000	8,430,000	384,918	419,266	34,352
Hardware	45,718,156	49,797,792	4,080,120	166,248	181,083	14,837
Lawn/Seed/Fertil.	1,794,721	1,954,872	160,170	5,279	5,750	471
Others	46,946,123	51,135,336	4,189,710	213,391	232,433	19,044
Vehicle Service	98,402,000	107,184,000	8,782,000	239,558	260,938	21,379
Gasoline	33,456,680	36,442,560	2,985,880	23,074	25,133	2,059
Garage, Repairs	64,945,320	70,741,440	5,796,120	216,484	235,805	19,320
Miscellaneous	149,479,000	162,819,000	13,340,000	596,951	650,224	53,274
Advert. Signs, etc.	2,391,664	2,605,104	213,440	8,697	9,473	776
Barber/Beauty shop	9,118,219	9,931,959	813,740	45,591	49,660	4,069
Book Stores	6,876,034	7,489,674	613,640	38,200	41,609	3,409
Bowling	3,438,017	3,744,837	306,820	34,380	37,448	3,068
Cig./Tobacco Dealer	1,046,353	1,139,733	93,380	2,093	2,279	187
Dent./Physician Lab	5,979,160	6,512,760	533,600	18,397	20,039	1,642
Florist/Nurseries	11,210,925	12,211,425	1,000,500	26,379	28,733	2,354
Laundry, Dry Clean	5,082,286	5,535,846	453,560	16,941	18,453	1,512
Optical Goods/Opt.	3,587,496	3,907,656	320,160	10,250	11,165	915
Photo Sup./Photog.	10,314,051	11,234,511	920,460	29,469	32,099	2,630



Sub-category	2021 Sales	2030 Sales	2021-30 Sales	2021 Space	2030 Space	2021-30 Space
Printing	12,107,799	13,188,339	1,080,540	44,028	47,958	3,929
Paper/Paper Prod.	6,427,597	7,001,217	573,620	32,138	35,006	2,868
Gifts/Cards/Novel.	21,375,497	23,283,117	1,907,620	71,252	77,610	6,359
Newsstands	1,195,832	1,302,552	106,720	2,392	2,605	213
Video Rent/Sales	19,432,270	21,166,470	1,734,200	97,161	105,832	8,671
Others	29,895,800	32,563,800	2,668,000	119,583	130,255	10,672
TOTAL	\$961,900,000	\$1,047,743,000	\$85,843,000	3,050,843	3,323,106	272,270

\*Developed by The Chesapeake Group, Inc., 2021.





## Appendix E

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### Student Art Submittals

ORION TOWNSHIP MASTER PLAN 2021

**GREAT PLACES**  
*Art Contest*



My GREAT PLACE is		The Entrance To Paradise	
NAME	Ashton Saber	AGE	10



ORION TOWNSHIP MASTER PLAN 2021

GREAT PLACES  
*Art Contest*



My GREAT PLACE is

NAME	hazel-Hazel	AGE	10-11
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DRAGON FALLS

By: Chloe Smith, Age 12

Intentionally Blank



PREPARED BY:

Giffels Webster - 1025 East Maple, Suite 100 | Birmingham, MI  
48009

