

Fresh Coast Planning

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MEMORANDUM

To: Robinson Township Planning Commission
From: Gregory L. Ransford, MPA
Date: March 29, 2023
Re: Final Revisions

Pursuant to your direction at your March 14, 2023 meeting, attached are several draft chapters and maps following revisions, as you requested. As you know, you directed us to perform the following.

- Chapter One
 - Revise second paragraph to reference a summary rather than the entire survey results, but inform the reader the results are available at the Township Hall
 - Change “cluster” to “focus” in the core values
- Chapter Two
 - Page 8 – Delete the TBD bullet point
 - Goal – repeat the 3rd bullet point goal from Page 9 in the goals of this chapter
- Chapter Three
 - Page 10, Strategy 3 – Investigate the origin of this language
- Chapter Four
 - Introduction, paragraph 2 – Add “Bass Creek”
- Chapter Five
 - Primary Growth Area, Recommendation 7 – Revise to “limit driveways through interconnection of service...”
 - Eliminate awkward page break
- Chapter Seven
 - Strategy 5 – Delete “its”
- Chapter Nine
 - Page 31 Table, row 3 – Delete “typically”
 - Change all “private street” language to “private road”
- Chapter Ten
 - Page 35 – add Mobile Home and R-3 to the table
- Appendix & Maps
 - Include the Dr. Lusch report and map
 - Remove survey and workshop results and use a summary that references the data is available at the Township Hall
 - Eliminate Agricultural and Open Spaces Map
 - Parks and Recreation Map
 - Add marinas to the map
 - Correct several map titles and make sure they match the Appendix list
 - Street Map
 - Update streets as noted by Commissioner Vugteveen
 - Hydrology Features Map
 - Add drain names
 - Master Plan Map
 - Modify North Cedar Drive and 104th Avenue commercial to match the Zoning Map, change a portion of the commercial to the Rural Residential areas
 - Reduce commercial at Lake Michigan Drive and 144th Avenue

- Update revisions block

We believe the attached achieve your direction. However, we note the following for your continued review.

- Master Plan Map – No changes were made to the North Cedar Drive and 104th Avenue area to “match the Zoning Map” because it already matches said map.
- Chapter 3, page 10, Strategy 3 – We reviewed our notes and found that the language was newly created and therefore did not carry over from the current Master Plan documents. While we do not recall its exact purpose, we found that at your January 11, 2022 meeting, you instructed us to revise the language to what is within the Chapter now, “Conduct a hydrogeological study...” from “Conduct a groundwater aquifer quality study...”
- Parks & Recreation Areas Map – since your previous review of this map, the legend additionally contains “Non-motorized pathways,” “Spoonville Trail Expansion,” and “Marinas.”

Additionally, you requested a map showing only the R-2 Zoning District for your review to consider High Density Residential Classification on the Mater Plan Map. An R-2 Map is attached for your review.

Planning Commission Considerations

While we would ordinarily draft a synopsis of items for your consideration, we believe the above items would simply be repeated. Further, while we previously bundled the entire master plan at your March meeting, we have only included those chapters and maps that were revised since the last meeting with this memorandum.

We will be prepared to discuss these items further at your April 11, 2023 meeting. If you have any questions, please let us know.

GLR
Principal Planner

Attachments

cc: Frank Johnson, Supervisor

Chapter One

Community Preferences

Introduction

Important to the residents and property owners of Robinson Township are the preferences by which they envision or define the appearance, character, and values of their community.

~~As provided in its entirety within the appendix,~~ **To capture those preferences,** Robinson Township completed a community survey as well as three community workshops with the public. ~~to gauge the pulse of its property owners.~~ While the workshop areas generally encompassed the entirety of the township, the discussions were focused on agricultural lands, residential uses, and the commercial overlay. The community survey engaged the public in the same discussions as well as other interests of the community, such as transportation and recreation. Together, the workshops and community survey provided the following values, preferences, attributes, and design mechanisms, which are used to develop the foundation on which most of the goals, recommendations, and strategies within this Master Plan are based. **A summary of the survey and workshops is available within the Appendix.**

Definition of Terms

In order to streamline the content of the community survey and workshop results, the following terms are recognized as defined below.

- *Rural Character* – is recognized as the natural features of the earth that minimize the visual exposure of buildings, structures, or other man-made features and which create scenic character. It is also recognized as the natural features of the earth that provide environmental buffers and/or habitat that is characteristic of the Township. Features are found to include:
 - Woods, woodlots, forest areas, and trees
 - Wetlands
 - Natural vegetation
 - Wildlife habitat
 - Wildlife corridors
 - Natural field areas
 - Scenic vistas
 - Ponds and other bodies of water

Rural Character also includes farmland, which is recognized as part of the natural features that are organized and managed by man.

- *Open Space* – is recognized as areas of land unoccupied by buildings, structures, or other man-made features, that are preserved to be unoccupied by buildings, structures, or other man-made features within a project. Open Space may include displays of art or other

cultural features; bridges, signage, utilities, and other essential service structures; or grade level features such as ponds.

- *Agriculture* – is recognized as the art or science of plowing and cultivating soil; raising and harvesting crops; and feeding, breeding, and managing livestock. Agriculture includes, by way of illustration and not limitation, farming, horticulture, forestry, dairying, sugar production, shrub and sod farming, etcetera. Farming includes the land, plants, animals, buildings, structures, including ponds used for agricultural or aquacultural activities, machinery, equipment, and other appurtenances used in the commercial production of farm products. Agriculture also includes:
 - Farmer’s markets
 - You-Pick activities
 - Agri-tourism such as corn mazes, tasting rooms, etcetera

Findings

Below is a summary of findings derived from the community survey and workshop results.

- *Core Values* – the following attributes have been identified as core values for the Township:
 - Preserve and maintain rural character and open space
 - Preserve and protect farmland from premature development
 - Provide buffers between residential development and agricultural lands
 - ~~Cluster~~ **Cluster Focus** development to protect agricultural lands
 - Limit public water extensions to slow development
- *Agricultural Interests* – the following have been identified as important regarding agricultural lands
 - Restrict non-agricultural uses from agricultural areas
 - Promote agricultural growth
 - Provide for landscape buffers between agricultural land and an adjacent roadway or waterway
 - Multi-use pathways are appropriate adjacent to agriculture
- *Residential Interests* – the following have been identified as important regarding residential uses:
 - Cluster residential development
 - Provide for large lots
 - Maintain current density limits
 - Limit multi-family residential development
- *Commercial and Industrial Interests* – the following have been identified as important regarding commercial and industrial uses
 - No expansion of commercial or industrial uses without public water and sanitary sewer

- Limit light and heavy manufacturing facilities
- Traditional brick and vinyl commercial facades are most favorable
- Mixed-use buildings should be discouraged

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To capture those preferences, Robinson Township completed a community survey as well as three community workshops with the public. While the workshop areas generally encompassed the entirety of the township, the discussions were focused on agricultural lands, residential uses, and the commercial overlay. The community survey engaged the public in the same discussions as well as other interests of the community, such as transportation and recreation. Together, the workshops and community survey provided the following values, preferences, attributes, and design mechanisms, which are used to develop the foundation on which most of the goals, recommendations, and strategies within this Master Plan are based. A summary of the survey and workshops is available within the Appendix.

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Chapter Two Agricultural Uses

Introduction

The amount of land which is vacant or used for agriculture has played a significant role in the development of the character of the Township. The large, open areas create a feeling of spaciousness and provide a tranquil surrounding. Agriculture is one of the major reasons that many of the current residents moved to the Township and continues to be a factor in attracting new residents.

Agriculture continues to be the dominant use of land within the Township and is widely appreciated by residents. Sixty-three percent (63%) of current residents within the Township who responded to the Master Plan Update Community Survey indicated that they agree that it is extremely important to preserve agricultural lands within the township. In addition, sixty-two percent (62%) of respondents indicated that the Township should promote agricultural growth. Further, sixty-nine percent (69%) of respondents indicated that the Township should support and promote agricultural land conservation programs. While public support is strong to prevent the development of agricultural properties, Agricultural Stakeholder meetings indicated that some farmers recognize that they may want to convert their properties to other uses in the future. It must be recognized that farming can be as much of an industry as manufacturing. Farming provides jobs and a product for sale in the marketplace and creates a significant portion of income for Michigan residents. Acknowledging farming as an essential industry can have a profound effect on the programs developed for its preservation and continuation. The agricultural resources of Ottawa County and Robinson Township are particularly significant in Michigan.

As a result of the Agricultural Lands public workshop, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for agricultural uses in Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Preserve agricultural lands
- Protect agricultural lands from urban and suburban encroachment
- Use of prime and/or uniquely suited agricultural lands as farms should be encouraged
- Promote agricultural services and uses as a means of preserving agriculture
- **Protect and preserve the floodplain and wetlands in order to minimize property damage as well as to maintain environmental interests, including water retention and groundwater recharge areas, which have important aesthetic and scenic value**

- Preserve rural character
- Support agricultural operations
- Recognize the interest of some farmers to transition their land to other uses in the future

Recommendations

- Urban encroachment on agricultural lands should be prevented, especially on those prime and/or uniquely suited agricultural lands
- Farms of the Township are considered an asset and efforts should be made to protect them from unnecessary destruction
- Encourage crop production and livestock use to minimally impact existing natural resources
- Encourage proper soil management, to ensure soil conservation and to prevent erosion and sedimentation
- Encourage all farm building construction to be designed in a central or same location within an agricultural property to preserve the most farmland as possible and minimally impact existing open spaces
- Encourage the design of a “no-cut” zone along right-of-ways to protect the natural landscape, maintain open space and rural character, as well as preserve the natural drainage system to provide soil erosion and sedimentation control and reduce flooding
- Encourage groundwater preservation practices for new development that are in accordance with Ottawa County’s Groundwater Sustainability Initiative

Strategies

- Adopt or enhance appropriate ordinances to preserve natural features
- Investigate ordinance language to support wedding venues or similar ancillary uses of existing agricultural operations
- Reduce or investigate the minimum setback for all farm buildings, so as to protect the greatest amount of open space and or farmland as possible, while avoiding conflict with adjacent uses
- Encourage the preservation of any trees within the right-of-way and within 30 feet of the right of way, so as to protect the natural vegetation (any naturally deceased trees may be removed) and drainage system
- Strengthen ordinance language to prohibit private roads in the Agricultural Zoning District or on prime farmland
- Investigate a millage or alternative Township program for land acquisition to provide for the preservation of rural character and or open space in perpetuity
- ~~[TBD] Create a development boundary that protects prime and unique farmland soil by generally restricting residential neighborhood development, commercial development, and industrial development within that area~~
- Limit development within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

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- Limit development within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Chapter Four

Lowland Resource Conservation

Introduction

Waterways, wetlands, and forests are important natural resources within the Township. These ecosystems are vulnerable to impact from development and require significant protection. Many of these areas are protected by State and Federal statute and are not conducive to development. The most well-known waterway in Robinson Township is the Grand River, which flows from east to west across the entire width of the Township eventually discharging to Lake Michigan at Grand Haven. Respondents to the Master Plan Update Community Survey overwhelmingly felt that the Grand River and its bayous are important, with ninety-three percent (93%) indicating they are desirable, up from eighty-three percent (83%) in the 1998 community survey. In addition, almost ninety percent (90%) of respondents believe the Township should take an active role in preserving natural waterways.

The Grand River drainage basin includes tributaries, regulated wetlands, and flood plains, all of which are home to many varieties of flora and fauna. Stearns Creek flows into Stearns Bayou, which is located at the northwest part of the Township. Other tributaries include Little Robinson Creek, Bear Creek, **Bass Creek**, and Bass River. The drainage system includes many other drains under the control of the Ottawa County Water Resources Drain Commissioner. Surface water in the extreme southern extent of the Township includes drains that discharge to the Pigeon River Watershed including Walters Drain, South Beeline Drain, Tubbs Creek and Fellows Drain.

The majority of wetlands within the Township are contiguous to the Grand River, its' tributaries, and County drains. There are, however, several scattered areas of wooded wetlands, wet meadows, submergent and emergent wetlands throughout the Township. Along with wetlands, forests play a significant role in the environment by providing a habitat for wildlife, stabilizing soil, preventing erosion, absorbing storm water, reducing carbon footprint, and providing a visual screen. When asked about the protection of wetlands and woodlands within the Township, almost eighty-two percent (82%) of respondents to the Master Plan Update Community Survey believe the Township should take an active role in preserving wetlands, and eighty-five percent (85%) believe the Township should take an active role in preserving forests.

Proper regulation of these areas will serve to maintain and improve groundwater and surface water quality; preserve wildlife habitat; protect natural watersheds; protect water-based recreational resources of the Township; minimize flood damage to land, buildings and structures; and protect the health, safety and welfare of the residents of the Township.

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for the protection of the environment within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Protect wetlands from development
- Preserve and protect the natural resources of the area that enhance the rural character of the Township
- Protect and preserve floodplains and wetlands to minimize property damage as well as to maintain environmental interests, including water retention and groundwater recharge areas, which have important ecological and aesthetic scenic value
- Property use in areas of frequent flooding should be limited to agriculture, recreation, and other open spaces, or permitted uses that would not be subject to flood damage
- As the Grand River is an area wide resource that can seriously affect downstream and upstream conditions, protection of the use of this resource to prevent negative effects downstream should be encouraged
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative

Recommendations

- Protect wetlands from development including excavation and/or fill consistent with State and Federal regulations
- Wooded areas of the Township are considered an asset and efforts should be made to protect them from unnecessary destruction
- Building construction in the floodplain should be discouraged to avoid damage and health hazards created by flood conditions
- Flood Plains of the Grand River and Pigeon River watersheds and their tributaries should be protected to eliminate obstructions to flow and navigability, and should not be developed except for marine purposes consistent with State and Federal regulations
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Strategies

- Adopt or enhance policies and regulations in the floodplain area should be consistent with State of Michigan and Federal guidelines
- Conduct a hydrogeological study, if existing evidence reveals water quality and or quantity concerns
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

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Introduction

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The majority of wetlands within the Township are contiguous to the Grand River, its' tributaries, and County drains. There are, however, several scattered areas of wooded wetlands, wet meadows, submergent and emergent wetlands throughout the Township. Along with wetlands, forests play a significant role in the environment by providing a habitat for wildlife, stabilizing soil, preventing erosion, absorbing storm water, reducing carbon footprint, and providing a visual screen. When asked about the protection of wetlands and woodlands within the Township, almost eighty-two percent (82%) of respondents to the Master Plan Update Community Survey believe the Township should take an active role in preserving wetlands, and eighty-five percent (85%) believe the Township should take an active role in preserving forests.

Proper regulation of these areas will serve to maintain and improve groundwater and surface water quality; preserve wildlife habitat; protect natural watersheds; protect water-based recreational resources of the Township; minimize flood damage to land, buildings and structures; and protect the health, safety and welfare of the residents of the Township.

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for the protection of the environment within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Protect wetlands from development
- Preserve and protect the natural resources of the area that enhance the rural character of the Township
- Protect and preserve floodplains and wetlands to minimize property damage as well as to maintain environmental interests, including water retention and groundwater recharge areas, which have important ecological and aesthetic scenic value
- Property use in areas of frequent flooding should be limited to agriculture, recreation, and other open spaces, or permitted uses that would not be subject to flood damage
- As the Grand River is an area wide resource that can seriously affect downstream and upstream conditions, protection of the use of this resource to prevent negative effects downstream should be encouraged
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative

Recommendations

- Protect wetlands from development including excavation and/or fill consistent with State and Federal regulations
- Wooded areas of the Township are considered an asset and efforts should be made to protect them from unnecessary destruction
- Building construction in the floodplain should be discouraged to avoid damage and health hazards created by flood conditions
- Flood Plains of the Grand River and Pigeon River watersheds and their tributaries should be protected to eliminate obstructions to flow and navigability, and should not be developed except for marine purposes consistent with State and Federal regulations
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Strategies

- Adopt or enhance policies and regulations in the floodplain area should be consistent with State of Michigan and Federal guidelines
- Conduct a hydrogeological study, if existing evidence reveals water quality and or quantity concerns
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Chapter Five

Commercial Uses & M-231 Commercial Uses

Introduction

While the majority of commercial land use area within the Township is located along Lake Michigan Drive, limited commercial area exists within the northern area of the Township. These areas are recognized as neighborhood commercial or general business areas, including marinas, and generally are established for the purpose of allowing small convenience commercial businesses designed for the use of neighborhood residents. In that regard, respondents to the Master Plan Update Community Survey are almost equally split on whether additional neighborhood commercial development should occur, with approximately thirty-four percent (34%) supporting some additional development, approximately thirty-three percent (33%) supporting less development, and approximately twenty-eight percent (28%) indicating no change.

Although some areas of neighborhood commercial may be added in future revisions of the Master Plan as population and development increases the demand for such services, future commercial land use in Robinson Township is primarily intended to be limited to the Lake Michigan Drive and 120th Avenue area as well as the Lincoln Street and M-231 highway area.

M-231 Highway

Construction of the M-231 highway through the heart of Robinson Township has given rise to concerns over development pressure and appropriate land use at access points along the route. Given this, the related language herein addresses planning, growth, and development issues for land in the vicinity of the M-231 intersections with Lake Michigan Drive and Lincoln Street in an effort to balance preservation of prized community assets with economic growth opportunities, as well as consolidate and focus future development to planned and prioritized target areas. These provisions were first adopted by the Township in the year 2015 for the same purpose.

As a result of the Master Plan Update Community Survey, the Township found that approximately thirty-five percent (35%) of respondents desire some additional commercial development on Lake Michigan Drive, whereas approximately twenty-six percent (26%) desire less development. Approximately twenty-nine percent (29%) support no change in development.

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for general commercial uses and commercial uses along the M-231 highway area within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

General Commercial Uses

Goals

- Preserve and protect the natural resources of the area that provide rural character
- Maintain the rural character of the community
- Commercial facilities should provide citizens with accessibility and diversification
- Commercial uses should be well integrated with surrounding development through appropriate landscaping, greenbelts, adequate access, parking, and pedestrian pathways
- Outdoor lighting shall be unobtrusive
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative

Recommendations

- Commercial uses shall provide sufficient off street parking and loading facilities, and minimize traffic congestion
- Commercial uses shall provide sufficient pedestrian access
- Commercial "strip" development should be discouraged to minimize traffic and land use problems
- Interconnect service drives to improve traffic distribution and to promote proper access management
- The negative effects of glare on neighboring properties and abutting streets shall be controlled by regulating the height, location, and intensity of lights and dimming lighting levels after business hours
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Strategies

- Strengthen requirements for site design, which address but are not necessarily limited to, building materials, location and design of refuse storage areas, location and screening of service and delivery areas, parking lot design, lighting, landscaping, pedestrian safety, and site access
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

M-231 Commercial Uses

The basis for the following Goals and Recommendations is available within the Appendix.

Goals

- Establish a pattern of land use which will promote the highest degree of health, safety, and general welfare for all segments of the community
- Preserve and protect the natural resources of the area, while maintaining the necessary balance between the social and economic needs of the Township
- Preserve the rural landscape and protect the existing rural community character and atmosphere
- Prioritize agricultural, environmental, and natural resource protection
- Ensure a safe multi-user transportation network, through sidewalks, pathways, crossings, and access management
- Capitalize on the opportunities for future parks, recreational facilities, and trails
- Ensure outdoor lighting is unobtrusive and “Dark Sky” compliant
- Promote harmonious and organized development consistent with adjacent land uses and ensure high quality site and building design that contributes to the character of the community
- Restrict consideration of sewer infrastructure to planned primary development areas
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative

Primary Growth Area Recommendations

- Highway Commercial properties should provide for:
 - Buildings that are designed in clusters rather than in-line
 - Buildings that do not exceed two stories in height
 - Building design that achieves rural character
 - Multi-tenant buildings designed to appear to be divided into smaller elements by indentations, different building materials, architectural treatments, etcetera
 - Street corner buildings shall:
 - Be located as close to the right-of-way as practicable
 - Provide a civic space adjacent to the corner
 - Contain distinctive architectural features that promote pedestrians
 - Landscaping that softens the visual impact of buildings and creates a defined sense of arrival along the street edge
 - ~~Limit Few~~ driveways ~~through with the~~ interconnection of service drives to improve traffic distribution and to promote proper access management (Concept from Map 2)
 - Shared parking facilities located in the side or rear yards
 - Safe pedestrian circulation internally and along right-of-ways
 - Decorative lighting that is “Dark Sky” compliant
 - Loading docks and overhead doors in non-street facing facades

- Community Commercial properties should provide for:
 - Multi-tenant buildings designed to appear to be divided into smaller elements with building articulation, architectural elements, change of color and materials, etcetera
 - Buildings that do not exceed two stories in height
 - Building fronts facing the right-of-way
 - No more than two wall materials (not including foundation or trim)
 - Separation between materials as primarily horizontal
 - Heavier façade materials below lighter façade materials
 - Stone material, if any, as the secondary or accent material
 - Landscape parking areas
 - Exterior site buffering to soften visual impacts
 - Safe pedestrian circulation internally and along right-of-ways
 - Public spaces and open spaces
 - External lighting that is “Dark Sky” compliant
 - Internal driveway connection to shared drives or interior roadways
 - Loading docks and overhead doors in non-street facing facades
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County’s Groundwater Sustainability Initiative

Primary Growth Area Strategies

- Maintain or strengthen design standards provided in Chapter 18 of the Zoning Ordinance
- Limit development within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Secondary Growth Area Recommendations

- Properties should provide for:
 - Safe pedestrian and bicycle circulation internally and along right-of-ways
 - Storefronts that are oriented to address and enhance public areas and pedestrian pathways
 - Shared parking and interconnect service drives to improve traffic distribution and to promote proper access management
 - Building facades parallel to the street with major roof ridges either parallel or perpendicular to the street to be consistent with established patterns, and street level porches to emphasize entrances and create a public realm
 - Barn like structures that do not exceed one to one and a half stories
 - Civic buildings and public gathering places that reinforce community identity
 - Buildings placed between Lincoln Street and associated parking areas, with parking in the rear or sides of buildings
 - Reduced or zero front yard setback to bring uses closer to the street, to create neighborhood scale
 - External lighting that is “Dark Sky” compliant

- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Secondary Growth Area Strategies

- Maintain or strengthen design standards provided in Chapter 17 of the Zoning Ordinance
 - Consider standards to promote pedestrian safety
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Chapter Five

Commercial Uses & M-231 Commercial Uses

Introduction

While the majority of commercial land use area within the Township is located along Lake Michigan Drive, limited commercial area exists within the northern area of the Township. These areas are recognized as neighborhood commercial or general business areas, including marinas, and generally are established for the purpose of allowing small convenience commercial businesses designed for the use of neighborhood residents. In that regard, respondents to the Master Plan Update Community Survey are almost equally split on whether additional neighborhood commercial development should occur, with approximately thirty-four percent (34%) supporting some additional development, approximately thirty-three percent (33%) supporting less development, and approximately twenty-eight percent (28%) indicating no change.

Although some areas of neighborhood commercial may be added in future revisions of the Master Plan as population and development increases the demand for such services, future commercial land use in Robinson Township is primarily intended to be limited to the Lake Michigan Drive and 120th Avenue area as well as the Lincoln Street and M-231 highway area.

M-231 Highway

Construction of the M-231 highway through the heart of Robinson Township has given rise to concerns over development pressure and appropriate land use at access points along the route. Given this, the related language herein addresses planning, growth, and development issues for land in the vicinity of the M-231 intersections with Lake Michigan Drive and Lincoln Street in an effort to balance preservation of prized community assets with economic growth opportunities, as well as consolidate and focus future development to planned and prioritized target areas. These provisions were first adopted by the Township in the year 2015 for the same purpose.

As a result of the Master Plan Update Community Survey, the Township found that approximately thirty-five percent (35%) of respondents desire some additional commercial development on Lake Michigan Drive, whereas approximately twenty-six percent (26%) desire less development. Approximately twenty-nine percent (29%) support no change in development.

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for general commercial uses and commercial uses along the M-231 highway area within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

General Commercial Uses

Goals

- Preserve and protect the natural resources of the area that provide rural character
- Maintain the rural character of the community
- Commercial facilities should provide citizens with accessibility and diversification
- Commercial uses should be well integrated with surrounding development through appropriate landscaping, greenbelts, adequate access, parking, and pedestrian pathways
- Outdoor lighting shall be unobtrusive
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative

Recommendations

- Commercial uses shall provide sufficient off street parking and loading facilities, and minimize traffic congestion
- Commercial uses shall provide sufficient pedestrian access
- Commercial "strip" development should be discouraged to minimize traffic and land use problems
- Interconnect service drives to improve traffic distribution and to promote proper access management
- The negative effects of glare on neighboring properties and abutting streets shall be controlled by regulating the height, location, and intensity of lights and dimming lighting levels after business hours
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Strategies

- Strengthen requirements for site design, which address but are not necessarily limited to, building materials, location and design of refuse storage areas, location and screening of service and delivery areas, parking lot design, lighting, landscaping, pedestrian safety, and site access
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

M-231 Commercial Uses

The basis for the following Goals and Recommendations is available within the Appendix.

Goals

- Establish a pattern of land use which will promote the highest degree of health, safety, and general welfare for all segments of the community
- Preserve and protect the natural resources of the area, while maintaining the necessary balance between the social and economic needs of the Township
- Preserve the rural landscape and protect the existing rural community character and atmosphere
- Prioritize agricultural, environmental, and natural resource protection
- Ensure a safe multi-user transportation network, through sidewalks, pathways, crossings, and access management
- Capitalize on the opportunities for future parks, recreational facilities, and trails
- Ensure outdoor lighting is unobtrusive and “Dark Sky” compliant
- Promote harmonious and organized development consistent with adjacent land uses and ensure high quality site and building design that contributes to the character of the community
- Restrict consideration of sewer infrastructure to planned primary development areas
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative

Primary Growth Area Recommendations

- Highway Commercial properties should provide for:
 - Buildings that are designed in clusters rather than in-line
 - Buildings that do not exceed two stories in height
 - Building design that achieves rural character
 - Multi-tenant buildings designed to appear to be divided into smaller elements by indentations, different building materials, architectural treatments, etcetera
 - Street corner buildings shall:
 - Be located as close to the right-of-way as practicable
 - Provide a civic space adjacent to the corner
 - Contain distinctive architectural features that promote pedestrians
 - Landscaping that softens the visual impact of buildings and creates a defined sense of arrival along the street edge
 - Limit driveways through interconnection of service drives to improve traffic distribution and to promote proper access management (Concept from Map 2)
 - Shared parking facilities located in the side or rear yards
 - Safe pedestrian circulation internally and along right-of-ways
 - Decorative lighting that is “Dark Sky” compliant
 - Loading docks and overhead doors in non-street facing facades

- Community Commercial properties should provide for:
 - Multi-tenant buildings designed to appear to be divided into smaller elements with building articulation, architectural elements, change of color and materials, etcetera
 - Buildings that do not exceed two stories in height
 - Building fronts facing the right-of-way
 - No more than two wall materials (not including foundation or trim)
 - Separation between materials as primarily horizontal
 - Heavier façade materials below lighter façade materials
 - Stone material, if any, as the secondary or accent material
 - Landscape parking areas
 - Exterior site buffering to soften visual impacts
 - Safe pedestrian circulation internally and along right-of-ways
 - Public spaces and open spaces
 - External lighting that is “Dark Sky” compliant
 - Internal driveway connection to shared drives or interior roadways
 - Loading docks and overhead doors in non-street facing facades
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County’s Groundwater Sustainability Initiative

Primary Growth Area Strategies

- Maintain or strengthen design standards provided in Chapter 18 of the Zoning Ordinance
- Limit development within the Aquifer Recharge Area identified by Ottawa County’s Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Secondary Growth Area Recommendations

- Properties should provide for:
 - Safe pedestrian and bicycle circulation internally and along right-of-ways
 - Storefronts that are oriented to address and enhance public areas and pedestrian pathways
 - Shared parking and interconnect service drives to improve traffic distribution and to promote proper access management
 - Building facades parallel to the street with major roof ridges either parallel or perpendicular to the street to be consistent with established patterns, and street level porches to emphasize entrances and create a public realm
 - Barn like structures that do not exceed one to one and a half stories
 - Civic buildings and public gathering places that reinforce community identity
 - Buildings placed between Lincoln Street and associated parking areas, with parking in the rear or sides of buildings
 - Reduced or zero front yard setback to bring uses closer to the street, to create neighborhood scale
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Secondary Growth Area Strategies

- Maintain or strengthen design standards provided in Chapter 17 of the Zoning Ordinance
 - Consider standards to promote pedestrian safety
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area

Chapter Seven

Recreational and Public Facilities

Introduction

Robinson Township is home to a State Recreation Area as well as a 45 acre Township Park. Publicly owned recreation areas comprise about 1,153 acres of the Township, which include the Connor Bayou County Park, the Stearns Creek County Park, the Johnson Street County Forest Park, the Robinson County Forest Park, the Bass River State Recreation Area, the Riverside County Park, the Township Park, the M-231 parking area at North Cedar Drive, the Michigan Department of Natural Resources boat launch, the Grand Haven State Game Area, playgrounds at Robinson Elementary, and privately owned facilities such as marinas and a golf course.

In addition, the Ottawa County 2021 Parks, Recreation and Open Space Plan presents a conceptual plan for the Grand River Greenway. This concept plan presents a vision that links greenway lands with hard-surface multi-use trails. The greenway system goal is to provide a full greenway connection between Ottawa and Kent Counties.

The Robinson Township Hall and Fire Station are centrally located at 12010 120th Avenue. Police protection is provided by the Ottawa County Sheriff's Department. The Township has two school systems within its boundaries; the Grand Haven Area Public School District and the Zeeland Public School District. Robinson Elementary School is located within the Township near the Township Park.

When respondents to the Master Plan Update Community Survey were asked if they would like to see recreational lands change over the next ten years, approximately fifty percent (50%) indicated additional recreational land is desired and approximately forty-four percent (44%) indicated that the current recreational land is adequate. Related, when respondents were asked if they were willing to pay for the acquisition of lands for recreational purpose through a property tax millage, approximately sixty-three percent (63%) indicated support whereas approximately twenty-eight percent (28%) did not provide support. Further, when asked the same question regarding multi-use pathways, approximately sixty-one percent (61%) supported a millage whereas approximately thirty-one percent (31%) were opposed. Lastly, over eighty-two percent (82%) of respondents indicated that access to recreational opportunities in the township is excellent or good.

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for recreation and public facilities within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Park and recreational sites should be readily available to the people of Robinson Township, and be aligned with established regional need
- Consideration to protect those lands exhibiting the greatest need for environmental preservation and management should be paramount
- Ensure that public facilities and services can be sufficiently upgraded and expanded before new demands are placed upon those facilities and services
- Create and preserve public access to and viewsheds of the Grand River
- Protect water quality of the Grand River
- Preserve and protect the natural resources of the area that provide rural character
- Maintain the rural character of the community
- Provide protection of groundwater sources, particularly within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative

Recommendations

- Consideration should be given to recreational opportunities for all age groups during all seasons of the year
- Lighting shall be "Dark Sky" compliant. The negative effects of glare on neighboring properties and abutting streets shall be controlled by regulating the height, location, and intensity of lights and dimming lighting levels after business or open hours.
- Maximize the utilization of public buildings and grounds for multi-functional services
- Encourage groundwater preservation practices for new developments in accordance with Ottawa County's Groundwater Sustainability Initiative

Strategies

- Strengthen requirements for site design, which address but are not necessarily limited to, building materials, location and design of refuse storage areas, parking lot design, lighting, landscaping, pedestrian safety, and site access
- Limit development within the Aquifer Recharge Area identified by Ottawa County's Groundwater Sustainability Initiative, which would negatively impact the Recharge Area
- Maintain a Township Recreation Plan to be eligible for state and federal recreation funding programs
- Encourage citizen participation to determine needed and desired improvements and expansions to public facilities and recreation
- Strengthen ordinance provisions to reduce flooding, control runoff, and improve water quality of the Grand River and its tributaries
- Strengthen ordinance provisions to require developers to provide road easements for and construction of pedestrian/bicycle paths

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Recommendations

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- Strengthen ordinance provisions to require developers to provide road easements for and construction of pedestrian/bicycle paths

Chapter Nine Transportation

Introduction

Roadway function, efficiency and safety in Robinson Township can be furthered by defining a roadway classification system and planning and designing these facilities for their specific purpose. A functional system or hierarchy of roads provides for movement of traffic as well as access to specific sites. This hierarchy will range from principal arterials such as Lake Michigan Drive and the M-231 Highway, which primarily serves cross-county movement, to local subdivision streets that provide access to individual homes. This system defines the roles of each street, in terms of operational requirements; which is translated into planning, management and physical design features.

Principal Arterial

The Lake Michigan Drive corridor and M-231 Highway are major roadways through the heart of Ottawa County and serve a vital function toward connecting Robinson Township with developed areas in Grand Haven Charter Township, Allendale Charter Township and further east to the City of Grand Rapids and Kent County in general.

Collectors

The collectors serve to funnel traffic from local subdivision streets in residential neighborhoods to the arterials. Collectors also afford access to abutting properties. Many individual subdivisions contain one or more collector streets that carry traffic from the local streets and connect with adjacent neighborhoods.

*Local and Private **Roads Streets***

These interior streets provide access to abutting property and homes. These roadways are generally short and discontinuous and only provide connection to one or two collector streets.

Based upon the current view of the Township, the following is believed to be an adequate description of existing roads and highways:

TYPE	FUNCTION	SPEED	FEATURES
State Highway* (Principal Arterial)	Thoroughfare through the Township.	55 to 65 mph.	Higher traffic volumes with generally wider right of ways.

Arterial**	Connects areas of the Township or a thoroughfare through the Township	55 mph.	Higher traffic volumes, sometimes wider right of ways.
Secondary	Provide connecting link between arterials and represent the location of most residences.	55 mph.	Moderate traffic, almost exclusively 66 feet right of way.
Private Street Road (serving more than 4 dwellings), typically paved.	Provide access to individual properties.	Unregulated by the County	Should be designed to discourage through traffic, 66 feet ROW for possible public dedication at a later date.
Private Street Road (serving 4 or fewer dwellings)	Provide access to a limited number of individual properties.	Unregulated by the County, however, length and condition limit speed.	Should be designed to discourage through traffic, 66 feet ROW for possible public dedication at a later date.

*State Highway

- M-45 (Lake Michigan Drive) from 144th Avenue to 96th Avenue
- M-231 from the Grand River to Lake Michigan Drive

**Arterial Streets

- 144th Avenue from M-45 to Green Street
- 128th Avenue from M-45 to Green Street
- 120th Avenue-- entire length of Township
- 104th Avenue -- M-45 to North Cedar Street
- 96th Avenue -- Fillmore Street to M-45
- Lincoln, 112th Avenue, Osborn, Bass Drive -- entire length
- Mercury Drive, Green Street, North Cedar Street—entire length
- Fillmore Street-- entire length

Overall, eighty-six percent (86%) of respondents to the Master Plan Update Community Survey indicated that the ease of travel between destinations within the Township was “excellent” or “good.” Approximately seventy percent (70%) of respondents indicated that planning for future road congestion was “important” or “very important.”

Pedestrians

Coupled with vehicle transportation, providing for pedestrian friendly means of travel are important to achieve complete streets within the Township.

Approximately seventy percent (70%) of respondents to the Master Plan Update Community Survey indicated that multi-use pathways for pedestrians, bicycles, and or equestrians are appropriate when adjacent to agriculture within the Township. Slightly over fifty percent (50%) of respondents indicated that adding bike lanes and paved shoulders along roads were “important” or “very important,” coupled with approximately twenty-four percent (24%) indicating that those were “somewhat important.”

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for transportation within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Access points for traffic on Lake Michigan Drive should not be restricted by excessive driveway aprons
- An emphasis on interconnected drives and streets should be promoted so that internal trips can be made without compelling drivers to enter and exit the main road multiple times
- A system of integrated shared use paths should be promoted for all new developments to provide safe walking routes to surrounding uses

Recommendations

- Interconnect service drives to improve traffic distribution and to promote access management
- Minimize traffic disruptions on arterials, while keeping through traffic off of the local residential streets
- Promote a multimodal transportation system, encompassing bicycles, pedestrian, and automobile traffic

Strategies

- Require the layout of new residential developments to be extensions of existing neighborhoods, where possible. This should apply to roadway extensions and pedestrian pathways, to ensure interconnected neighborhoods.

- Consider adopting access management regulations, shared driveway regulations, and pedestrian pathway requirements within the Zoning Ordinance for all commercial and industrial uses

Complete Streets Plan

In 2010, the Michigan Planning Enabling Act was amended to require that Master Plans account for “all legal users” of the transportation system within the municipality. The amended Act, in part, states that the Master Plan must include, “among other things, promotion of or adequate provision for 1 or more of the following: (i) A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians, and other legal users.” MCL 125.3807(2)(d).

This Chapter of the Robinson Township Master Plan, Chapter Nine – Transportation, as well as other provisions throughout the plan regarding pathways, roadway improvements, and lessening roadway congestion, identify key means to implement complete streets. As a result, the Township is compliant with this amendment.

Chapter Nine Transportation

Introduction

Roadway function, efficiency and safety in Robinson Township can be furthered by defining a roadway classification system and planning and designing these facilities for their specific purpose. A functional system or hierarchy of roads provides for movement of traffic as well as access to specific sites. This hierarchy will range from principal arterials such as Lake Michigan Drive and the M-231 Highway, which primarily serves cross-county movement, to local subdivision streets that provide access to individual homes. This system defines the roles of each street, in terms of operational requirements; which is translated into planning, management and physical design features.

Principal Arterial

The Lake Michigan Drive corridor and M-231 Highway are major roadways through the heart of Ottawa County and serve a vital function toward connecting Robinson Township with developed areas in Grand Haven Charter Township, Allendale Charter Township and further east to the City of Grand Rapids and Kent County in general.

Collectors

The collectors serve to funnel traffic from local subdivision streets in residential neighborhoods to the arterials. Collectors also afford access to abutting properties. Many individual subdivisions contain one or more collector streets that carry traffic from the local streets and connect with adjacent neighborhoods.

Local and Private Roads

These interior streets provide access to abutting property and homes. These roadways are generally short and discontinuous and only provide connection to one or two collector streets.

Based upon the current view of the Township, the following is believed to be an adequate description of existing roads and highways:

TYPE	FUNCTION	SPEED	FEATURES
State Highway* (Principal Arterial)	Thoroughfare through the Township.	55 to 65 mph.	Higher traffic volumes with generally wider right of ways.

Arterial**	Connects areas of the Township or a thoroughfare through the Township	55 mph.	Higher traffic volumes, sometimes wider right of ways.
Secondary	Provide connecting link between arterials and represent the location of most residences.	55 mph.	Moderate traffic, almost exclusively 66 feet right of way.
Private Road (serving more than 4 dwellings) paved.	Provide access to individual properties.	Unregulated by the County	Should be designed to discourage through traffic, 66 feet ROW for possible public dedication at a later date.
Private Road (serving 4 or fewer dwellings)	Provide access to a limited number of individual properties.	Unregulated by the County, however, length and condition limit speed.	Should be designed to discourage through traffic, 66 feet ROW for possible public dedication at a later date.

*State Highway

- M-45 (Lake Michigan Drive) from 144th Avenue to 96th Avenue
- M-231 from the Grand River to Lake Michigan Drive

**Arterial Streets

- 144th Avenue from M-45 to Green Street
- 128th Avenue from M-45 to Green Street
- 120th Avenue-- entire length of Township
- 104th Avenue -- M-45 to North Cedar Street
- 96th Avenue -- Fillmore Street to M-45
- Lincoln, 112th Avenue, Osborn, Bass Drive -- entire length
- Mercury Drive, Green Street, North Cedar Street—entire length
- Fillmore Street-- entire length

Overall, eighty-six percent (86%) of respondents to the Master Plan Update Community Survey indicated that the ease of travel between destinations within the Township was “excellent” or “good.” Approximately seventy percent (70%) of respondents indicated that planning for future road congestion was “important” or “very important.”

Pedestrians

Coupled with vehicle transportation, providing for pedestrian friendly means of travel are important to achieve complete streets within the Township.

Approximately seventy percent (70%) of respondents to the Master Plan Update Community Survey indicated that multi-use pathways for pedestrians, bicycles, and or equestrians are appropriate when adjacent to agriculture within the Township. Slightly over fifty percent (50%) of respondents indicated that adding bike lanes and paved shoulders along roads were “important” or “very important,” coupled with approximately twenty-four percent (24%) indicating that those were “somewhat important.”

As a result of public workshops, the Master Plan Update Community Survey, and various planning meetings we have concluded that the following goals are paramount for transportation within Robinson Township. In addition, through the use of modern planning principles, where applicable, recommendations regarding these goals as well as strategies to achieve success are provided below.

Goals, Recommendations, and Strategies

Goals

- Access points for traffic on Lake Michigan Drive should not be restricted by excessive driveway aprons
- An emphasis on interconnected drives and streets should be promoted so that internal trips can be made without compelling drivers to enter and exit the main road multiple times
- A system of integrated shared use paths should be promoted for all new developments to provide safe walking routes to surrounding uses

Recommendations

- Interconnect service drives to improve traffic distribution and to promote access management
- Minimize traffic disruptions on arterials, while keeping through traffic off of the local residential streets
- Promote a multimodal transportation system, encompassing bicycles, pedestrian, and automobile traffic

Strategies

- Require the layout of new residential developments to be extensions of existing neighborhoods, where possible. This should apply to roadway extensions and pedestrian pathways, to ensure interconnected neighborhoods.

- Consider adopting access management regulations, shared driveway regulations, and pedestrian pathway requirements within the Zoning Ordinance for all commercial and industrial uses

Complete Streets Plan

In 2010, the Michigan Planning Enabling Act was amended to require that Master Plans account for “all legal users” of the transportation system within the municipality. The amended Act, in part, states that the Master Plan must include, “among other things, promotion of or adequate provision for 1 or more of the following: (i) A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians, and other legal users.” MCL 125.3807(2)(d).

This Chapter of the Robinson Township Master Plan, Chapter Nine – Transportation, as well as other provisions throughout the plan regarding pathways, roadway improvements, and lessening roadway congestion, identify key means to implement complete streets. As a result, the Township is compliant with this amendment.

Chapter Ten Implementation

Introduction

In order for the Master Plan to serve as an effective guide to the continued development and preservation of Robinson Township, it must be properly implemented. Primary responsibility for implementing the Plan rests with the Robinson Township Planning Commission, the Board of Trustees, and Township staff. Implementation is accomplished through a number of methods including adoption of ordinances, policies, and administrative procedures, as well as site plan review. While the Master Plan itself has no legal authority to regulate development, it does influence land use based on the goals and recommendations identified within the Master Plan related to a proposed land use.

Zoning and Land Use Regulations

Zoning represents a legal means for the Township to regulate private property to achieve orderly land use relationships and is the tool most commonly used to implement the Master Plan. The zoning process consists of an official Zoning Map and accompanying Zoning Ordinance text. The official Zoning Map divides the community into different districts within which certain uses are permitted. The Zoning Ordinance text establishes the permitted uses, regulations to control density, height, bulk, setbacks, lot sizes and accessory uses, among other physical and linear attributes. The Zoning Ordinance also sets forth procedures for special approval provisions and regulates accessory structures such as pole barns and signage. These measures permit the Township to control the quality as well as the type of development. Numerous strategies within this Plan are provided for future implementation into the Zoning Ordinance, as well other policy documents.

The Planning Commission and Township Board should periodically review and make any necessary revisions to the zoning regulations to ensure that the strategies of the Master Plan are instituted. Further, the Zoning Ordinance requires systematic and frequent updates to address needs resulting from land use trends, case law, and state statutes.

Relationship of Master Plan Classifications to Zoning Districts (Zoning Plan)

Complementing the text of the Master Plan is its map, which identifies land use classifications by which the Township organizes and intends future improvements and uses. These classification terms are intentionally general in nature so as to not necessarily be specific to one use or type of uses permitted by the Zoning Ordinance and its Map. In other words, while the land use classifications are related to the Zoning Districts identified on the Zoning Ordinance Map, specific future uses are determined by numerous natural and man-made features of the landscape such as public utilities, topography, soils, road improvements, surrounding uses, existing densities, and etcetera, as well as other planning considerations such as compatibility, public safety, and access. Consequently, while the land use classifications of the Master Plan Map are designed to serve as

a guide for future uses, they are not considered to be a mandate for immediate improvements, public, private, or otherwise.

Ultimately, while the Master Plan Map identifies areas for future uses, the feasibility of a proposed use is determined by the aforementioned, and the Zoning Ordinance with its regulations regarding height, area, bulk, location, etcetera for each of its Zoning Districts.

Nonetheless, the Michigan Planning Enabling Act requires that a Master Plan include a “Zoning Plan” with an “explanation of how the land use categories on the future land use map relate to the districts on the zoning map. The table below summarizes the Master Plan classifications and how they relate to reach of the existing zoning districts.

Master Plan Map Classification Terms	Zoning Ordinance Map Districts
Agricultural (AG)	Agricultural (A-1) & Agricultural Service (A-2)
Low Density Residential (LDR)	Rural Residential (RR)
Medium Density Residential (MDR)	Residential One-Family (R-1)
High Density Residential (HDR)	Residential Multiple-Family (R-2)
Flood Plain (E-1)	Lowland Resource Conservation Overlay (E-1)
Commercial (C)	Neighborhood Commercial (B-1) & General Business (B-2)
Industrial (I)	Industrial (I-1) & (I-2)
M-231 Primary Growth Area	Lake Michigan Drive Commercial Overlay (LMDCOD)
M-231 Secondary Growth Area	Lincoln Street Overlay (LSOD)
Mobile Home (MHP)	Mobile Home Park (R-3)

Mining District

Given that mining rights within the State of Michigan can potentially allow mineral extraction anywhere within the Township, the Mining District within the Robinson Township Zoning Ordinance is an interim district that permits and regulates mining activities. When the mineral extraction is complete, the property requires rezoning to a zoning district that is consistent with this Master Plan, that is compatible with the surrounding zoning districts and uses, and supports the capability of the subject property to accommodate the available uses of the zoning district.

Planned Unit Development District

The Michigan Zoning Enabling Act allows a municipality to adopt provisions to provide for Planned Unit Developments within their Zoning Ordinance. Planned Unit Developments are designed to authorize and control the development of various compatible uses permitted by the Zoning Ordinance through a flexibility in the use, area, height, bulk, and placement regulations where the underlying district cannot achieve the same type of desirable

development through its regulations. Robinson Township permits recreational, clustered residential, and non-clustered residential Planned Unit Developments. While not an interim zoning district like the Mining District, the Planned Unit Development District is not identified within this Master Plan because its location in the Township occurs on a case-by-case basis as a result of existing and changing conditions.

Relationship of Master Plan Map Classification Terms to Master Plan Chapters

Several Chapters of this Master Plan identify the goals, recommendations, and strategies regarding future land uses within the Township. While the goals, recommendations, and strategies will likely always evolve, the intended uses related to the chapter titles will remain the same. Those chapter titles can generally be related to the Master Plan Map terms as provided in the table below.

Master Plan Map Classification Terms	Master Plan Chapters
Agricultural (AG)	Agricultural Uses
Low Density Residential (LDR)	Residential Uses
Medium Density Residential (MDR)	Residential Uses
High Density Residential (HDR)	Residential Uses
Flood Plain (E-1)	Lowland Resource Conservation
Commercial (C)	Commercial Uses & M-231 Commercial Uses
Industrial (I)	Industrial Uses & M-231 Industrial Uses
M-231 Primary Growth Area	Commercial Uses & M-231 Commercial Uses / Industrial Uses & M-231 Industrial Uses
M-231 Secondary Growth Area	Commercial Uses & M-231 Commercial Uses

Chapter Ten Implementation

Introduction

In order for the Master Plan to serve as an effective guide to the continued development and preservation of Robinson Township, it must be properly implemented. Primary responsibility for implementing the Plan rests with the Robinson Township Planning Commission, the Board of Trustees, and Township staff. Implementation is accomplished through a number of methods including adoption of ordinances, policies, and administrative procedures, as well as site plan review. While the Master Plan itself has no legal authority to regulate development, it does influence land use based on the goals and recommendations identified within the Master Plan related to a proposed land use.

Zoning and Land Use Regulations

Zoning represents a legal means for the Township to regulate private property to achieve orderly land use relationships and is the tool most commonly used to implement the Master Plan. The zoning process consists of an official Zoning Map and accompanying Zoning Ordinance text. The official Zoning Map divides the community into different districts within which certain uses are permitted. The Zoning Ordinance text establishes the permitted uses, regulations to control density, height, bulk, setbacks, lot sizes and accessory uses, among other physical and linear attributes. The Zoning Ordinance also sets forth procedures for special approval provisions and regulates accessory structures such as pole barns and signage. These measures permit the Township to control the quality as well as the type of development. Numerous strategies within this Plan are provided for future implementation into the Zoning Ordinance, as well other policy documents.

The Planning Commission and Township Board should periodically review and make any necessary revisions to the zoning regulations to ensure that the strategies of the Master Plan are instituted. Further, the Zoning Ordinance requires systematic and frequent updates to address needs resulting from land use trends, case law, and state statutes.

Relationship of Master Plan Classifications to Zoning Districts (Zoning Plan)

Complementing the text of the Master Plan is its map, which identifies land use classifications by which the Township organizes and intends future improvements and uses. These classification terms are intentionally general in nature so as to not necessarily be specific to one use or type of uses permitted by the Zoning Ordinance and its Map. In other words, while the land use classifications are related to the Zoning Districts identified on the Zoning Ordinance Map, specific future uses are determined by numerous natural and man-made features of the landscape such as public utilities, topography, soils, road improvements, surrounding uses, existing densities, and etcetera, as well as other planning considerations such as compatibility, public safety, and access. Consequently, while the land use classifications of the Master Plan Map are designed to serve as

a guide for future uses, they are not considered to be a mandate for immediate improvements, public, private, or otherwise.

Ultimately, while the Master Plan Map identifies areas for future uses, the feasibility of a proposed use is determined by the aforementioned, and the Zoning Ordinance with its regulations regarding height, area, bulk, location, etcetera for each of its Zoning Districts.

Nonetheless, the Michigan Planning Enabling Act requires that a Master Plan include a “Zoning Plan” with an “explanation of how the land use categories on the future land use map relate to the districts on the zoning map. The table below summarizes the Master Plan classifications and how they relate to reach of the existing zoning districts.

Master Plan Map Classification Terms	Zoning Ordinance Map Districts
Agricultural (AG)	Agricultural (A-1) & Agricultural Service (A-2)
Low Density Residential (LDR)	Rural Residential (RR)
Medium Density Residential (MDR)	Residential One-Family (R-1)
High Density Residential (HDR)	Residential Multiple-Family (R-2)
Flood Plain (E-1)	Lowland Resource Conservation Overlay (E-1)
Commercial (C)	Neighborhood Commercial (B-1) & General Business (B-2)
Industrial (I)	Industrial (I-1) & (I-2)
M-231 Primary Growth Area	Lake Michigan Drive Commercial Overlay (LMDCOD)
M-231 Secondary Growth Area	Lincoln Street Overlay (LSOD)
Mobile Home (MHP)	Mobile Home Park (R-3)

Mining District

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M-231 Primary Growth Area	Commercial Uses & M-231 Commercial Uses / Industrial Uses & M-231 Industrial Uses
M-231 Secondary Growth Area	Commercial Uses & M-231 Commercial Uses

Appendix

Available within this appendix is the following data.

Appendix A – Community Mapping

Appendix B – M-231 Growth Areas

Appendix C – Population and Economic Data, Robinson Township

Appendix D – Robinson Township Master Plan Update Community Survey 2021: ~~Results~~

~~Appendix E –~~ & Robinson Township Master Plan Public Workshops: Results **Summary**

Appendix ~~E F~~ – Water Supply System Master Plan for Robinson Township

Appendix ~~F G~~ – Wastewater Master Plan

Appendix G – Aquifer Recharge in Robinson Township, Ottawa County – David P. Lusch

Appendix A Community Mapping

Following are the community maps as well as their established purpose, which are incorporated as part of the Master Plan. These maps are not intended to be limited to their purposes provided below but rather establish a minimum relationship to the Master Plan.

- **Future Land Use Master Plan Map** – creates future land use classifications and delineates boundaries for certain uses of land.
- **Soil Limitations for Residential Development without Public Water Map** - illustrates soil limitations for septic systems to illustrate feasibility of supporting proposed development.
- ~~**Agricultural and Open Space Lands** – illustrates the existing agricultural and open space lands within the Township.~~
- **Parks & Recreation Areas Map** – illustrates existing parks and recreation areas available to the public within the Township.
- ~~**Water Supply System Master Plan** – illustrates the location of existing and future planned water supply infrastructure within the Township to illustrate feasibility of supporting proposed development.~~
- **Natural Gas Suppliers Map** – illustrates the location of natural gas utilities and suppliers within the Township to illustrate feasibility of supporting proposed development.
- **Marathon Pipeline Map** – illustrates the general location of the Marathon Pipeline within the Township.
- **Electricity Suppliers Map** – illustrates the location of electric utilities and suppliers within the Township to illustrate feasibility of supporting proposed development.
- **Robinson Township Topography Elevation Map** – illustrates the topography within the Township to illustrate feasibility of supporting proposed development.
- **Air Strips Map** – illustrates the location of existing air strips within the Township.
- **Designated Truck Route Map** – illustrates the location of existing truck routes within the Township.
- ~~**Publicly Owned: Paved and Gravel Roads Street Map** – illustrates the location and paving material of existing public roads within the Township.~~
- **School Districts Map** – illustrates boundaries of public school districts within the Township.
- ~~**Drains & Water Course Hydrology Features Map** – illustrates the location of drains and water courses throughout the Township to illustrate feasibility of supporting proposed development.~~
- **Transportation Facilities 2022 Map** – illustrates the different types of transportation facilities available within the Township.

- ~~Broadband~~ Merit Survey Respondents with a Minimum Speed of 100/20 Map & Merit Survey Respondents with a Minimum Speed of 25/3 Map – illustrates the availability of highspeed internet within the Township.

Appendix B

M-231 Growth Areas

Following are factors, tables, and maps that provide information specific to the M-231 Growth Areas within the Township.

- Growth Boundary Factors
- Table 1: Growth Boundaries – Development Suitability Factors
- Table 2: Average Daily Traffic and Projections

GROWTH BOUNDARY FACTORS

Delineation of growth boundaries and future land uses are based on a variety of objective and subjective factors. Although factors are not weighted, prioritized, or exclusive, an assessment of information concerning all factors and a cumulative evaluation of the factors serve as the basis for the Robinson Township growth strategy.

1. Road infrastructure (Existing and Planned). Roads are an essential component of community infrastructure and are integral to land use decisions. Therefore, it is critical to ensure that the primary function of arterial roads (such as M-45 and Lincoln) which is to carry relatively high volumes of traffic long distances, is not compromised by inappropriate uses. All too often, the higher traffic volumes and greater visibility of arterial corridors entices businesses seeking that increased exposure to customer traffic. However, if not controlled, the proliferation of individual driveways and frequent in and out turning movements diminishes the capacity of the road and impedes its basic function to move traffic. Therefore, a delicate balance must be maintained between preserving the traffic-carrying function of the arterial road and permitting uses that depend on that traffic.
2. Soils and Natural Resources. Hydric soils are generally considered unsuitable for development due to their historically wet conditions. These soils are typically saturated through a significant part of the growing season or flooded long enough to eliminate oxygen in the root zone. According to the Robinson Township Hazard Mitigation plan, areas with hydric soils "are to be considered flood-prone, wetland, or otherwise suited to have development discouraged or specifically engineered to account for site hydrology." Therefore, the presence of such soils is considered a significant constraint to development due to their instability for buildings and limitations for on-site septic systems.
3. Existing Land Use. Established land use patterns must be considered in determining potential future land use options. Except in rare circumstances where redevelopment is advocated, the existing land use context must be a shaping influence as future land use options are explored. Intensive land uses may not be compatible and could potentially affect historically residential or agricultural areas negatively by reducing property values, increasing traffic, or creating nuisances (noise, hours of operation, glare, odor, etc.).
4. Future Land Use and Zoning. Development should emanate incrementally outward from areas targeted for growth through conscious land use planning. A logical, orderly, sequential growth pattern allows for the gradual expansion of needed infrastructure and other municipal services in a cost-effective and efficient manner. The Township Master Plan and this Growth Area Plan strive to manage growth and diminish incompatible land use relationships. Zoning regulations are the fundamental tools to support plan recommendations. They should ensure that appropriate uses are situated in conformance with the plan and an orderly transition is accomplished from intense uses to very low intensity uses.
5. Survey and Community Preference. Local desires are an important ingredient in any planning effort. All communities are different, local philosophies vary and conditions may

be unique. During past planning efforts, residents were surveyed to gauge their opinions regarding growth and development. The results of that survey provided valuable direction for the preparation of this plan.

6. Utilities. Water and sewer service infrastructure are critical determinants for land use intensity. Where public water and sewer are available, greater intensity of development is feasible. However, where such facilities are unavailable and private systems (septic and well) are employed, the range of potential uses and the intensity of development are severely limited.
7. Truck Routes. Except as expressly permitted under the Truck Route Ordinance, operation of heavy trucks and trailers is restricted to designated truck routes. As commercial and industrial developments are reliant upon trucks for deliveries and general operation, the most suitable lands are those that have direct access to truck routes in all directions.
8. Visibility and Demand. Commercial and industrial zoning map amendments, special land use review and site plan review requests are indicators of general demand for development. Additionally, visibility of property based on new traffic patterns and increase in the number of travelers in the township affects suitability.

The following table includes the application of the assessment factors as they related to the growth areas.

Table 1 Growth Boundaries- Development Suitability Factors

Planning Factor	Lincoln Street Focus Area	Lake Michigan Drive Focus Area	Outlying Areas
1. Road Infrastructure (Existing and Planned)	<p>Medium</p> <ul style="list-style-type: none"> • County Road- Lincoln Street • M-231 	<p>High</p> <ul style="list-style-type: none"> • M-45 Lake Michigan Drive • M-231 	<p>Low</p> <ul style="list-style-type: none"> • County secondary paved roads • County unpaved roads
2. Soils	<p>Low</p> <ul style="list-style-type: none"> • Hydric Soils 	<p>Low</p> <ul style="list-style-type: none"> • Hydric Soils 	<p>Varies</p> <ul style="list-style-type: none"> • Hydric and Non-Hydric Soils
3. Existing Land Use	<p>Low</p> <ul style="list-style-type: none"> • Low and medium density residential (north) • Agricultural land (south) 	<p>High</p> <ul style="list-style-type: none"> • Generally agricultural and undeveloped • Existing commercial 	<p>Low</p> <ul style="list-style-type: none"> • Agricultural uses • Low and medium density residential
4. Future Land Use and Zoning	<p>Low</p> <ul style="list-style-type: none"> • Existing low density residential zoning. • Low density residential future land use planned. 	<p>Medium/High</p> <ul style="list-style-type: none"> • Existing commercial and industrial zoning • Commercial and industrial land use planned 	<p>Low</p> <ul style="list-style-type: none"> • Existing residential zoning • Existing Residential future land use planned
5. Community Survey	<p>Low</p> <ul style="list-style-type: none"> • Development not desired. 	<p>Medium</p> <ul style="list-style-type: none"> • Development more acceptable 	<p>Low</p> <ul style="list-style-type: none"> • Development not desired
6. Utilities	<p>Low</p> <ul style="list-style-type: none"> • No existing or planned water and sewer. 	<p>Medium</p> <ul style="list-style-type: none"> • No existing or planned water and sewer • Closer proximity to existing utilities 	<p>Low</p> <ul style="list-style-type: none"> • No existing or planned water and sewer
7. Truck Routes	<p>Medium</p> <ul style="list-style-type: none"> • Truck routes travel in two directions. 	<p>High</p> <ul style="list-style-type: none"> • Truck routes travel in all directions 	<p>Low</p> <ul style="list-style-type: none"> • Trucks are generally prohibited
8. Visibility and Demand	<p>Medium</p> <ul style="list-style-type: none"> • New bypass traffic capture- significant increase on Lincoln west of M-231 (see traffic projections in Table 2 and Map 1). 	<p>Medium/High</p> <ul style="list-style-type: none"> • Regionally significant intersection 	<p>Low</p> <ul style="list-style-type: none"> • No bypass traffic capture or increases anticipated

	<ul style="list-style-type: none"> • New bypass traffic capture: travelers will stop for convenience-oriented needs but the location will not be a "destination." Some commercial developers may seek to take advantage of a key location and a potential new market resulting from the new hub at Lake Michigan Drive and M -231 (see traffic projections in Table 2). 		
Overall Score	Low/Medium	Medium/High	Low
Recommendation	Consolidated low-intensity commercial around new intersection to the southwest of the Lincoln/M-231 intersection.	Designation of existing commercial and industrial future land use areas as priority area for future development.	No change in growth concept.

Table 2 Average Daily Traffic and Projections

Road Section	2006	2013	2014	2015 (M-231 completed)	2016	2017	2018	2019	2020	2021	2030 Projected
Lincoln east of M-231	2,500										4,800
Lincoln east of 120th		2,078			1,623			1,535			
Lincoln west of M-231	4,300										11,100
Lincoln east of 128th		3,482			6,111			5,906			
Lincoln east of 144th		4,021			5,411			6,007			
120th south of Lincoln	3,000			3,040						2,294	2,400
120th north of Lincoln	1,200			1,156			1,471				2,300
M-45 west of M-231	5,400							6,700			8,400
M-45 east of M-231	7,000							13,750			14,100
M-231 south of Lincoln	N/A							no data available			10,000
M-231 north of Lincoln	N/A							11,000			22,000

Appendix C

Population and Economic Data

The following tables collected from the U.S. Census Bureau and the Ottawa County Department of Strategic Impact are included as a reference to the make up of Robinson Township's Population and Economic Characteristics. The narratives below were created using data from the tables.

- Table 1: Ottawa County, Michigan Decennial Population Data

From 1980 to 2010 Robinson Township was in the top half of municipalities in Ottawa County for population growth. This trend did not continue into 2020. From 2010 to 2020, Robinson Township was in the bottom third of Ottawa County municipalities for population growth.

- Table 2: Data Profile: Selected Social Characteristics

An overwhelming majority (90%) of Robinson Township residents live in the same place they did one year ago. Of the occupied housing units in Robinson Township, 70% are occupied by married couples. Lastly, of the 1,499 individuals enrolled in school, a majority (55%) are enrolled in grades one through eight.

- Table 3: Data Profile: Selected Economic Characteristics

Robinson Township has 4,666 residents that are 16 or older; of which 67% (3,166) are in the labor force. For residents in the labor force 95% are employed with a majority (88%) commuting to work alone. Most residents are employed in the manufacturing (25.4%), retail (7.7%), construction (7.5), and agricultural (7.2%) industries.

The median household income for Robinson Township is \$81,287 with 67% of households earning between \$50,000 and \$149,000 annually.

- Table 4: Data Profile: Selected Housing Characteristics

Approximately 97% of the housing units in Robinson Township are occupied, with a majority being owner-occupied. Of the 2,019 housing units in the Township, 46% have been built since 1990, with 54% being built in or before 1989. Two-thirds of housing units are heated using natural gas.

The median house value is \$235,300.

- Table 5: Data Profile: Demographic and Housing Estimates

Robinson Township has a total population of 6,466 individuals of which 53% are male and 47% are female. The median age is 37 with 96.7% of residents being white.

TABLE 1:
 Ottawa County, Michigan Decennial Population Data
 Data collected from Ottawa County Department of Strategic Impact

1980-1990			1990-2000			2000-2010			2010-2020		
Unit of Government	80-90 #	1990	Unit of Government	90-00 #	2000	Unit of Government	00-10 #	2010	Unit of Government	10-20 #	2020
Georgetown Township	6,568	32,672	Holland Township	11,388	28,911	Allendale Township	7,666	20,708	Georgetown Township	7,156	54,141
Holland Township	3,784	17,523	Georgetown Township	8,986	41,658	Holland Township	6,725	35,636	Allendale Township	5,614	26,322
Holland City (Ottawa pt)	3,319	25,086	Allendale Township	5,020	13,042	Georgetown Township	5,327	46,985	Grand Haven Township	2,859	18,037
Park Township	3,187	13,541	Park Township	4,038	17,579	Zeeland Township	2,358	9,971	Holland Township	2,730	38,366
Grand Haven Township	2,472	9,710	Grand Haven Township	3,568	13,278	Jamestown Township	1,972	7,034	Jamestown Township	2,615	9,649
Allendale Township	1,942	8,022	Zeeland Township	3,141	7,613	Grand Haven Township	1,900	15,178	Zeeland Township	2,062	12,033
Spring Lake Township	1,357	8,214	Holland City (Ottawa pt)	2,760	27,846	Spring Lake Township	1,351	11,977	Blendon Township	1,323	7,095
Hudsonville City	1,326	6,170	Spring Lake Township	2,412	10,626	Tallmadge Township	694	7,575	Tallmadge Township	1,240	8,815
Holland City (Allegan pt)	1,278	5,792	Olive Township	1,825	4,691	Robinson Township	496	6,084	Port Sheldon Township	969	5,209
Blendon Township	977	4,740	Robinson Township	1,663	5,588	Coopersville City	365	4,275	Park Township	871	18,673
Robinson Township	907	3,925	Port Sheldon Township	1,574	4,503	Park Township	223	17,802	Spring Lake Township	803	12,780
Zeeland Township	761	4,472	Holland City (Allegan pt)	1,410	7,202	Crockery Township	178	3,960	Holland City (Allegan pt)	712	7,728
Port Sheldon Township	723	2,929	Jamestown Township	1,003	5,062	Polkton Township	88	2,423	Crockery Township	621	4,581
Zeeland City	653	5,417	Hudsonville City	990	7,160	Blendon Township	51	5,772	Grand Haven City	605	11,017
Coopersville City	532	3,421	Blendon Township	981	5,721	Olive Township	44	4,735	Coopersville City	562	4,837
Jamestown Township	513	4,059	Tallmadge Township	581	6,881	Hudsonville City	(44)	7,116	Hudsonville City	523	7,639
Ferrysburg Village	479	2,919	Coopersville City	489	3,910	Wright Township	(139)	3,147	Holland City (Ottawa pt)	479	26,514
Olive Township	417	2,866	Zeeland City	388	5,805	Ferrysburg Village	(148)	2,892	Robinson Township	313	6,397
Tallmadge Township	373	6,300	Crockery Township	183	3,782	Holland City (Allegan pt)	(186)	7,016	Olive Township	278	5,013
Polkton Township	250	2,277	Chester Township	182	2,315	Spring Lake Village	(191)	2,323	Zeeland City	219	5,723
Grand Haven City	188	11,951	Ferrysburg Village	121	3,040	Port Sheldon Township	(263)	4,240	Spring Lake Village	217	2,540
Chester Township	99	2,133	Polkton Township	58	2,335	Chester Township	(298)	2,017	Polkton Township	148	2,571
Crockery Township	63	3,599	Wright Township	1	3,286	Zeeland City	(301)	5,504	Chester Township	85	2,102
Wright Township	(102)	3,285	Spring Lake Village	(23)	2,514	Grand Haven City	(756)	10,412	Ferrysburg Village	63	2,955
Spring Lake Village	(194)	2,537	Grand Haven City	(783)	11,168	Holland City (Ottawa pt)	(1,811)	26,035	Wright Township	44	3,191
Unit of Government	80-90 #	1990	Unit of Government	90-00 #	2000	Unit of Government	00-10 #	2010	Unit of Government	10-20 #	2020
Ottawa County	30,594	187,768	Ottawa County	50,546	238,314	Ottawa County	25,487	263,801	Ottawa County	32,399	296,200
Michigan	33,243	9,295,287	Michigan	643,157	9,938,444	Michigan	(54,804)	9,883,640	Michigan	193,691	10,077,331

TABLE 2:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Selected Social Characteristics

	Estimate
HOUSEHOLDS BY TYPE	
Total households	1,971
Married-couple household	1,390
With children of the householder under 18 years	(X)
Cohabiting couple household	79
With children of the householder under 18 years	(X)
Male householder, no spouse/partner present	260
With children of the householder under 18 years	(X)
Householder living alone	162
65 years and over	61
Female householder, no spouse/partner present	242
With children of the householder under 18 years	(X)
Householder living alone	85
65 years and over	32
Households with one or more people under 18 years	746
Households with one or more people 65 years and over	550
Average household size	3
Average family size	4
RELATIONSHIP	
Population in households	6,372
Householder	1,971
Spouse	1,355
Unmarried partner	76
Child	2,126
Other relatives	641
Other nonrelatives	203

MARITAL STATUS	
Males 15 years and over	2,514
Never married	746
Now married, except separated	1,551
Separated	-
Widowed	58
Divorced	159
Females 15 years and over	2,218
Never married	409
Now married, except separated	1,457
Separated	45
Widowed	159
Divorced	148
FERTILITY	
Number of women 15 to 50 years old who had a birth in the past 12 months	70
Unmarried women (widowed, divorced, and never married)	11
Per 1,000 unmarried women	23
Per 1,000 women 15 to 50 years old	54
Per 1,000 women 15 to 19 years old	-
Per 1,000 women 20 to 34 years old	108
Per 1,000 women 35 to 50 years old	25
GRANDPARENTS	
Number of grandparents living with own grandchildren under 18 years	189
Grandparents responsible for grandchildren	81
Years responsible for grandchildren	
Less than 1 year	-
1 or 2 years	16
3 or 4 years	7
5 or more years	58
Number of grandparents responsible for own grandchildren under 18 years	81
Who are female	40
Who are married	74
SCHOOL ENROLLMENT	
Population 3 years and over enrolled in school	1,499
Nursery school, preschool	70
Kindergarten	136
Elementary school (grades 1-8)	825
High school (grades 9-12)	281
College or graduate school	187

EDUCATIONAL ATTAINMENT	
Population 25 years and over	4,144
Less than 9th grade	146
9th to 12th grade, no diploma	262
High school graduate (includes equivalency)	1,326
Some college, no degree	885
Associate's degree	491
Bachelor's degree	715
Graduate or professional degree	319
High school graduate or higher	3,736
Bachelor's degree or higher	1,034
VETERAN STATUS	
Civilian population 18 years and over	4,506
Civilian veterans	381
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION	
Total Civilian Noninstitutionalized Population	6,466
With a disability	751
Under 18 years	1,960
With a disability	112
18 to 64 years	3,674
With a disability	376
65 years and over	832
With a disability	263
RESIDENCE 1 YEAR AGO	
Population 1 year and over	6,396
Same house	5,805
Different house (in the U.S. or abroad)	591
Different house in the U.S.	575
Same county	542
Different county	33
Same state	20
Different state	13
Abroad	16
PLACE OF BIRTH	
Total population	6,466
Native	6,157
Born in United States	6,117
State of residence	5,201
Different state	916
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	40
Foreign born	309

U.S. CITIZENSHIP STATUS	
Foreign-born population	309
Naturalized U.S. citizen	146
Not a U.S. citizen	163
YEAR OF ENTRY	
Population born outside the United States	349
Native	40
Entered 2010 or later	-
Entered before 2010	40
Foreign born	309
Entered 2010 or later	73
Entered before 2010	236
WORLD REGION OF BIRTH OF FOREIGN BORN	
Foreign-born population, excluding population born at sea	309
Europe	10
Asia	75
Africa	-
Oceania	-
Latin America	217
Northern America	7
LANGUAGE SPOKEN AT HOME	
Population 5 years and over	6,111
English only	5,632
Language other than English	479
Speak English less than "very well"	280
Spanish	396
Speak English less than "very well"	246
Other Indo-European languages	10
Speak English less than "very well"	-
Asian and Pacific Islander languages	5
Speak English less than "very well"	5
Other languages	68
Speak English less than "very well"	29

ANCESTRY	
Total population	6,466
American	312
Arab	50
Czech	11
Danish	6
Dutch	1,587
English	400
French (except Basque)	125
French Canadian	5
German	1,287
Greek	43
Hungarian	23
Irish	961
Italian	66
Lithuanian	-
Norwegian	60
Polish	487
Portuguese	-
Russian	-
Scotch-Irish	63
Scottish	48
Slovak	17
Subsaharan African	-
Swedish	90
Swiss	6
Ukrainian	37
Welsh	5
West Indian (excluding Hispanic origin groups)	-
COMPUTERS AND INTERNET USE	
Total households	1,971
With a computer	1,899
With a broadband Internet subscription	1,757

TABLE 3:
2020 American Community Survey 5-year Estimates: U.S. Census Bureau
Data Profile: Selected Economic Characteristics

	Estimate
EMPLOYMENT STATUS	
Population 16 years and over	4,666
In labor force	3,116
Civilian labor force	3,116
Employed	2,983
Unemployed	133
Armed Forces	-
Not in labor force	1,550
Civilian labor force	3,116
Unemployment Rate	(X)
Females 16 years and over	2,195
In labor force	1,271
Civilian labor force	1,271
Employed	1,215
Own children of the householder under 6 years	466
All parents in family in labor force	339
Own children of the householder 6 to 17 years	1,489
All parents in family in labor force	785
COMMUTING TO WORK	
Workers 16 years and over	2,930
Car, truck, or van -- drove alone	2,530
Car, truck, or van -- carpooled	271
Public transportation (excluding taxicab)	-
Walked	6
Other means	2
Worked from home	121
Mean travel time to work (minutes)	23
OCCUPATION	
Civilian employed population 16 years and over	2,983
Management, business, science, and arts occupations	1,035
Service occupations	405
Sales and office occupations	561
Natural resources, construction, and maintenance occupations	485
Production, transportation, and material moving occupations	497

INDUSTRY	
Civilian employed population 16 years and over	2,983
Agriculture, forestry, fishing and hunting, and mining	217
Construction	224
Manufacturing	758
Wholesale trade	74
Retail trade	230
Transportation and warehousing, and utilities	155
Information	48
Finance and insurance, and real estate and rental and leasing	91
Professional, scientific, and management, and administrative and waste management services	206
Educational services, and health care and social assistance	506
Arts, entertainment, and recreation, and accommodation and food services	211
Other services, except public administration	159
Public administration	104
CLASS OF WORKER	
Civilian employed population 16 years and over	2,983
Private wage and salary workers	2,570
Government workers	268
Self-employed in own not incorporated business workers	145
Unpaid family workers	-

INCOME AND BENEFITS (IN 2020 INFLATION-ADJUSTED DOLLARS)	
Total households	1,971
Less than \$10,000	26
\$10,000 to \$14,999	18
\$15,000 to \$24,999	62
\$25,000 to \$34,999	87
\$35,000 to \$49,999	149
\$50,000 to \$74,999	494
\$75,000 to \$99,999	398
\$100,000 to \$149,999	429
\$150,000 to \$199,999	214
\$200,000 or more	94
Median household income (dollars)	81,287
Mean household income (dollars)	95,831
With earnings	1,680
Mean earnings (dollars)	90,876
With Social Security	668
Mean Social Security income (dollars)	27,053
With retirement income	447
Mean retirement income (dollars)	22,220
With Supplemental Security Income	115
Mean Supplemental Security Income (dollars)	11,865
With cash public assistance income	71
Mean cash public assistance income (dollars)	3,410
With Food Stamp/SNAP benefits in the past 12 months	80
Families	1,637
Less than \$10,000	8
\$10,000 to \$14,999	9
\$15,000 to \$24,999	24
\$25,000 to \$34,999	63
\$35,000 to \$49,999	110
\$50,000 to \$74,999	370
\$75,000 to \$99,999	405
\$100,000 to \$149,999	344
\$150,000 to \$199,999	214
\$200,000 or more	90
Median family income (dollars)	85,766
Mean family income (dollars)	102,011
Per capita income (dollars)	29,397
Nonfamily households	334
Median nonfamily income (dollars)	51,058
Mean nonfamily income (dollars)	57,690
Median earnings for workers (dollars)	36,603
Median earnings for male full-time, year-round workers (dollars)	60,168
Median earnings for female full-time, year-round workers (dollars)	39,659

HEALTH INSURANCE COVERAGE	
Civilian noninstitutionalized population	6,466
With health insurance coverage	6,358
With private health insurance	5,238
With public coverage	2,142
No health insurance coverage	108
Civilian noninstitutionalized population under 19 years	2,015
No health insurance coverage	10
Civilian noninstitutionalized population 19 to 64 years	3,619
In labor force:	2,902
Employed:	2,781
With health insurance coverage	2,712
With private health insurance	2,592
With public coverage	182
No health insurance coverage	69
Unemployed:	121
With health insurance coverage	121
With private health insurance	113
With public coverage	8
No health insurance coverage	-
Not in labor force:	717
With health insurance coverage	693
With private health insurance	482
With public coverage	365
No health insurance coverage	24
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL (X) = Data not Available	
All families	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
Married couple families	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
Families with female householder, no spouse present	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
All people	(X)
Under 18 years	(X)
Related children of the householder under 18 years	(X)
Related children of the householder under 5 years	(X)
Related children of the householder 5 to 17 years	(X)
18 years and over	(X)
18 to 64 years	(X)
65 years and over	(X)
People in families	(X)
Unrelated individuals 15 years and over	(X)

TABLE 4:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Selected Housing Characteristics

	Estimate
HOUSING OCCUPANCY	
Total housing units	2,019
Occupied housing units	1,971
Vacant housing units	48
Homeowner vacancy rate	-
Rental vacancy rate	-
UNITS IN STRUCTURE	
Total housing units	2,019
1-unit, detached	1,917
1-unit, attached	24
2 units	26
3 or 4 units	5
5 to 9 units	-
10 to 19 units	4
20 or more units	-
Mobile home	43
Boat, RV, van, etc.	-
YEAR STRUCTURE BUILT	
Total housing units	2,019
Built 2014 or later	110
Built 2010 to 2013	53
Built 2000 to 2009	264
Built 1990 to 1999	503
Built 1980 to 1989	241
Built 1970 to 1979	445
Built 1960 to 1969	146
Built 1950 to 1959	129
Built 1940 to 1949	39
Built 1939 or earlier	89

ROOMS	
Total housing units	2,019
1 room	-
2 rooms	-
3 rooms	14
4 rooms	272
5 rooms	363
6 rooms	343
7 rooms	270
8 rooms	300
9 rooms or more	457
Median rooms	7
BEDROOMS	
Total housing units	2,019
No bedroom	-
1 bedroom	28
2 bedrooms	327
3 bedrooms	959
4 bedrooms	515
5 or more bedrooms	190
HOUSING TENURE	
Occupied housing units	1,971
Owner-occupied	1,854
Renter-occupied	117
Average household size of owner-occupied unit	3
Average household size of renter-occupied unit	4
YEAR HOUSEHOLDER MOVED INTO UNIT	
Occupied housing units	1,971
Moved in 2019 or later	61
Moved in 2015 to 2018	283
Moved in 2010 to 2014	410
Moved in 2000 to 2009	451
Moved in 1990 to 1999	386
Moved in 1989 and earlier	380
VEHICLES AVAILABLE	
Occupied housing units	1,971
No vehicles available	45
1 vehicle available	321
2 vehicles available	794
3 or more vehicles available	811

HOUSE HEATING FUEL	
Occupied housing units	1,971
Utility gas	1,314
Bottled, tank, or LP gas	355
Electricity	98
Fuel oil, kerosene, etc.	15
Coal or coke	-
Wood	124
Solar energy	-
Other fuel	32
No fuel used	33
SELECTED CHARACTERISTICS	
Occupied housing units	1,971
Lacking complete plumbing facilities	-
Lacking complete kitchen facilities	-
No telephone service available	15
OCCUPANTS PER ROOM	
Occupied housing units	1,971
1.00 or less	1,912
1.01 to 1.50	53
1.51 or more	6
VALUE	
Owner-occupied units	1,854
Less than \$50,000	80
\$50,000 to \$99,999	38
\$100,000 to \$149,999	241
\$150,000 to \$199,999	352
\$200,000 to \$299,999	550
\$300,000 to \$499,999	516
\$500,000 to \$999,999	77
\$1,000,000 or more	-
Median (dollars)	235,300
MORTGAGE STATUS	
Owner-occupied units	1,854
Housing units with a mortgage	1,279
Housing units without a mortgage	575

SELECTED MONTHLY OWNER COSTS (SMOC)	
Housing units with a mortgage	1,279
Less than \$500	37
\$500 to \$999	208
\$1,000 to \$1,499	471
\$1,500 to \$1,999	345
\$2,000 to \$2,499	111
\$2,500 to \$2,999	44
\$3,000 or more	63
Median (dollars)	1,428
Housing units without a mortgage	575
Less than \$250	59
\$250 to \$399	130
\$400 to \$599	266
\$600 to \$799	89
\$800 to \$999	27
\$1,000 or more	4
Median (dollars)	477
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)	
Housing units with a mortgage (excluding units where SMOCAPI cannot be computed)	1,279
Less than 20.0 percent	726
20.0 to 24.9 percent	151
25.0 to 29.9 percent	198
30.0 to 34.9 percent	83
35.0 percent or more	121
Not computed	-
Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed)	562
Less than 10.0 percent	335
10.0 to 14.9 percent	128
15.0 to 19.9 percent	25
20.0 to 24.9 percent	26
25.0 to 29.9 percent	34
30.0 to 34.9 percent	-
35.0 percent or more	14
Not computed	13

GROSS RENT	
Occupied units paying rent	63
Less than \$500	4
\$500 to \$999	30
\$1,000 to \$1,499	29
\$1,500 to \$1,999	-
\$2,000 to \$2,499	-
\$2,500 to \$2,999	-
\$3,000 or more	-
Median (dollars)	964
No rent paid	54
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)	
Occupied units paying rent (excluding units where GRAPI cannot be computed)	63
Less than 15.0 percent	27
15.0 to 19.9 percent	7
20.0 to 24.9 percent	24
25.0 to 29.9 percent	-
30.0 to 34.9 percent	-
35.0 percent or more	5
Not computed	54

TABLE 5:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Demographic and Housing Estimates

	Estimate
SEX AND AGE	
Total population	6,466
Male	3,442
Female	3,024
Sex ratio (males per 100 females)	114
Under 5 years	355
5 to 9 years	589
10 to 14 years	790
15 to 19 years	358
20 to 24 years	230
25 to 34 years	708
35 to 44 years	847
45 to 54 years	913
55 to 59 years	440
60 to 64 years	404
65 to 74 years	458
75 to 84 years	323
85 years and over	51
Median age (years)	37
Under 18 years	1,960
16 years and over	4,666
18 years and over	4,506
21 years and over	4,332
62 years and over	1,136
65 years and over	832
18 years and over	4,506
Male	2,344
Female	2,162
Sex ratio (males per 100 females)	108
65 years and over	832
Male	420
Female	412
Sex ratio (males per 100 females)	102

RACE	
Total population	6,466
One race	6,191
Two or more races	275
One race	6,191
White	5,982
Black or African American	21
American Indian and Alaska Native	28
Cherokee tribal grouping	-
Chippewa tribal grouping	-
Navajo tribal grouping	-
Sioux tribal grouping	-
Asian	16
Asian Indian	-
Chinese	16
Filipino	-
Japanese	-
Korean	-
Vietnamese	-
Other Asian	-
Native Hawaiian and Other Pacific Islander	-
Native Hawaiian	-
Chamorro	-
Samoan	-
Other Pacific Islander	-
Some other race	144
Two or more races	275
White and Black or African American	-
White and American Indian and Alaska Native	36
White and Asian	-
Black or African American and American Indian and Alaska Native	-
Race alone or in combination with one or more other races	
Total population	6,466
White	6,257
Black or African American	21
American Indian and Alaska Native	64
Asian	16
Native Hawaiian and Other Pacific Islander	-
Some other race	383

HISPANIC OR LATINO AND RACE	
Total population	6,466
Hispanic or Latino (of any race)	529
Mexican	399
Puerto Rican	35
Cuban	58
Other Hispanic or Latino	37
Not Hispanic or Latino	5,937
White alone	5,670
Black or African American alone	21
American Indian and Alaska Native alone	28
Asian alone	16
Native Hawaiian and Other Pacific Islander alone	-
Some other race alone	-
Two or more races	202
Two races including Some other race	166
Two races excluding Some other race, and Three or more races	36
Total housing units	2,019
CITIZEN, VOTING AGE POPULATION	
Citizen, 18 and over population	4,343
Male	2,221
Female	2,122

Sources:

Table 1: https://www.miottawa.org/Departments/Planning/county_statistics.htm

Table 2: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP02>

Table 3: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP03>

Table 4: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP04>

Table 5: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP05>

Appendix D

Robinson Township Master Plan Update Community Survey 2021—Results & Robinson Township
Master Plan Public Workshops: Results **Summary**

A summary of the Master Plan Update Community Survey 2021 and the Public Workshops is provided within this Appendix D. The entirety of the results is available at the Township Hall.

Appendix E

~~Robinson Township Master Plan Public Workshops: Results~~

Appendix E

Water Supply System Master Plan for Robinson Township

Available within the December 2014 Water Supply System Master Plan is the following:

- Introduction
- Existing Water System
- Water Use Projections
- Proposed Water Supply System
- Procedures for System Extensions
- Figures
 - Figure 1 – Robinson Township Water Plan – Existing Systems
 - Figure 2 – Robinson Township Proposed Land Use Plan
 - Figure 3 – Wells in Robinson Township per Wellogic
 - Figure 4 – Robinson Township Water Master Plan
 - Figure 5 – Robinson Township Water Master Plan – Northeast
 - Figure 6 – Robinson Township Water Master Plan – Southeast
 - Figure 7 – Robinson Township Water Master Plan – Northwest

Appendix F

Wastewater Master Plan

Available within the March 2014 Wastewater Master Plan is the following:

- Introduction
- Master Plan
- Service to M-231 & M-45 Interchange
- Service to M-321 & Lincoln Street
- Tables
 - Table 1 – Capacity Analysis
 - Table 2 – Projected Flow Rates
 - Table 3 – Cost Estimate Connect to Ottawa County System at Fillmore Street and 120th Avenue
 - Table 4 – Cost Estimate Service from West Central Ottawa Treatment Plant
 - Table 5 – Cost Estimate Forcemain from M-45 and M-231 to Grand Haven Charter Township Pump Station
 - Table 6 – Cost Estimate Service from Allendale Township
 - Table 7 – Cost Estimate On-Site Septic Tank and Drainfield System
 - Table 8 – Cost Estimate Wastewater Collection and Treatment System/On-site Lagoon System
- Figures
 - Figure 1 – Zoning Map
 - Figure 2 – Wastewater Master Plan
 - Figure 3 – Ottawa County Complex, Flow Schematic

Appendix G

Aquifer Recharge in Robinson Township, Ottawa County – David P. Lusch

Appendix

Available within this appendix is the following data.

Appendix A – Community Mapping

Appendix B – M-231 Growth Areas

Appendix C – Population and Economic Data, Robinson Township

Appendix D – Robinson Township Master Plan Update Community Survey 2021 & Robinson
Township Master Plan Public Workshops: Results Summary

Appendix E – Water Supply System Master Plan for Robinson Township

Appendix F – Wastewater Master Plan

Appendix G – Aquifer Recharge in Robinson Township, Ottawa County – David P. Lusch

Appendix A Community Mapping

Following are the community maps as well as their established purpose, which are incorporated as part of the Master Plan. These maps are not intended to be limited to their purposes provided below but rather establish a minimum relationship to the Master Plan.

- **Master Plan Map** – creates future land use classifications and delineates boundaries for certain uses of land.
- **Soil Limitations for Residential Development without Public Water Map** - illustrates soil limitations for septic systems to illustrate feasibility of supporting proposed development.
- **Parks & Recreation Areas Map** – illustrates existing parks and recreation areas available to the public within the Township.
- **Natural Gas Suppliers Map** – illustrates the location of natural gas utilities and suppliers within the Township to illustrate feasibility of supporting proposed development.
- **Marathon Pipeline Map** – illustrates the general location of the Marathon Pipeline within the Township.
- **Electricity Suppliers Map** – illustrates the location of electric utilities and suppliers within the Township to illustrate feasibility of supporting proposed development.
- **Robinson Township Elevation Map** – illustrates the topography within the Township to illustrate feasibility of supporting proposed development.
- **Air Strips Map** – illustrates the location of existing air strips within the Township.
- **Designated Truck Route Map** – illustrates the location of existing truck routes within the Township.
- **Street Map** – illustrates the location and paving material of existing public roads within the Township.
- **School Districts Map** – illustrates boundaries of public school districts within the Township.
- **Hydrology Features Map** – illustrates the location of drains and water courses throughout the Township to illustrate feasibility of supporting proposed development.
- **Transportation Facilities 2022 Map** – illustrates the different types of transportation facilities available within the Township.
- **Merit Survey Respondents with a Minimum Speed of 100/20 Map & Merit Survey Respondents with a Minimum Speed of 25/3 Map** – illustrates the availability of highspeed internet within the Township.

Appendix B

M-231 Growth Areas

Following are factors, tables, and maps that provide information specific to the M-231 Growth Areas within the Township.

- Growth Boundary Factors
- Table 1: Growth Boundaries – Development Suitability Factors
- Table 2: Average Daily Traffic and Projections

GROWTH BOUNDARY FACTORS

Delineation of growth boundaries and future land uses are based on a variety of objective and subjective factors. Although factors are not weighted, prioritized, or exclusive, an assessment of information concerning all factors and a cumulative evaluation of the factors serve as the basis for the Robinson Township growth strategy.

1. Road infrastructure (Existing and Planned). Roads are an essential component of community infrastructure and are integral to land use decisions. Therefore, it is critical to ensure that the primary function of arterial roads (such as M-45 and Lincoln) which is to carry relatively high volumes of traffic long distances, is not compromised by inappropriate uses. All too often, the higher traffic volumes and greater visibility of arterial corridors entices businesses seeking that increased exposure to customer traffic. However, if not controlled, the proliferation of individual driveways and frequent in and out turning movements diminishes the capacity of the road and impedes its basic function to move traffic. Therefore, a delicate balance must be maintained between preserving the traffic-carrying function of the arterial road and permitting uses that depend on that traffic.
2. Soils and Natural Resources. Hydric soils are generally considered unsuitable for development due to their historically wet conditions. These soils are typically saturated through a significant part of the growing season or flooded long enough to eliminate oxygen in the root zone. According to the Robinson Township Hazard Mitigation plan, areas with hydric soils "are to be considered flood-prone, wetland, or otherwise suited to have development discouraged or specifically engineered to account for site hydrology." Therefore, the presence of such soils is considered a significant constraint to development due to their instability for buildings and limitations for on-site septic systems.
3. Existing Land Use. Established land use patterns must be considered in determining potential future land use options. Except in rare circumstances where redevelopment is advocated, the existing land use context must be a shaping influence as future land use options are explored. Intensive land uses may not be compatible and could potentially affect historically residential or agricultural areas negatively by reducing property values, increasing traffic, or creating nuisances (noise, hours of operation, glare, odor, etc.).
4. Future Land Use and Zoning. Development should emanate incrementally outward from areas targeted for growth through conscious land use planning. A logical, orderly, sequential growth pattern allows for the gradual expansion of needed infrastructure and other municipal services in a cost-effective and efficient manner. The Township Master Plan and this Growth Area Plan strive to manage growth and diminish incompatible land use relationships. Zoning regulations are the fundamental tools to support plan recommendations. They should ensure that appropriate uses are situated in conformance with the plan and an orderly transition is accomplished from intense uses to very low intensity uses.
5. Survey and Community Preference. Local desires are an important ingredient in any planning effort. All communities are different, local philosophies vary and conditions may

be unique. During past planning efforts, residents were surveyed to gauge their opinions regarding growth and development. The results of that survey provided valuable direction for the preparation of this plan.

6. Utilities. Water and sewer service infrastructure are critical determinants for land use intensity. Where public water and sewer are available, greater intensity of development is feasible. However, where such facilities are unavailable and private systems (septic and well) are employed, the range of potential uses and the intensity of development are severely limited.
7. Truck Routes. Except as expressly permitted under the Truck Route Ordinance, operation of heavy trucks and trailers is restricted to designated truck routes. As commercial and industrial developments are reliant upon trucks for deliveries and general operation, the most suitable lands are those that have direct access to truck routes in all directions.
8. Visibility and Demand. Commercial and industrial zoning map amendments, special land use review and site plan review requests are indicators of general demand for development. Additionally, visibility of property based on new traffic patterns and increase in the number of travelers in the township affects suitability.

The following table includes the application of the assessment factors as they related to the growth areas.

Table 1 Growth Boundaries- Development Suitability Factors

Planning Factor	Lincoln Street Focus Area	Lake Michigan Drive Focus Area	Outlying Areas
1. Road Infrastructure (Existing and Planned)	<p>Medium</p> <ul style="list-style-type: none"> • County Road- Lincoln Street • M-231 	<p>High</p> <ul style="list-style-type: none"> • M-45 Lake Michigan Drive • M-231 	<p>Low</p> <ul style="list-style-type: none"> • County secondary paved roads • County unpaved roads
2. Soils	<p>Low</p> <ul style="list-style-type: none"> • Hydric Soils 	<p>Low</p> <ul style="list-style-type: none"> • Hydric Soils 	<p>Varies</p> <ul style="list-style-type: none"> • Hydric and Non-Hydric Soils
3. Existing Land Use	<p>Low</p> <ul style="list-style-type: none"> • Low and medium density residential (north) • Agricultural land (south) 	<p>High</p> <ul style="list-style-type: none"> • Generally agricultural and undeveloped • Existing commercial 	<p>Low</p> <ul style="list-style-type: none"> • Agricultural uses • Low and medium density residential
4. Future Land Use and Zoning	<p>Low</p> <ul style="list-style-type: none"> • Existing low density residential zoning. • Low density residential future land use planned. 	<p>Medium/High</p> <ul style="list-style-type: none"> • Existing commercial and industrial zoning • Commercial and industrial land use planned 	<p>Low</p> <ul style="list-style-type: none"> • Existing residential zoning • Existing Residential future land use planned
5. Community Survey	<p>Low</p> <ul style="list-style-type: none"> • Development not desired. 	<p>Medium</p> <ul style="list-style-type: none"> • Development more acceptable 	<p>Low</p> <ul style="list-style-type: none"> • Development not desired
6. Utilities	<p>Low</p> <ul style="list-style-type: none"> • No existing or planned water and sewer. 	<p>Medium</p> <ul style="list-style-type: none"> • No existing or planned water and sewer • Closer proximity to existing utilities 	<p>Low</p> <ul style="list-style-type: none"> • No existing or planned water and sewer
7. Truck Routes	<p>Medium</p> <ul style="list-style-type: none"> • Truck routes travel in two directions. 	<p>High</p> <ul style="list-style-type: none"> • Truck routes travel in all directions 	<p>Low</p> <ul style="list-style-type: none"> • Trucks are generally prohibited
8. Visibility and Demand	<p>Medium</p> <ul style="list-style-type: none"> • New bypass traffic capture- significant increase on Lincoln west of M-231 (see traffic projections in Table 2 and Map 1). 	<p>Medium/High</p> <ul style="list-style-type: none"> • Regionally significant intersection 	<p>Low</p> <ul style="list-style-type: none"> • No bypass traffic capture or increases anticipated

	<ul style="list-style-type: none"> • New bypass traffic capture: travelers will stop for convenience-oriented needs but the location will not be a "destination." Some commercial developers may seek to take advantage of a key location and a potential new market resulting from the new hub at Lake Michigan Drive and M -231 (see traffic projections in Table 2). 		
Overall Score	Low/Medium	Medium/High	Low
Recommendation	Consolidated low-intensity commercial around new intersection to the southwest of the Lincoln/M-231 intersection.	Designation of existing commercial and industrial future land use areas as priority area for future development.	No change in growth concept.

Table 2 Average Daily Traffic and Projections

Road Section	2006	2013	2014	2015 (M-231 completed)	2016	2017	2018	2019	2020	2021	2030 Projected
Lincoln east of M-231	2,500										4,800
Lincoln east of 120th		2,078			1,623			1,535			
Lincoln west of M-231	4,300										11,100
Lincoln east of 128th		3,482			6,111			5,906			
Lincoln east of 144th		4,021			5,411			6,007			
120th south of Lincoln	3,000			3,040						2,294	2,400
120th north of Lincoln	1,200			1,156			1,471				2,300
M-45 west of M-231	5,400							6,700			8,400
M-45 east of M-231	7,000							13,750			14,100
M-231 south of Lincoln	N/A							no data available			10,000
M-231 north of Lincoln	N/A							11,000			22,000

Appendix C

Population and Economic Data

The following tables collected from the U.S. Census Bureau and the Ottawa County Department of Strategic Impact are included as a reference to the make up of Robinson Township's Population and Economic Characteristics. The narratives below were created using data from the tables.

- Table 1: Ottawa County, Michigan Decennial Population Data

From 1980 to 2010 Robinson Township was in the top half of municipalities in Ottawa County for population growth. This trend did not continue into 2020. From 2010 to 2020, Robinson Township was in the bottom third of Ottawa County municipalities for population growth.

- Table 2: Data Profile: Selected Social Characteristics

An overwhelming majority (90%) of Robinson Township residents live in the same place they did one year ago. Of the occupied housing units in Robinson Township, 70% are occupied by married couples. Lastly, of the 1,499 individuals enrolled in school, a majority (55%) are enrolled in grades one through eight.

- Table 3: Data Profile: Selected Economic Characteristics

Robinson Township has 4,666 residents that are 16 or older; of which 67% (3,166) are in the labor force. For residents in the labor force 95% are employed with a majority (88%) commuting to work alone. Most residents are employed in the manufacturing (25.4%), retail (7.7%), construction (7.5), and agricultural (7.2%) industries.

The median household income for Robinson Township is \$81,287 with 67% of households earning between \$50,000 and \$149,000 annually.

- Table 4: Data Profile: Selected Housing Characteristics

Approximately 97% of the housing units in Robinson Township are occupied, with a majority being owner-occupied. Of the 2,019 housing units in the Township, 46% have been built since 1990, with 54% being built in or before 1989. Two-thirds of housing units are heated using natural gas.

The median house value is \$235,300.

- Table 5: Data Profile: Demographic and Housing Estimates

Robinson Township has a total population of 6,466 individuals of which 53% are male and 47% are female. The median age is 37 with 96.7% of residents being white.

TABLE 1:
 Ottawa County, Michigan Decennial Population Data
 Data collected from Ottawa County Department of Strategic Impact

1980-1990			1990-2000			2000-2010			2010-2020		
Unit of Government	80-90 #	1990	Unit of Government	90-00 #	2000	Unit of Government	00-10 #	2010	Unit of Government	10-20 #	2020
Georgetown Township	6,568	32,672	Holland Township	11,388	28,911	Allendale Township	7,666	20,708	Georgetown Township	7,156	54,141
Holland Township	3,784	17,523	Georgetown Township	8,986	41,658	Holland Township	6,725	35,636	Allendale Township	5,614	26,322
Holland City (Ottawa pt)	3,319	25,086	Allendale Township	5,020	13,042	Georgetown Township	5,327	46,985	Grand Haven Township	2,859	18,037
Park Township	3,187	13,541	Park Township	4,038	17,579	Zeeland Township	2,358	9,971	Holland Township	2,730	38,366
Grand Haven Township	2,472	9,710	Grand Haven Township	3,568	13,278	Jamestown Township	1,972	7,034	Jamestown Township	2,615	9,649
Allendale Township	1,942	8,022	Zeeland Township	3,141	7,613	Grand Haven Township	1,900	15,178	Zeeland Township	2,062	12,033
Spring Lake Township	1,357	8,214	Holland City (Ottawa pt)	2,760	27,846	Spring Lake Township	1,351	11,977	Blendon Township	1,323	7,095
Hudsonville City	1,326	6,170	Spring Lake Township	2,412	10,626	Tallmadge Township	694	7,575	Tallmadge Township	1,240	8,815
Holland City (Allegan pt)	1,278	5,792	Olive Township	1,825	4,691	Robinson Township	496	6,084	Port Sheldon Township	969	5,209
Blendon Township	977	4,740	Robinson Township	1,663	5,588	Coopersville City	365	4,275	Park Township	871	18,673
Robinson Township	907	3,925	Port Sheldon Township	1,574	4,503	Park Township	223	17,802	Spring Lake Township	803	12,780
Zeeland Township	761	4,472	Holland City (Allegan pt)	1,410	7,202	Crockery Township	178	3,960	Holland City (Allegan pt)	712	7,728
Port Sheldon Township	723	2,929	Jamestown Township	1,003	5,062	Polkton Township	88	2,423	Crockery Township	621	4,581
Zeeland City	653	5,417	Hudsonville City	990	7,160	Blendon Township	51	5,772	Grand Haven City	605	11,017
Coopersville City	532	3,421	Blendon Township	981	5,721	Olive Township	44	4,735	Coopersville City	562	4,837
Jamestown Township	513	4,059	Tallmadge Township	581	6,881	Hudsonville City	(44)	7,116	Hudsonville City	523	7,639
Ferrysburg Village	479	2,919	Coopersville City	489	3,910	Wright Township	(139)	3,147	Holland City (Ottawa pt)	479	26,514
Olive Township	417	2,866	Zeeland City	388	5,805	Ferrysburg Village	(148)	2,892	Robinson Township	313	6,397
Tallmadge Township	373	6,300	Crockery Township	183	3,782	Holland City (Allegan pt)	(186)	7,016	Olive Township	278	5,013
Polkton Township	250	2,277	Chester Township	182	2,315	Spring Lake Village	(191)	2,323	Zeeland City	219	5,723
Grand Haven City	188	11,951	Ferrysburg Village	121	3,040	Port Sheldon Township	(263)	4,240	Spring Lake Village	217	2,540
Chester Township	99	2,133	Polkton Township	58	2,335	Chester Township	(298)	2,017	Polkton Township	148	2,571
Crockery Township	63	3,599	Wright Township	1	3,286	Zeeland City	(301)	5,504	Chester Township	85	2,102
Wright Township	(102)	3,285	Spring Lake Village	(23)	2,514	Grand Haven City	(756)	10,412	Ferrysburg Village	63	2,955
Spring Lake Village	(194)	2,537	Grand Haven City	(783)	11,168	Holland City (Ottawa pt)	(1,811)	26,035	Wright Township	44	3,191
Unit of Government	80-90 #	1990	Unit of Government	90-00 #	2000	Unit of Government	00-10 #	2010	Unit of Government	10-20 #	2020
Ottawa County	30,594	187,768	Ottawa County	50,546	238,314	Ottawa County	25,487	263,801	Ottawa County	32,399	296,200
Michigan	33,243	9,295,287	Michigan	643,157	9,938,444	Michigan	(54,804)	9,883,640	Michigan	193,691	10,077,331

TABLE 2:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Selected Social Characteristics

	Estimate
HOUSEHOLDS BY TYPE	
Total households	1,971
Married-couple household	1,390
With children of the householder under 18 years	(X)
Cohabiting couple household	79
With children of the householder under 18 years	(X)
Male householder, no spouse/partner present	260
With children of the householder under 18 years	(X)
Householder living alone	162
65 years and over	61
Female householder, no spouse/partner present	242
With children of the householder under 18 years	(X)
Householder living alone	85
65 years and over	32
Households with one or more people under 18 years	746
Households with one or more people 65 years and over	550
Average household size	3
Average family size	4
RELATIONSHIP	
Population in households	6,372
Householder	1,971
Spouse	1,355
Unmarried partner	76
Child	2,126
Other relatives	641
Other nonrelatives	203

MARITAL STATUS	
Males 15 years and over	2,514
Never married	746
Now married, except separated	1,551
Separated	-
Widowed	58
Divorced	159
Females 15 years and over	2,218
Never married	409
Now married, except separated	1,457
Separated	45
Widowed	159
Divorced	148
FERTILITY	
Number of women 15 to 50 years old who had a birth in the past 12 months	70
Unmarried women (widowed, divorced, and never married)	11
Per 1,000 unmarried women	23
Per 1,000 women 15 to 50 years old	54
Per 1,000 women 15 to 19 years old	-
Per 1,000 women 20 to 34 years old	108
Per 1,000 women 35 to 50 years old	25
GRANDPARENTS	
Number of grandparents living with own grandchildren under 18 years	189
Grandparents responsible for grandchildren	81
Years responsible for grandchildren	
Less than 1 year	-
1 or 2 years	16
3 or 4 years	7
5 or more years	58
Number of grandparents responsible for own grandchildren under 18 years	81
Who are female	40
Who are married	74
SCHOOL ENROLLMENT	
Population 3 years and over enrolled in school	1,499
Nursery school, preschool	70
Kindergarten	136
Elementary school (grades 1-8)	825
High school (grades 9-12)	281
College or graduate school	187

EDUCATIONAL ATTAINMENT	
Population 25 years and over	4,144
Less than 9th grade	146
9th to 12th grade, no diploma	262
High school graduate (includes equivalency)	1,326
Some college, no degree	885
Associate's degree	491
Bachelor's degree	715
Graduate or professional degree	319
High school graduate or higher	3,736
Bachelor's degree or higher	1,034
VETERAN STATUS	
Civilian population 18 years and over	4,506
Civilian veterans	381
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION	
Total Civilian Noninstitutionalized Population	6,466
With a disability	751
Under 18 years	1,960
With a disability	112
18 to 64 years	3,674
With a disability	376
65 years and over	832
With a disability	263
RESIDENCE 1 YEAR AGO	
Population 1 year and over	6,396
Same house	5,805
Different house (in the U.S. or abroad)	591
Different house in the U.S.	575
Same county	542
Different county	33
Same state	20
Different state	13
Abroad	16
PLACE OF BIRTH	
Total population	6,466
Native	6,157
Born in United States	6,117
State of residence	5,201
Different state	916
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	40
Foreign born	309

U.S. CITIZENSHIP STATUS	
Foreign-born population	309
Naturalized U.S. citizen	146
Not a U.S. citizen	163
YEAR OF ENTRY	
Population born outside the United States	349
Native	40
Entered 2010 or later	-
Entered before 2010	40
Foreign born	309
Entered 2010 or later	73
Entered before 2010	236
WORLD REGION OF BIRTH OF FOREIGN BORN	
Foreign-born population, excluding population born at sea	309
Europe	10
Asia	75
Africa	-
Oceania	-
Latin America	217
Northern America	7
LANGUAGE SPOKEN AT HOME	
Population 5 years and over	6,111
English only	5,632
Language other than English	479
Speak English less than "very well"	280
Spanish	396
Speak English less than "very well"	246
Other Indo-European languages	10
Speak English less than "very well"	-
Asian and Pacific Islander languages	5
Speak English less than "very well"	5
Other languages	68
Speak English less than "very well"	29

ANCESTRY	
Total population	6,466
American	312
Arab	50
Czech	11
Danish	6
Dutch	1,587
English	400
French (except Basque)	125
French Canadian	5
German	1,287
Greek	43
Hungarian	23
Irish	961
Italian	66
Lithuanian	-
Norwegian	60
Polish	487
Portuguese	-
Russian	-
Scotch-Irish	63
Scottish	48
Slovak	17
Subsaharan African	-
Swedish	90
Swiss	6
Ukrainian	37
Welsh	5
West Indian (excluding Hispanic origin groups)	-
COMPUTERS AND INTERNET USE	
Total households	1,971
With a computer	1,899
With a broadband Internet subscription	1,757

TABLE 3:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Selected Economic Characteristics

	Estimate
EMPLOYMENT STATUS	
Population 16 years and over	4,666
In labor force	3,116
Civilian labor force	3,116
Employed	2,983
Unemployed	133
Armed Forces	-
Not in labor force	1,550
Civilian labor force	3,116
Unemployment Rate	(X)
Females 16 years and over	2,195
In labor force	1,271
Civilian labor force	1,271
Employed	1,215
Own children of the householder under 6 years	466
All parents in family in labor force	339
Own children of the householder 6 to 17 years	1,489
All parents in family in labor force	785
COMMUTING TO WORK	
Workers 16 years and over	2,930
Car, truck, or van -- drove alone	2,530
Car, truck, or van -- carpooled	271
Public transportation (excluding taxicab)	-
Walked	6
Other means	2
Worked from home	121
Mean travel time to work (minutes)	23
OCCUPATION	
Civilian employed population 16 years and over	2,983
Management, business, science, and arts occupations	1,035
Service occupations	405
Sales and office occupations	561
Natural resources, construction, and maintenance occupations	485
Production, transportation, and material moving occupations	497

INDUSTRY	
Civilian employed population 16 years and over	2,983
Agriculture, forestry, fishing and hunting, and mining	217
Construction	224
Manufacturing	758
Wholesale trade	74
Retail trade	230
Transportation and warehousing, and utilities	155
Information	48
Finance and insurance, and real estate and rental and leasing	91
Professional, scientific, and management, and administrative and waste management services	206
Educational services, and health care and social assistance	506
Arts, entertainment, and recreation, and accommodation and food services	211
Other services, except public administration	159
Public administration	104
CLASS OF WORKER	
Civilian employed population 16 years and over	2,983
Private wage and salary workers	2,570
Government workers	268
Self-employed in own not incorporated business workers	145
Unpaid family workers	-

INCOME AND BENEFITS (IN 2020 INFLATION-ADJUSTED DOLLARS)	
Total households	1,971
Less than \$10,000	26
\$10,000 to \$14,999	18
\$15,000 to \$24,999	62
\$25,000 to \$34,999	87
\$35,000 to \$49,999	149
\$50,000 to \$74,999	494
\$75,000 to \$99,999	398
\$100,000 to \$149,999	429
\$150,000 to \$199,999	214
\$200,000 or more	94
Median household income (dollars)	81,287
Mean household income (dollars)	95,831
With earnings	1,680
Mean earnings (dollars)	90,876
With Social Security	668
Mean Social Security income (dollars)	27,053
With retirement income	447
Mean retirement income (dollars)	22,220
With Supplemental Security Income	115
Mean Supplemental Security Income (dollars)	11,865
With cash public assistance income	71
Mean cash public assistance income (dollars)	3,410
With Food Stamp/SNAP benefits in the past 12 months	80
Families	1,637
Less than \$10,000	8
\$10,000 to \$14,999	9
\$15,000 to \$24,999	24
\$25,000 to \$34,999	63
\$35,000 to \$49,999	110
\$50,000 to \$74,999	370
\$75,000 to \$99,999	405
\$100,000 to \$149,999	344
\$150,000 to \$199,999	214
\$200,000 or more	90
Median family income (dollars)	85,766
Mean family income (dollars)	102,011
Per capita income (dollars)	29,397
Nonfamily households	334
Median nonfamily income (dollars)	51,058
Mean nonfamily income (dollars)	57,690
Median earnings for workers (dollars)	36,603
Median earnings for male full-time, year-round workers (dollars)	60,168
Median earnings for female full-time, year-round workers (dollars)	39,659

HEALTH INSURANCE COVERAGE	
Civilian noninstitutionalized population	6,466
With health insurance coverage	6,358
With private health insurance	5,238
With public coverage	2,142
No health insurance coverage	108
Civilian noninstitutionalized population under 19 years	2,015
No health insurance coverage	10
Civilian noninstitutionalized population 19 to 64 years	3,619
In labor force:	2,902
Employed:	2,781
With health insurance coverage	2,712
With private health insurance	2,592
With public coverage	182
No health insurance coverage	69
Unemployed:	121
With health insurance coverage	121
With private health insurance	113
With public coverage	8
No health insurance coverage	-
Not in labor force:	717
With health insurance coverage	693
With private health insurance	482
With public coverage	365
No health insurance coverage	24
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL (X) = Data not Available	
All families	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
Married couple families	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
Families with female householder, no spouse present	(X)
With related children of the householder under 18 years	(X)
With related children of the householder under 5 years only	(X)
All people	(X)
Under 18 years	(X)
Related children of the householder under 18 years	(X)
Related children of the householder under 5 years	(X)
Related children of the householder 5 to 17 years	(X)
18 years and over	(X)
18 to 64 years	(X)
65 years and over	(X)
People in families	(X)
Unrelated individuals 15 years and over	(X)

TABLE 4:
 2020 American Community Survey 5-year Estimates: U.S. Census Bureau
 Data Profile: Selected Housing Characteristics

	Estimate
HOUSING OCCUPANCY	
Total housing units	2,019
Occupied housing units	1,971
Vacant housing units	48
Homeowner vacancy rate	-
Rental vacancy rate	-
UNITS IN STRUCTURE	
Total housing units	2,019
1-unit, detached	1,917
1-unit, attached	24
2 units	26
3 or 4 units	5
5 to 9 units	-
10 to 19 units	4
20 or more units	-
Mobile home	43
Boat, RV, van, etc.	-
YEAR STRUCTURE BUILT	
Total housing units	2,019
Built 2014 or later	110
Built 2010 to 2013	53
Built 2000 to 2009	264
Built 1990 to 1999	503
Built 1980 to 1989	241
Built 1970 to 1979	445
Built 1960 to 1969	146
Built 1950 to 1959	129
Built 1940 to 1949	39
Built 1939 or earlier	89

ROOMS	
Total housing units	2,019
1 room	-
2 rooms	-
3 rooms	14
4 rooms	272
5 rooms	363
6 rooms	343
7 rooms	270
8 rooms	300
9 rooms or more	457
Median rooms	7
BEDROOMS	
Total housing units	2,019
No bedroom	-
1 bedroom	28
2 bedrooms	327
3 bedrooms	959
4 bedrooms	515
5 or more bedrooms	190
HOUSING TENURE	
Occupied housing units	1,971
Owner-occupied	1,854
Renter-occupied	117
Average household size of owner-occupied unit	3
Average household size of renter-occupied unit	4
YEAR HOUSEHOLDER MOVED INTO UNIT	
Occupied housing units	1,971
Moved in 2019 or later	61
Moved in 2015 to 2018	283
Moved in 2010 to 2014	410
Moved in 2000 to 2009	451
Moved in 1990 to 1999	386
Moved in 1989 and earlier	380
VEHICLES AVAILABLE	
Occupied housing units	1,971
No vehicles available	45
1 vehicle available	321
2 vehicles available	794
3 or more vehicles available	811

HOUSE HEATING FUEL	
Occupied housing units	1,971
Utility gas	1,314
Bottled, tank, or LP gas	355
Electricity	98
Fuel oil, kerosene, etc.	15
Coal or coke	-
Wood	124
Solar energy	-
Other fuel	32
No fuel used	33
SELECTED CHARACTERISTICS	
Occupied housing units	1,971
Lacking complete plumbing facilities	-
Lacking complete kitchen facilities	-
No telephone service available	15
OCCUPANTS PER ROOM	
Occupied housing units	1,971
1.00 or less	1,912
1.01 to 1.50	53
1.51 or more	6
VALUE	
Owner-occupied units	1,854
Less than \$50,000	80
\$50,000 to \$99,999	38
\$100,000 to \$149,999	241
\$150,000 to \$199,999	352
\$200,000 to \$299,999	550
\$300,000 to \$499,999	516
\$500,000 to \$999,999	77
\$1,000,000 or more	-
Median (dollars)	235,300
MORTGAGE STATUS	
Owner-occupied units	1,854
Housing units with a mortgage	1,279
Housing units without a mortgage	575

SELECTED MONTHLY OWNER COSTS (SMOC)	
Housing units with a mortgage	1,279
Less than \$500	37
\$500 to \$999	208
\$1,000 to \$1,499	471
\$1,500 to \$1,999	345
\$2,000 to \$2,499	111
\$2,500 to \$2,999	44
\$3,000 or more	63
Median (dollars)	1,428
Housing units without a mortgage	575
Less than \$250	59
\$250 to \$399	130
\$400 to \$599	266
\$600 to \$799	89
\$800 to \$999	27
\$1,000 or more	4
Median (dollars)	477
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)	
Housing units with a mortgage (excluding units where SMOCAPI cannot be computed)	1,279
Less than 20.0 percent	726
20.0 to 24.9 percent	151
25.0 to 29.9 percent	198
30.0 to 34.9 percent	83
35.0 percent or more	121
Not computed	-
Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed)	562
Less than 10.0 percent	335
10.0 to 14.9 percent	128
15.0 to 19.9 percent	25
20.0 to 24.9 percent	26
25.0 to 29.9 percent	34
30.0 to 34.9 percent	-
35.0 percent or more	14
Not computed	13

GROSS RENT	
Occupied units paying rent	63
Less than \$500	4
\$500 to \$999	30
\$1,000 to \$1,499	29
\$1,500 to \$1,999	-
\$2,000 to \$2,499	-
\$2,500 to \$2,999	-
\$3,000 or more	-
Median (dollars)	964
No rent paid	54
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)	
Occupied units paying rent (excluding units where GRAPI cannot be computed)	63
Less than 15.0 percent	27
15.0 to 19.9 percent	7
20.0 to 24.9 percent	24
25.0 to 29.9 percent	-
30.0 to 34.9 percent	-
35.0 percent or more	5
Not computed	54

TABLE 5:
2020 American Community Survey 5-year Estimates: U.S. Census Bureau
Data Profile: Demographic and Housing Estimates

	Estimate
SEX AND AGE	
Total population	6,466
Male	3,442
Female	3,024
Sex ratio (males per 100 females)	114
Under 5 years	355
5 to 9 years	589
10 to 14 years	790
15 to 19 years	358
20 to 24 years	230
25 to 34 years	708
35 to 44 years	847
45 to 54 years	913
55 to 59 years	440
60 to 64 years	404
65 to 74 years	458
75 to 84 years	323
85 years and over	51
Median age (years)	37
Under 18 years	1,960
16 years and over	4,666
18 years and over	4,506
21 years and over	4,332
62 years and over	1,136
65 years and over	832
18 years and over	4,506
Male	2,344
Female	2,162
Sex ratio (males per 100 females)	108
65 years and over	832
Male	420
Female	412
Sex ratio (males per 100 females)	102

RACE	
Total population	6,466
One race	6,191
Two or more races	275
One race	6,191
White	5,982
Black or African American	21
American Indian and Alaska Native	28
Cherokee tribal grouping	-
Chippewa tribal grouping	-
Navajo tribal grouping	-
Sioux tribal grouping	-
Asian	16
Asian Indian	-
Chinese	16
Filipino	-
Japanese	-
Korean	-
Vietnamese	-
Other Asian	-
Native Hawaiian and Other Pacific Islander	-
Native Hawaiian	-
Chamorro	-
Samoan	-
Other Pacific Islander	-
Some other race	144
Two or more races	275
White and Black or African American	-
White and American Indian and Alaska Native	36
White and Asian	-
Black or African American and American Indian and Alaska Native	-
Race alone or in combination with one or more other races	
Total population	6,466
White	6,257
Black or African American	21
American Indian and Alaska Native	64
Asian	16
Native Hawaiian and Other Pacific Islander	-
Some other race	383

HISPANIC OR LATINO AND RACE	
Total population	6,466
Hispanic or Latino (of any race)	529
Mexican	399
Puerto Rican	35
Cuban	58
Other Hispanic or Latino	37
Not Hispanic or Latino	5,937
White alone	5,670
Black or African American alone	21
American Indian and Alaska Native alone	28
Asian alone	16
Native Hawaiian and Other Pacific Islander alone	-
Some other race alone	-
Two or more races	202
Two races including Some other race	166
Two races excluding Some other race, and Three or more races	36
Total housing units	2,019
CITIZEN, VOTING AGE POPULATION	
Citizen, 18 and over population	4,343
Male	2,221
Female	2,122

Sources:

Table 1: https://www.miottawa.org/Departments/Planning/county_statistics.htm

Table 2: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP02>

Table 3: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP03>

Table 4: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP04>

Table 5: <https://data.census.gov/cedsci/table?g=0600000US2613969000&tid=ACSDP5Y2020.DP05>

Appendix D

Robinson Township Master Plan Update Community Survey 2021 & Robinson Township Master Plan Public Workshops: Results Summary

A summary of the Master Plan Update Community Survey 2021 and the Public Workshops is provided within this Appendix D. The entirety of the results is available at the Township Hall.

Appendix E

Water Supply System Master Plan for Robinson Township

Available within the December 2014 Water Supply System Master Plan is the following:

- Introduction
- Existing Water System
- Water Use Projections
- Proposed Water Supply System
- Procedures for System Extensions
- Figures
 - Figure 1 – Robinson Township Water Plan – Existing Systems
 - Figure 2 – Robinson Township Proposed Land Use Plan
 - Figure 3 – Wells in Robinson Township per Wellogic
 - Figure 4 – Robinson Township Water Master Plan
 - Figure 5 – Robinson Township Water Master Plan – Northeast
 - Figure 6 – Robinson Township Water Master Plan – Southeast
 - Figure 7 – Robinson Township Water Master Plan – Northwest

Appendix F

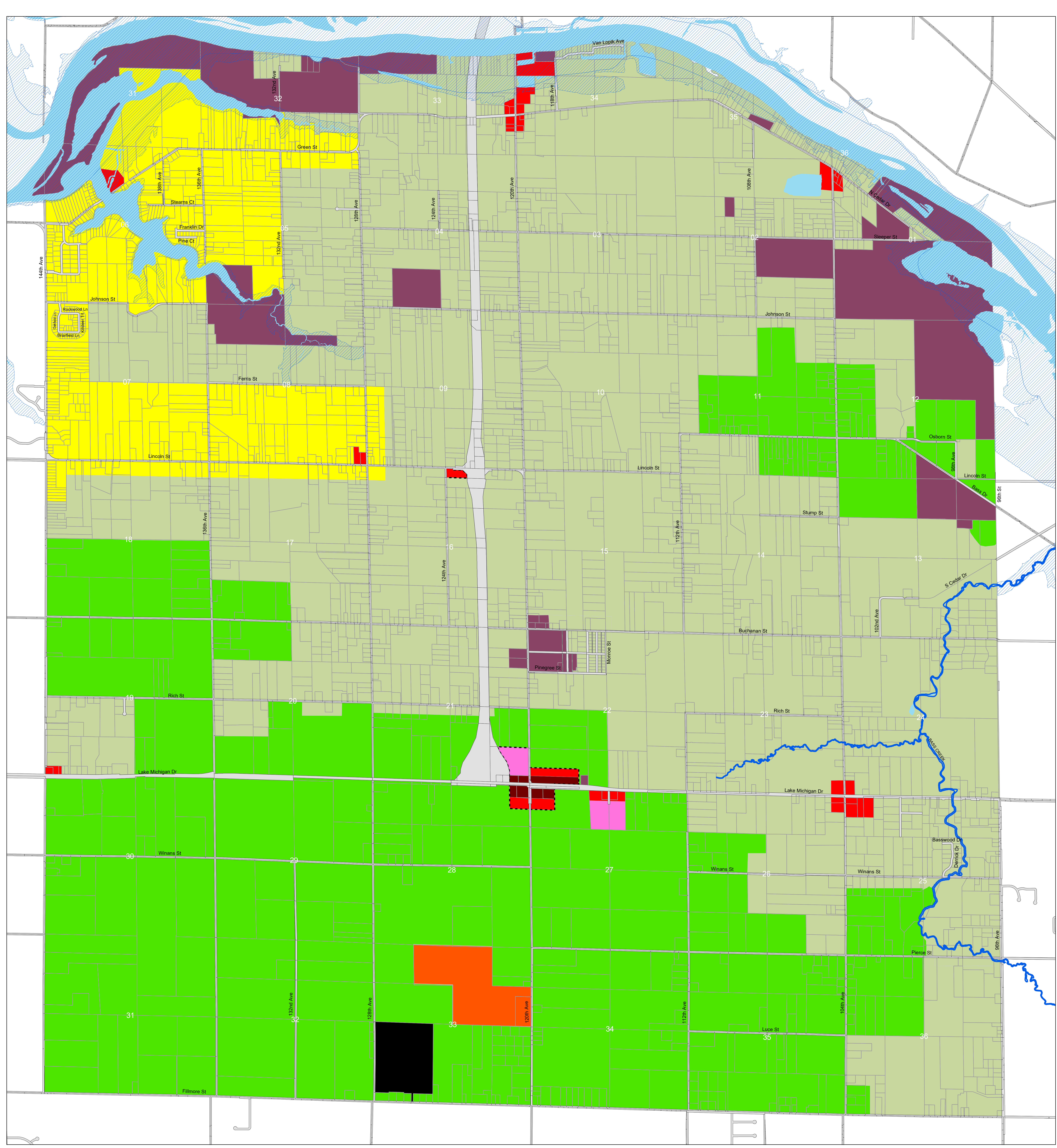
Wastewater Master Plan

Available within the March 2014 Wastewater Master Plan is the following:

- Introduction
- Master Plan
- Service to M-231 & M-45 Interchange
- Service to M-321 & Lincoln Street
- Tables
 - Table 1 – Capacity Analysis
 - Table 2 – Projected Flow Rates
 - Table 3 – Cost Estimate Connect to Ottawa County System at Fillmore Street and 120th Avenue
 - Table 4 – Cost Estimate Service from West Central Ottawa Treatment Plant
 - Table 5 – Cost Estimate Forcemain from M-45 and M-231 to Grand Haven Charter Township Pump Station
 - Table 6 – Cost Estimate Service from Allendale Township
 - Table 7 – Cost Estimate On-Site Septic Tank and Drainfield System
 - Table 8 – Cost Estimate Wastewater Collection and Treatment System/On-site Lagoon System
- Figures
 - Figure 1 – Zoning Map
 - Figure 2 – Wastewater Master Plan
 - Figure 3 – Ottawa County Complex, Flow Schematic

Appendix G

Aquifer Recharge in Robinson Township, Ottawa County – David P. Lusch

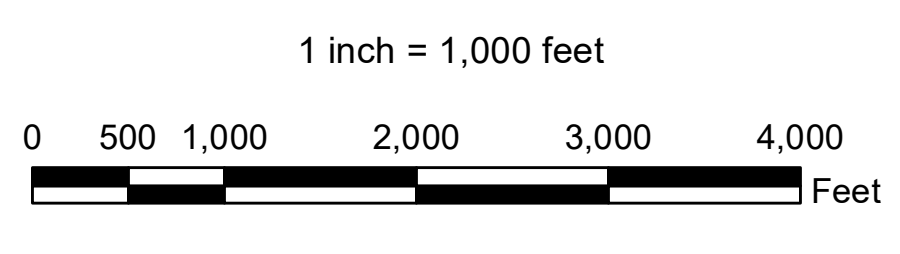


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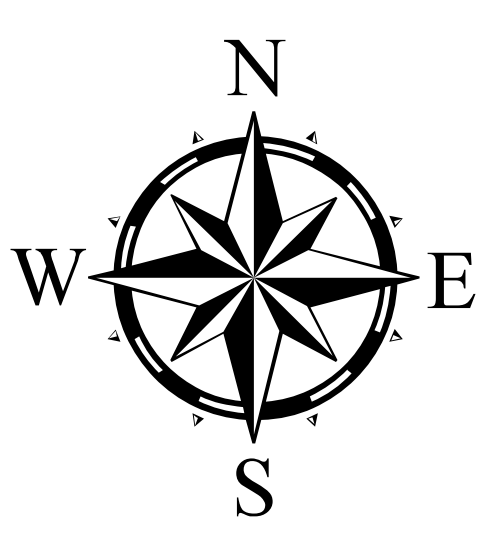
Robinson Township

Master Plan
 T07-08N R16W



Legend

- Growth Area Boundary
- Agricultural (AG)
- Commercial (C)
- Highway Commercial (HC)
- Rural Residential (LDR)
- Residential (MDR)
- Residential (HDR)
- Industrial (I)
- Public (PQP)
- REC, Recreational (REC)
- Mobile Home, MHP
- 100yr Floodplain (2011)








Draft Nov. 1 2022
 Rev. 01/31/2023
 Rev. 03/14/2023






Robinson Township Parks & Recreation Areas Map

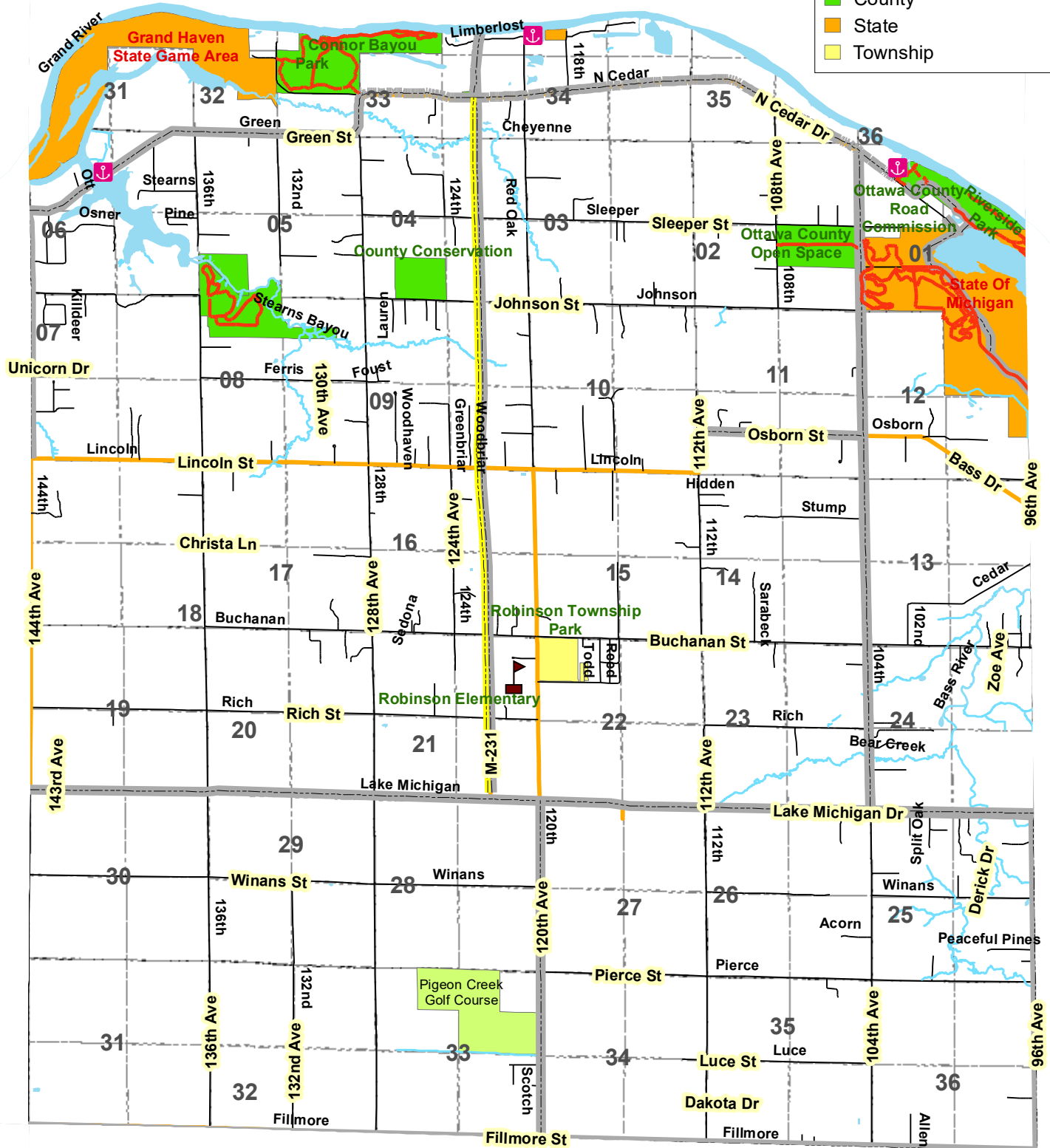
Date April: 2023 T07-08N, R15W

Legend

-  Marinas
-  Spoonville Trail Expansion
-  NonMotorized Pathways
-  Trails
-  Golf Courses

County & Local Parks

-  County
-  State
-  Township



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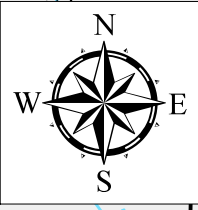
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Robinson Township

Street Map 2023

T07N-08N, R15W



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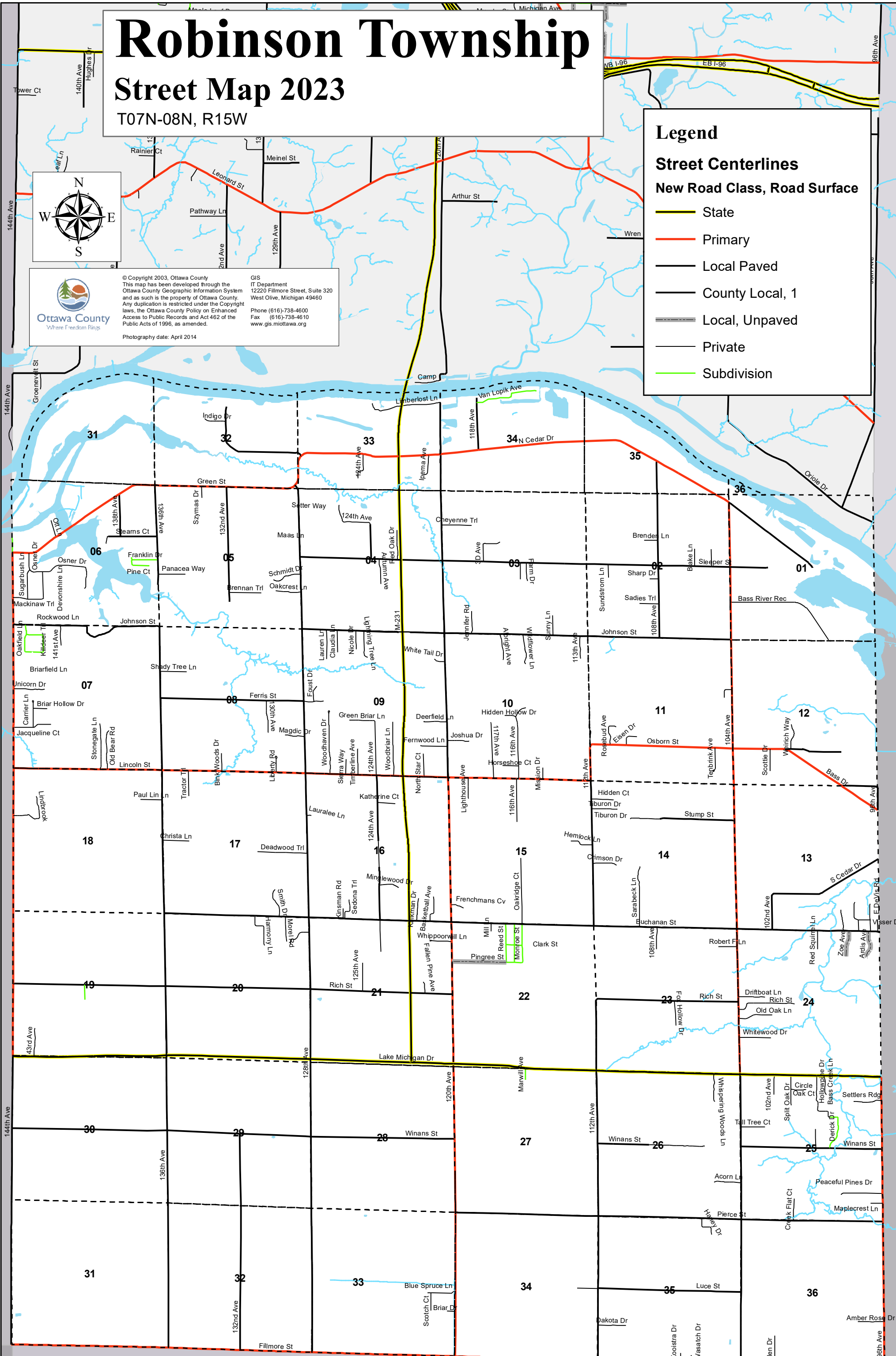
Photography date: April 2014

Legend

Street Centerlines

New Road Class, Road Surface

- State
- Primary
- Local Paved
- County Local, 1
- Local, Unpaved
- Private
- Subdivision



Robinson Township

Hydrology Features Map

T07-08N, R15W

Legend

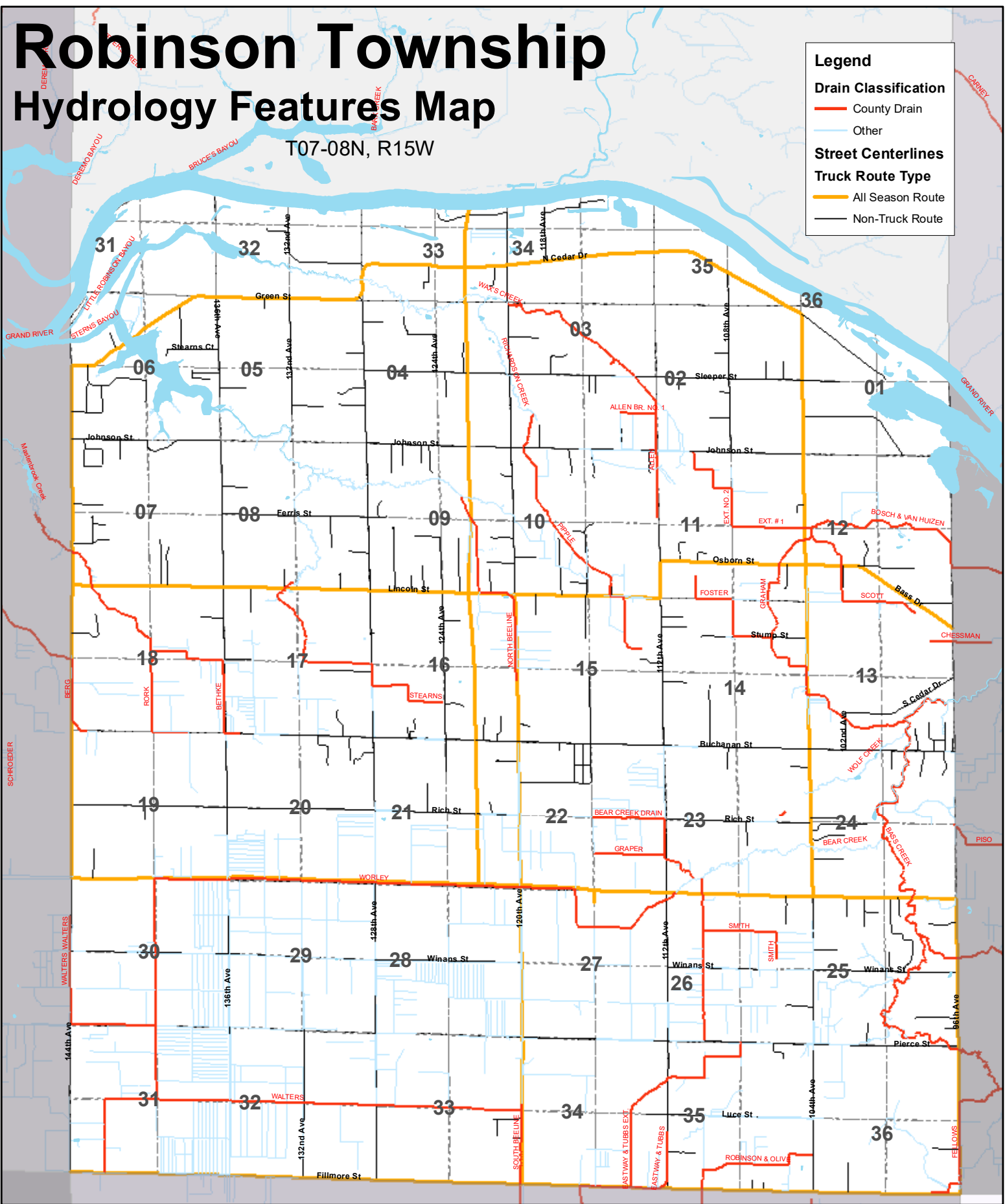
Drain Classification

- County Drain (Red line)
- Other (Blue line)

Street Centerlines

Truck Route Type

- All Season Route (Yellow line)
- Non-Truck Route (Black line)



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