

# Charter Township of Union

Planning Commission  
Special Meeting  
October 24, 2017  
7:00p.m.

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. APPROVAL OF MINUTES
5. CORRESPONDENCE / BOARD REPORTS
6. APPROVAL OF AGENDA
7. PUBLIC COMMENT: Restricted to (3) minutes regarding issues not on this agenda
8. PUBLIC HEARINGS
  - 2017 Charter Township of Union Master Plan Draft.
9. NEW BUSINESS
  - A. 2017 Charter Township of Union Master Plan Draft. *Action: Planning Commission review comments and input. Make changes as needed for adoption at November Planning Commission meeting.*
  - B. SPR 2017-08 Riverwood storage building 1239 E. Broomfield Rd. Owner Richard Figg. *Action: Review and approve site plan.*
10. OTHER BUSINESS
11. EXTENDED PUBLIC COMMENT: Restricted to 5 minutes regarding any issue
12. FINAL BOARD COMMENT
13. ADJOURNMENT

# Charter Township of Union

*2017 Master Plan*

*Draft August 2017*

*Resolution of Adoption*

# ACKNOWLEDGEMENTS

This plan is the result of collaboration between township staff, officials, planning consultants, and the public.

## **Planning Commission**

Philip Squatrito, Chair  
C. Alex Fuller, Secretary  
Dwayne Strachan, Member  
John Zerbe, Member  
Bryan Mielke, Member  
Norman Woerle, Member  
Erik Robinette, Member  
Ryan Buckley, Member  
Denise Webster, Member  
Brandon LaBelle, former Member  
Rick McGuirk, former Member

## **Zoning and Planning Department**

Peter Gallinat, Planner

## **Planning Consultants - LSL Planning**

Kathleen Duffy, Senior Planner  
Josh Penn, Project Planner I



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## **Appendices**

*The following documents are published separately as appendices to this plan:*

- *Community Snapshot Existing Conditions Report*
- *Market Analysis*
- *Public Participation Summary*

## A. What is the Purpose of a Master Plan?

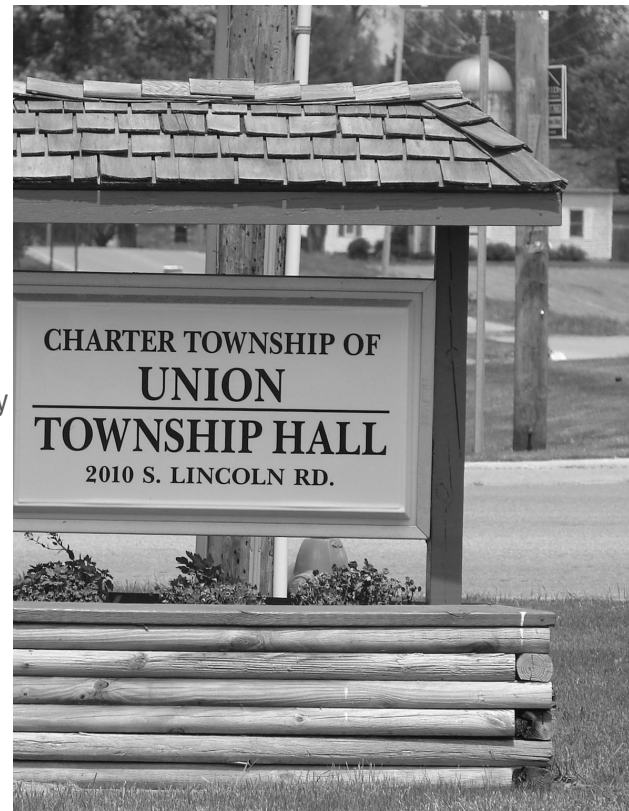
The Master Plan is a policy document created by the Union Township Planning Commission to guide the future growth and development of the township. A sound master plan helps ensure that Union Township remains a highly desirable place to live, work, or visit. This can be accomplished by preserving and enhancing the qualities of the township that the residents, businesses, and property owners consider important. The plan also allows the township to respond to new trends and approaches.

The Master Plan identifies and analyzes the township's physical elements to create a set of goals, objectives, and recommendations to direct decisions regarding future land use, neighborhood and transportation improvements, and special strategies for key areas in the township. Because the plan offers a balance between the interests and rights of private property owners with those of the entire community, it effectively assists township leaders in making substantive, thoughtful decisions for the community while considering long-term implications.

The authority to adopt a new Master Plan or amend an existing Plan is permitted under Michigan law, PA 33 of 2008, as amended. This law authorizes the Planning Commission to prepare and adopt a Master Plan which best promotes health, safety, order, convenience, prosperity and general welfare. The Plan considers efficiency and economy in the process of development; including providing for the following:

- Adequate provisions for traffic
- Healthful and convenient distribution of population
- Good civic design and arrangement
- Wise and efficient expenditure of public funds
- Adequate provisions for public utilities and other public services

Public Act 33 also requires the Planning Commission to review the Plan every five years and determine whether to a) amend the plan, b) adopt a new plan, or c) leave the plan as is. This plan replaces the 2011 plan, updating the goals, strategies, and reorganizing the plan into simpler chapters.



## The Differences between a Master Plan and a Zoning Ordinance

The Master Plan provides a general direction for future development, and while it does not change the zoning map or text applying to any property, one way the plan is implemented may be through zoning ordinance and/or map amendments. A Master Plan is flexible in order to respond to changing conditions and it is not a binding legal document. The Master Plan shows how land is to be used in the future; while the Zoning Ordinance regulates the use of land at a particular point in time. The Zoning Plan (required by state law and included in the Implementation chapter) ties the Master Plan to the zoning ordinance by outlining how future land use categories relate to zoning districts.

Some of the differences between the master plan and the zoning ordinance are listed below.

Master Plan	Zoning Ordinance
Provides general policies, a guide	Provides specific regulations, the law
Describes what should happen in the future – recommended land use for the next 20 years, not necessarily the recommended use for today	Describes what is and what is not allowed today, based on existing conditions
Includes recommendations that involve other agencies and groups	Deals only with development-related issues under Township control
Flexible to respond to changing conditions	Fairly rigid, requires formal amendment to change

### Process Overview

Content from the previous plan serves as a basis for the current plan, with certain sections added or reorganized for clarity. Many of the 2011 plan’s core ideas remain, as do several maps and references to supplementary materials for topics such as non-motorized transportation and access management.

This document includes substantive clarifying updates to the Agricultural Preservation areas in Chapter 2- Growth Management, as well as recommendations from the 2011 Non-Motorized Plan and the 2006 Access Management Plan in Chapter 3. Feedback from the 2016 community-wide survey is also incorporated into the plan.

*New in 2017:*

- *Reorganized document with concise, forward-thinking plan document and separate appendix of existing conditions*
- *Revised goals, objectives, and recommendations*
- *Key implementation examples in each chapter*
- *Updated Future Land Use map*
- *Incorporate recommendations from Access Management / Non-Motorized plans, 2016 survey*

Check out the Township website for a detailed [report](#) of public involvement from June 2016.

*This plan is used by the Township to guide policy related to the following:*

- *Zoning Ordinance*
- *Zoning Map*
- *Reviewing development proposals*
- *Capital Improvements Plans*

### How to use the Master Plan

- Evaluate development proposals against the goals and actions of the Master Plan.
- Review zoning changes for consistency with the plan's future land use map and goals.
- Reference as a basis for zoning ordinance amendments to support plan goals.
- Determine how land is to be developed or redeveloped in the future.
- Identify physical improvements – streetscape and driveways, sidewalks, parks, and public facilities – proposed to achieve the goals and objectives.
- Consider specific design standards for development throughout the Township.

Insert text on Township as fastest growing 7 years in a row- source needed >>

## B. Township Overview

### Regional Context

Union Township is a unique place. It is a traditional six by six square mile township with everything from sleepy rural land on unpaved roads to strip commercial development on five lane streets. It also includes Saginaw Chippewa Indian tribal land, a vibrant public university and the City of Mount Pleasant residing in its core. This combination of governments, communities, land and visions spill their impact and influence into the Township, separated only by the municipal boundary line. This mix and proximity demands a careful and innovative approach to the future with broad based input from residents and neighbors.

### Historical Perspective

The Charter Township of Union traces its history and its name to the Civil War. On March 9, 1861, a month before the first shots of war rang out at Fort Sumter, the founding Board of Supervisors formally established Union Township, leaving no room for ambiguity about where their civil loyalties lay.

In 2011, the Charter Township of Union celebrated its 150th year of existence. Once a beautiful pine and hardwood forest and the winter home of the Chippewa tribe, the area that became Union Township would become the center of lumbering, commerce and a fledgling oil industry in Michigan that became a state in 1837.

The first white settlers came to Union Township in 1854 when pioneer John Hursh and his family arrived in the area. Various settlements in the 36 square miles of the original township have long disappeared or been absorbed by the City of Mount Pleasant that lies in the center of Union Township. Mount Pleasant was designated the county seat in 1860 just a year after Isabella County was established in 1859. Mount Pleasant became a village in 1875 and later a city in 1889.

The history of the city at its core, and Union Township that surrounds it, has been bound together since they were both founded.

### Union Township Today

With 12,927 residents in 2010, Union Township has the largest population of the 16 townships which make up Isabella County. Union also is the only township that experienced a population increase of greater than 1,000 people between 2000 and 2010.

Union's population trend is more similar to its neighbor, the City of Mount Pleasant, than to other Isabella County townships as well as that of the State of Michigan overall.

As shown in the table at right, the population in both Mount Pleasant and Union Township grew steadily in the past decade. The overall population of the State peaked in 2003 and has been on a steady decline since.

Union Township is in

a unique position of population increase, which may be linked to the growth of Central Michigan University, located in the City of Mount Pleasant.

Population Change in Union Twp 2000-2010			
	2000	2010	% Change
Union Township	7,615	12,927	41.1%
Isabella County	63,351	70,311	9.9%
State of Michigan	9,938,444	9,883,640	-0.6%
Source: US Census Bureau			

## C. Local Partners

The following groups, municipalities or entities directly impact the future of Union Charter Township. All of these groups were consulted as part of the 2010 Master Plan process. Continued conversation and partnership with these groups will be vital to successful implementation of the Master Plan.

### *Saginaw Chippewa Tribal Nation*

The Saginaw Chippewa Tribal Nation is a band of Chippewa Indians (or Ojibwe) located in central Michigan. The tribal government offices are located on the Isabella Indian Reservation, near Union Township. There are 2,767 enrolled members of the Saginaw Chippewa Indian Tribe, many who live on the reservation while others live throughout the country. The tribe owns and operates Soaring Eagle Casino in Chippewa Township, and Saganing Eagles Landing Casino in Standish. They also hold land on the Saganing reservation near Standish, with a community center in addition to the recently completed Eagle's Landing casino on the Saganing reservation.

Besides its gaming enterprises, the tribe owns other businesses and community operations including the Sagamok Shell Station, a tribal museum called the Ziibiwing Center, a substance abuse facility, a community clinic and health facilities. The tribe has recently opened a new Elders' Center. Educational programs include an elementary school, as well as a presence in the local public schools through Native American advocates and tutors. The Saginaw Chippewa Tribe is the largest employer in Isabella County and gives more than \$64 million annually to local and state governmental services.

### *Central Michigan University*

Central Michigan University is located in the City of Mount Pleasant but many of its students, faculty and staff live in Union Township. The campus encompasses 872 acres with 94 major buildings. There are seventeen residence halls housing more than 5,000 students and five apartment complexes providing 536 housing units for married and single students, both graduate and undergraduate. Buildings currently in use on campus range in age from Grawn Hall, constructed in 1915, to the Education and Human Services Building opened in the fall of 2009.

Central Michigan University is governed by an eight-member Board of Trustees appointed for eight year terms by the governor of the state of Michigan with the consent of the state senate. The board is empowered with general supervision of the university, control and direction of all the institution's funds, and such other powers and duties as may be prescribed by law.

### *City of Mount Pleasant*

The City of Mount Pleasant was incorporated over 100 years ago and is located in the center of Union Township. It is the county seat of Isabella County. The population of the City of Mount Pleasant has been on the rise since 2000 and is expected to continue to increase.

The City has a council-manager form of government, in which a City Manager is appointed by the City Commission. The Commission is made up of seven nonpartisan members, each elected at-large. The Mayor is a member of the Commission and is selected on an annual basis by his or her colleagues.

### *Union Township Economic Development Authority*

In 2010, the Township board voted to consolidate the oversight of two Downtown Development Authorities, the East DDA and the West DDA into one authority that also now is charged with overseeing economic development activities for





the entire Township, not just the two mostly commercial strips on M-20 on the east and west sides of the community. The new Union Township Economic Development Authority (EDA) is charged with working with the Middle Michigan Development Corporation (MMDC), the regional economic development agency on exploring economic development opportunities. A 2011 economic development plan includes collaborative relationships with the City, County, Saginaw Chippewa Indian Tribe, Central Michigan University and the MMDC.



#### *Mount Pleasant Area Chamber of Commerce*

The mission of the Mount Pleasant Area Chamber of Commerce is to enhance a diversified business environment that fosters a progressive and economically viable community. Established in 1909, the Chamber is the unified voice for the business community, and consistently provides valuable programs, products and services to help strengthen the area economy.



#### *Middle Michigan Development Corporation (MMDC)*

MMDC is the economic development agency for the region, providing confidential assistance to both existing and new industry. The organization has a broad based 64-member Board of Directors, six primary clients, and 30 corporate sponsors.

## **Mid Michigan Community College**

## **Isabella County**

## D. Plan Framework and Goals

Each plan chapter contains an overview of existing conditions, applicable Future Land Use descriptions, and specific goals, as well as recommendations and implementation strategies.

Chapter 2 discusses **Growth Management** and the development pressures occurring in the township.

Chapter 3 addresses **Complete Streets** and highlights areas for non-motorized infrastructure, also drawing on recommendations from the 2006 Access Management Plan.

Chapter 4 includes the Future Land Use map and, addresses **future land use**, housing, commerce and employment, respectively.

The concluding implementation chapter ties the preceding chapters together with the Future Land Use plan and implementation action plan. There, actions are categorized by topic, timeframe, and responsibility. This action plan can serve as an annual checklist to ensure the plan's implementation.

The Plan goals and objectives are summarized below, and revisited in greater detail throughout the following chapters.



*Throughout the plan, goals and objectives are highlighted in light blue.*



*Implementation strategies are highlighted in navy. For a complete list of implementation tools, and timeframes, see Chapter 5.*

### *Plan Goals and Objectives*

*Goal 1: Preserve and protect key natural and agricultural resources.*

- 1.1. Protect significant, sensitive natural amenities such as water bodies, wetlands, mature trees and natural ecosystems.
- 1.2. Coordinate utility expansion in a way that encourages development along existing arterial roadways and on vacant or underutilized sites first.
- 1.3. Preserve areas suitable for farming and agriculture-related uses

*Goal 2: Create a safe, balanced and coordinated multi-modal transportation system adequate to accommodate the ongoing growth and (re)development of Union Township.*

- 2.1. Connect schools, parks and other public facilities with a system of pathways, bikeways and trails
- 2.2. Prioritize sidewalks in areas where there are connectivity gaps first
- 2.3. Work with the Road Commission to incorporate non-motorized facilities into road improvement projects

*Goal 3: Maintain a well-organized, balanced and efficient use of land in the Township.*

- 3.1. Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.
- 3.2. Continue to encourage quality office and commercial development and redevelopment along corridors.
- 3.3. Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.
- 3.4. Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.
- 3.5. Expand housing choices to support multiple options for a wide range of age groups and family types.



## A. Introduction

As one of the fastest growing townships in Michigan, Union Township seeks to balance development pressures and accompanying utility expansion with agricultural and natural resource preservation. The previous plan established three agricultural areas designed to preserve prime farmland from further “leapfrog” development. These areas were identified based on an analysis of environmental conditions to determine prime agricultural areas, existing land uses and zoning, and municipal water and sanitary sewer services. This plan clarifies the previous plan by creating “Primary” and “Secondary” growth areas designed to concentrate future development closer to Mount Pleasant and preserve natural features and agricultural land, as well as provide a basis for future rezonings and utility expansions in a systematic way.



### *Goal 1: Preserve and protect key natural and agricultural resources.*

- 1.1. Protect significant, sensitive natural amenities such as water bodies, wetlands, mature trees and natural ecosystems.
- 1.2. Coordinate utility expansion in a way that encourages development along existing arterial roadways and on vacant or underutilized sites first.
- 1.3. Preserve areas suitable for farming and agriculture-related uses



## B. Natural Resources

The natural environment is a critical element of the physical basis upon which the Township develops. Alteration to natural features should be carefully considered to minimize impacts and insure mitigation where necessary to maintain the natural balance. Not doing so will alter the system and contribute to increased erosion and sedimentation, decreased ground water recharge and increased surface runoff to the Township’s various lakes and streams.

### **Soils**

Construction costs and risks to the environment can be minimized by developing areas with suitable soils. Poor soils present problems such as poor foundation stability and septic limitations. The three major soil characteristics considered in the analysis of soil conditions are drainage, foundation stability and septic suitability.



**Drainage:** Development on poorly drained soils increases development costs, maintenance costs, and will lead to sanitary problems. Development costs are increased due to additional foundation, road and septic preparation. Maintenance costs and problems will be associated with septic field failures, flooded basements and impact to roads from frost action.

**Foundation Stability:** Soil areas that do not provide stable foundations may experience shifting building foundations, cracked walls and cracked pavement and roadways. These problems often result in increased development and maintenance costs or, in extreme cases, structural failure.

**Septic Suitability:** Because there are many areas of Union Township that rely on individual septic systems, the location of septic systems on proper soils is extremely important. Inspection and approval for use of a septic system is under Isabella County's jurisdiction and ultimately their responsibility to maintain high standards of review to prevent system complications or failures. Septic field failures are often the result of poor soil permeability, high water table or excessive slope. Soils such as compacted clays and silts will not allow wastewater to percolate, a high water table prohibits adequate filtering and excessive slope does not provide adequate percolation.

## Wetlands

Wetlands serve a variety of important functions which not only benefit the natural environment but also the community. Some of the primary values which wetlands contribute are as follows:

- Mitigate flooding by detaining surface runoff.
- Control soil erosion and sedimentation loading in rivers and lakes.
- Provide links with groundwater.
- Improve water quality which is degraded by chemicals from fertilizers and pesticides used in agriculture and landscaping/lawn care, as well as stormwater runoff from roads and parking lots
- Function as highly productive ecosystems in terms of wildlife habitat and vegetation.
- Serve a variety of aesthetic and recreational functions.

The largest interconnected series of wetlands are located along the Chippewa River corridor that runs through the western and northeastern portions of the Township.

Future development in areas surrounding these wetlands could significantly impact wetland resources. Therefore, developers and Township officials should evaluate alternative designs to minimize any potential for impact. This is best done by initially considering wetland resources as constraints to development. Minimization of impacts to these resources should take into account the cost of avoidance and the property rights of the individual. If impact is unavoidable, then mitigation should include an analysis of retaining or enhancing the wetland areas to be lost.

Wetland areas are valuable as natural buffers between residential and commercial land uses. They contribute significantly to the aesthetic character of the community. By incorporating wetlands as part of the future development, they will continue to maintain open and green space as well as contribute to retaining the rural setting.

Soils Poorly Suited for Development:

- *Areas with little topographic relief, which does not allow proper drainage.*
- *Areas with excessive slopes which are susceptible to erosion.*
- *Mucks or soils with high organic materials.*
- *Silts and clays.*
- *Areas with high water tables.*
- *Generally along lakes, creeks and wetlands.*

Soils Well Suited for Development:

- *Topographic relief that provides for drainage but not excessively steep.*
- *Loamy and sandy soils.*
- *Areas sufficiently above groundwater table.*

*Objective 1.1.  
Protect significant,  
sensitive natural  
amenities such as  
water bodies, wetlands,  
mature trees and natural  
ecosystems.*



A complete documentation of existing conditions and natural features maps are included in the Appendix.



The term *leapfrogging* refers to the development of lands in a manner that requires the extension of public facilities.



*Objective 1.2.  
Coordinate utility  
expansion in a  
way that encourages  
development along existing  
arterial roadways and on  
vacant or underutilized sites  
first.*



## Drainage

Upland areas drain to the low lying wetlands, lakes and streams that pass through the Township. Soil permeability of most upland areas is moderate to moderately rapid. As these areas become developed, the amount of water infiltrating the surface will decrease and the surface runoff will increase. This will be caused by clearing of natural vegetation, addition of impervious material to the land (buildings and pavement) and installation of storm drains. These will have the cumulative effect of increasing the peak discharge to the area's drains, streams and lakes while reducing the amount of water infiltrating to ground water. Minimization of these impacts may involve protecting native vegetation, on-site stormwater retention and clustered development.

## Prime Farmland

The Township has adopted priority development areas to ensure the preservation of active farmland. The Township is a fast growing community, so these proactive measures are designed to prevent further damage caused by sprawl into active farm land. Instead, it is more valuable to establish rules for orderly development that will avoid future leapfrogging and further fragmentation. It is a goal of this plan that any new residential development be placed adjacent to existing residential or commercial development, be served by existing utilities and be located on a paved road.

## C. Township Utilities

In order to protect the health and safety of the residents and environment in Union Township, utilities should be carefully planned and financed. In doing so, future development should be linked to the capacity of systems and existing or planned locations of pipes.

The capacity of municipal infrastructure impacts the development potential of different land uses. Industrial development needs high pressure water. Residential dwelling units on less than an acre usually must be serviced by a municipal waste water system, since septic fields require an acre or more of land. Commercial uses tend to locate where municipal services are available either out of necessity or cost.

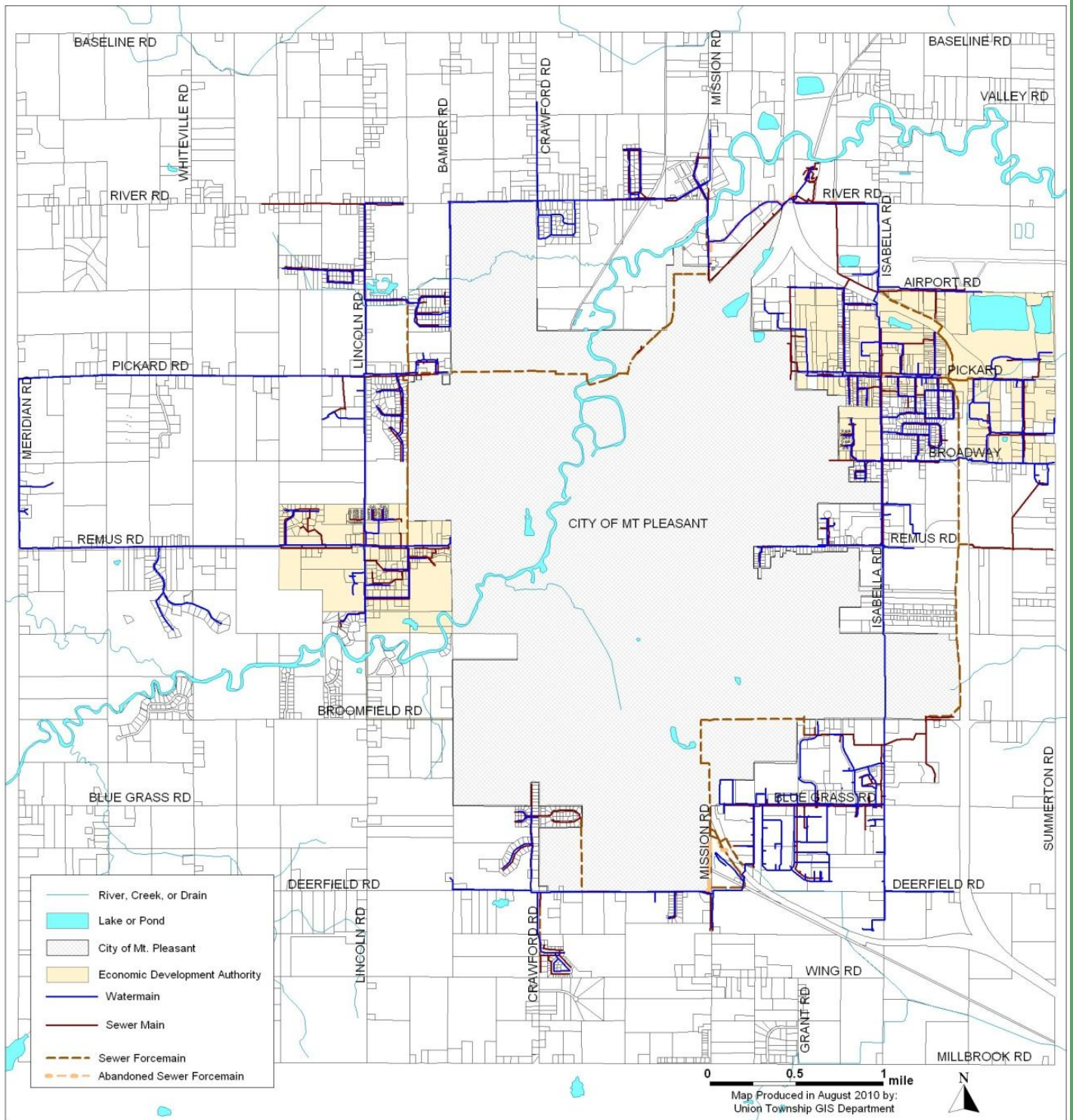
The Township provides water and sewer utilities to significant portions of the Township abutting Mount Pleasant; the Township's wastewater service area essentially rings the city. While some of the Township's sewer force mains travel through the city limits, they do not share any connections with Mount Pleasant's system. In many cases, the pipes run parallel but do not connect.

In 2014, the Township's water service loop was completed, connecting the previously separate north and south side water systems. The water main installed along Broomfield and Lincoln Roads brings the possibility for expanded capacity in that area, but the area is not yet served by sanitary sewer. Future service needs should be evaluated to provide expansion efficiently and equitably across the community.

## Future Utility Planning

Based on these circumstances, the opportunities for collaboration between the Township, City and Tribe are many:

- The Township or Tribe could purchase additional capacity from the City instead of expanding or creating new systems
- The Township could expand its water system as planned and sell additional capacity to the Tribe
- Future utility delivery should be a topic for discussion between the Township, City, Tribe and CMU.



## Utility Map

Request GIS Dept. to update this map for us



*Objective 1.3.  
Preserve areas  
suitable for farming  
and agriculture-related uses*



*The previous plan identified agricultural growth areas based on the County's prioritization criteria. This plan builds on these recommendations with updates to Future Land Use to provide a policy framework for future development, rezonings and utility expansions to support it. See the appendix for more information.*

### **Growth Boundary: Primary Growth Area**

- Served by municipal utilities
- Located on a paved road

### **Rural Buffer: Secondary Growth Area**

- Future development limited by adjacency to utilities and paved roads
- Intended for development after Primary Growth Area is fully developed

### **Rural Preservation: Prime Farmland**

- No municipal utilities
- Unpaved roads
- Do not permit development
- Only agricultural and large lot, rural residential

## **D. Growth Management Boundary**

The residents of Union Township have consistently said that preserving the natural beauty and agricultural character of the Township and controlling urban sprawl are important priorities for planning the community. The Township also desires to be able to provide efficient infrastructure services to support development. One of the most effective ways to meet both of these goals is with a growth boundary. The growth boundary concept in the plan is designed to encourage the following:

- Compact, efficient land use,
- Protection of farmland and natural areas,
- Efficient provision of utilities, services and infrastructure,
- An efficient transportation system,
- Locations for economic growth, and
- Diverse housing options.

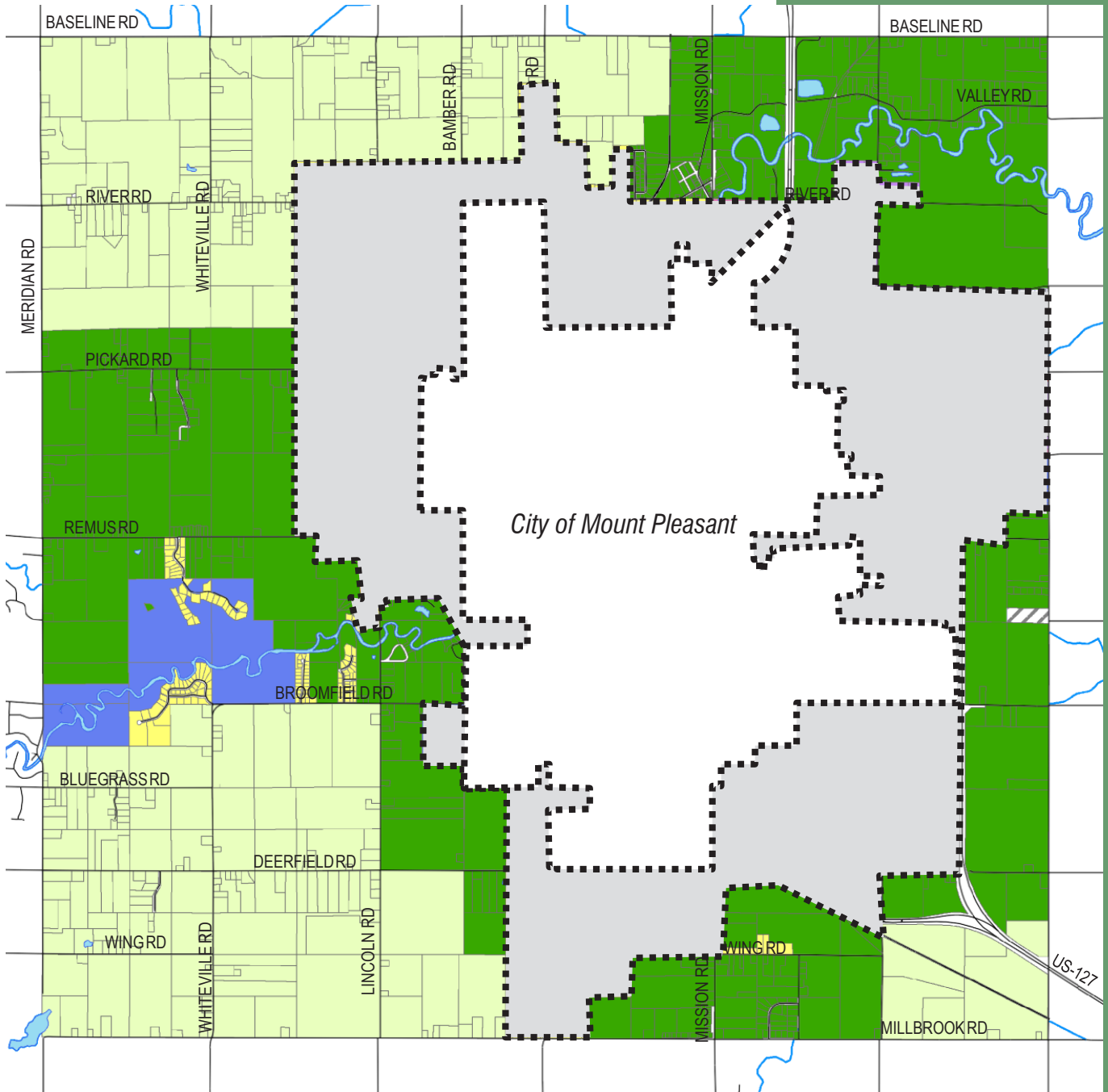
The growth boundary marks the separation between rural and urban areas and defines land that can efficiently support urban services such as sewer, water and roads. Priority growth areas are adjacent to existing development, are served by municipal utilities, and are located along paved roads. These areas are predominantly adjacent to Mount Pleasant.

Development outside the boundary is not prohibited; however, because public utilities are not available in these areas, development needs to be maintained at a relatively low intensity and the character of development needs to not adversely impact natural features and agricultural uses.

There is presently vacant or underutilized land within the growth boundary that can be served by public water and sewer. By focusing new development in these areas first, the Township and the County can more efficiently provide the necessary infrastructure to support new growth.

The growth boundary is not intended to be static, but should be evaluated on a regular basis along with other updates to the Master Plan. With each update, the following criteria should be taken into consideration for amending the growth boundary:

- Amount and capacity of undeveloped or under-developed land currently within the growth boundary, which should be used to satisfy the demand for development prior to expanding the boundary.
- Projected population growth within the Township and demand for future development.
- The ability to extend public water and sewer to serve new land areas outside of the growth boundary.
- The capacity and condition of the road system to support the new growth areas.
- The ability of the Township, County and other public agencies to provide necessary services to the new growth areas and the additional resulting population.
- The impact of higher density development from expanding the growth boundary will have on natural features, agricultural uses and rural character.
- Consistency with the goals and objectives of the Master Plan.



Land outside the growth boundary is separated into two distinct Future Land Use categories:

### Rural Preservation

Rural Preservation Areas outside of the growth boundary should be maintained at a low intensity rural character of development that will not adversely impact natural features and agricultural uses. Agriculture should be promoted and future rezoning requests for residential should be prohibited to prevent leapfrog development.

### Rural Buffer

Rural Buffer areas do not have sewer and water, but are appropriate for agriculture uses and some infill with low density residential. Typically located on the fringe between rural and more urbanized areas, future rezoning in this district should be limited for more intensive uses, especially those requiring extended utility service.

## Growth Boundary Map



Sources: Union Township, MCGI

 Growth Boundary

See also the Future Land Use Map in Chapter 4

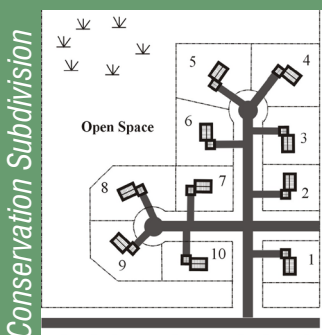
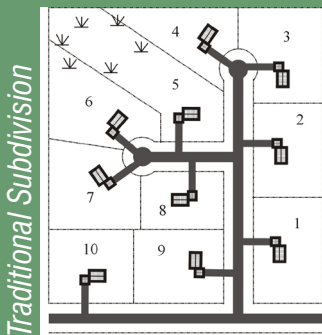
## Best “Green Development” Management Practices

- Reduces stormwater runoff volume and improves stormwater quality.
- Protects community character/aesthetics.
- Reduces salt usage and snow removal on paved surfaces.
- Improves urban wildlife and habitat opportunities.
- Provides additional stormwater capacity for nonconforming sites without modern detention facilities.



Roadside stormwater drains reduce the effects of heavy rainfalls and flooding throughout the Township, and should be protected from encroaching agricultural activities.

## Conservation Subdivisions



## Recreation / Institutional

This category is designated primarily for large-scale recreation, natural features and open space.

## Tribal Trust Lands

These areas are under the jurisdiction of the Saginaw Chippewa Indian Tribe.

## E. Best Practices

### Low Impact Design

A more environmentally responsive strategy used to manage stormwater collection and disposal involving both private development sites and municipal projects is through the use of Low Impact Development (LID) methods. LID is an alternative approach to development aimed at conserving natural resources and protecting the environment by strategically managing rainfall close to its source, minimizing impervious coverage, using native plant species, and conserving and restoring natural areas during site development or redevelopment. Design techniques are focused on the use of applications that are modeled after nature, rather than building costly infrastructure and water quality restoration systems.

While low impact design is encouraged wherever it can be applied, it is specifically warranted in areas where vegetation may be installed in lieu of impervious surfaces (i.e. pavement). It can be applied to open spaces, rooftops, streetscapes, parking lots, sidewalks, and medians. In many cases, these beneficial design alternatives offer a significant long-term cost savings, even when factoring in some additional maintenance costs. Design options to consider include use of rain gardens, native plant species, street trees (i.e. planter boxes, tree pits), bioswales and pervious pavement.



Example: Native species bioswale



### Conservation Subdivisions

In order to maximize open space preservation, one technique for new housing subdivisions is to promote cluster development in conservations subdivisions. This form of open space development incorporates smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space, and promote watershed protection.

Conservation subdivisions begin by defining sensitive areas of the property (farmland, ponds, steep slopes, wetlands, wooded areas, etc.) that should be preserved, then clustering building sites on the remaining, more suitable, land. While lot sizes are reduced, the overall permitted density is not increased but the environmentally sensitive areas are protected and preserved. This reduces development costs in two ways: It avoids expensive mitigation and grading of the more challenging features on the site and reduces the length of streets and utilities needed to serve the individual lots. The resulting open space not only

adds to the character and livability of the development, but actually increases property values.

## Large Lot Zoning

This zoning tool may be useful in preserving land for agricultural use. It is important to understand that large lot zoning, by itself, does not preserve farming; only the farmer can do that. Rather, this technique is intended to permit larger blocks of land to be set aside for farm use. This technique simply increases the lot size required in residential zoning districts where farming operations exist. Lot sizes are generally greater than 10 acres, depending on the objective (farmland preservation vs. rural character). In areas where farmland preservation is a primary focus, lot sizes of 40 to 160 acres with only one residence is found to be most effective, however this would not be practical in Union Township. Union Township currently has a 1-acre minimum lot size in its Agricultural district. This may be somewhat effective in curtailing non-farm development in these areas and directing growth to the northern portion of the Township, but should be used in combination with density based zoning such as the quarter/quarter zoning described above or PUD to preserve larger tracks of land for farming.

## Growth Management Implementation Strategies



- *Ensure coordination between Public Works and Planning Departments so Township utilities are expanded in a logical, efficient manner.*
- *Limit sewer and water extensions to areas not designated for agricultural preservation.*
- *Create a cluster housing option in the Zoning Ordinance to promote smaller single-family lots and shared open space.*
- *Ensure that lot sizes in Agricultural zoning districts are large enough (5 or 10 acres) to prevent fragmentation of identified priority agricultural areas*
- *Revise Ag district to limit future subdivision for single-family homes*
- *Prepare and annually update six-year capital improvements plan that coordinates with the master plan*
- *Support accessibility to local food*
- *Expand recycling facilities to accommodate recycling for businesses and multi-family uses*
- *Update screening requirements to allow rain gardens, bioswales, bioretention areas and filter strips*
- *Revise parking regulations to include allowances for pervious surfaces in parking and loading areas.*
- *Implement parks improvements from the Parks and Recreation Plan*
- *Encourage the use of cluster development, vegetated swales, downspout disconnection and other practices that reduce impervious surfaces and increase storm water infiltration.*
- *Promote Low-Impact Design (LID) to reduce the level of stormwater runoff*
- *Implement community programs that promote best practices for improving*
- *Promote education of proper septic drainfield maintenance to increase lifespans of systems and preserve water quality*
- *Require more frequent septic systems inspections*
- *Require vegetated buffers from all wetlands, streams, lakes and rivers to protect water quality.*

For a complete listing of implementation strategies, tools, and timeframes, see Chapter 5: Implementation



# 3. TRANSPORTATION

## A. Introduction

Changes in land use impact travel patterns and road capacity. Because the quality of the transportation system impacts the development pattern, ideally the land use and transportation systems are planned together. This can be a challenge in Union Township where most roads are under jurisdiction of the Isabella County Road Commission. This plan sets forth goals and actions to encourage a coordinated approach with consideration of various travel needs (auto, freight, pedestrians, bicyclists and transit users).



## B. Complete Streets

Planning the township transportation system involves more than just moving vehicles efficiently and safely. A transportation system needs to meet the needs of all types of users – motorists, pedestrians, bicyclists, and transit users. In some cases, this can be accomplished with lower vehicle speeds to be more supportive of bicycles and pedestrians, while in other places, wider vehicle lanes and higher speeds may be needed for vehicle and goods movement. The design of the transportation system also needs to reflect the context of adjacent land uses. Nationally, this approach is often referred to as “complete streets”, harmonizing streets with their surroundings while interlacing transportation networks to meet the mobility needs of all users.

### Sidewalks and Pathways

Sidewalks have many benefits. When sidewalks exist, people walk more frequently which contributes to public health and neighborhood cohesion. In addition, sidewalks provide an alternative mode of transportation. Recent studies have also demonstrated that subdivisions with sidewalks tend to better sustain higher property values. Connections between neighborhoods and nearby activity nodes like schools, parks and commercial nodes also contribute to the township’s quality of life. The Non-Motorized Transportation map illustrates the location of existing sidewalks. While many areas of the community have a complete sidewalk network, there are many developed areas that lack a complete sidewalk network or lack sidewalks in general. As new development and redevelopment occurs, opportunities to construct sidewalks should be pursued,

***Goal 2: Create a safe, balanced and coordinated multi-modal transportation system adequate to accommodate the ongoing growth and (re)development of Union Township.***



- 2.1. Connect schools, parks and other public facilities with a system of pathways, bikeways and trails
- 2.2. Prioritize sidewalks in areas where there are connectivity gaps first
- 2.3. Work with the Road Commission to incorporate non-motorized facilities into road improvement projects



especially in close proximity to schools, parks and activity nodes and along major thoroughfares as indicated on the Non-Motorized Transportation map.

The Township defines pathways (separate from sidewalks) and their use as follows: An off-road shared use, non-motorized path, usually asphalt, separate from the public road (though sometimes in the public right-of-way). All cyclists regardless of age are encouraged to use pathways. The Sidewalks and Pathways Ordinance establishes policies for the installation of sidewalks; the Township also established a Sidewalks and Pathways Planning Committee to establish priorities for sidewalk construction in the Township.

CMU has a system of existing and proposed bike paths that should be considered in any Township non-motorized transportation planning effort. Although these paths are internal to or on the periphery of campus, they are relevant to the Township because students rely on them to get to from the apartment complexes and classes via Broomfield Road.

## Crossing Improvements

The design of crosswalks is critical to ensure proper safety for pedestrians and vehicles. Safety hazards exist whenever pedestrians or bicyclists intersect with individual driveways, or where they meet at an intersection.

Several crosswalks have been improved throughout the township but many more need improvements to improve safety for users. Union Township should work with the Road Commission to improve crosswalks considering the following:

- Use pavement markings to clearly indicate where pedestrian activity will occur; vehicles must not be allowed to block these areas. Colored or decorative pavement treatments will bring greater visibility to crossings.
- Maintain clear vision zones at intersections to increase visibility.
- Provide adequate lighting at intersections so pedestrians are safe at all hours.
- Include overhead flashers to indicate non-signalized crossing points. Mid-block crossings can be further enhanced by using pavement markings or texture and signage at the motorists' eye level.
- Consider restricting right turns on red at high volume intersections, as most motorists fail to consider the pedestrian when turning.
- Include medians in the design of intersections, especially where a high volume of pedestrian activity is expected. Medians provide safer crosswalk options and refuges for pedestrians.
- Mid-block crossings should include pedestrian refuge islands.
- Decrease street width at crossing points by installing sidewalk flares and curb extensions, medians or raised islands to create a safe haven for pedestrians and bikers.

## Resident Survey Highlights: Complete Streets

- 19.8 percent of residents surveyed in 2016 ranked "Pathways linking residence to parks" as their top suggestion for enhancing Township parks
- One third of those surveyed indicated "more sidewalks" should be a high priority for the township's General Fund
- 65% of residents indicated support for a special assessment for additional sidewalks and pathways in the township

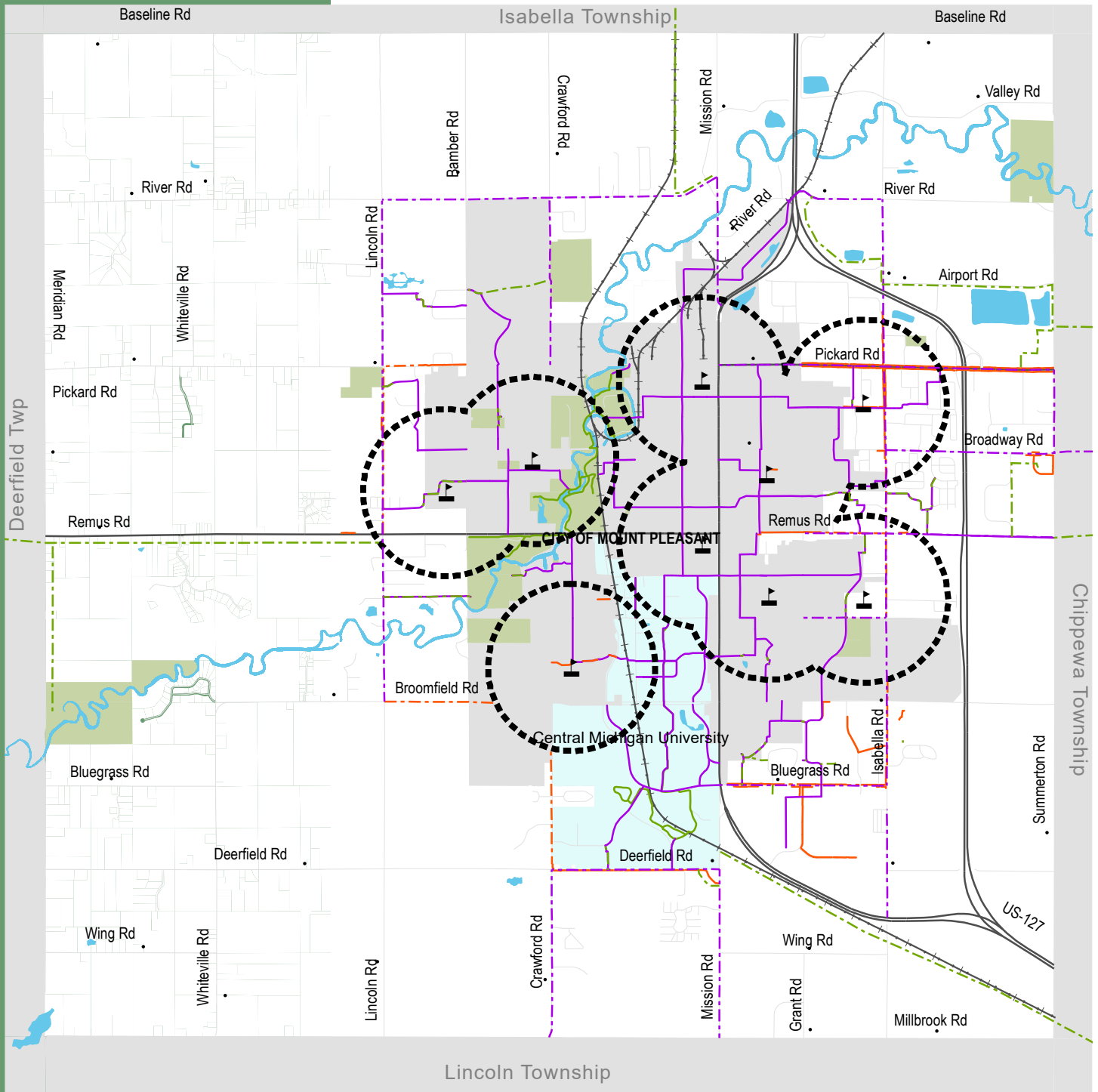
## Benefits of Complete Streets:

- Provides connections between homes, schools, parks, public transportation, offices, and retail destinations.
- Improves pedestrian and cyclist safety by reducing potential crashes between motorized and non-motorized users.
- Encourages walking and bicycling that improves health and fitness.
- Provides options to make fewer driving trips, saving money.
- Research demonstrates pedestrian and bike-friendly cities have more economic vitality.

Objective 2.1.  
Connect schools,  
parks and other public  
facilities with a system of  
pathways, bikeways and  
trails






pavement treatments, signs, and overhead lights can help better delineate pedestrian crossings



## Non-Motorized Transportation

0 0.25 0.5  
Sources: MCGI, Union Township, The Greenways Collaborative, LSL Planning



-  Schools
-  Parks
-  Safe Routes to School 1/2 mile walk zone

	Existing	Proposed
Sidewalks		
Bike Routes		
Trails		

### *Transit*

Public transit is well supported and used in the Township. While it is primarily geared toward the student population, it is recognized as being forward-thinking and willing to adapt to local needs. The Isabela County Transportation Commission (ICTC) provides demand-response transit services to Union Township and the surrounding areas. The ICTC provides dial-a-ride service to the entire county, with additional service to Clare, Remus, and Oil City. They also provide a fixed-route campus shuttle between the CMU campus and the several large apartment complexes and shopping areas in the Township.

*Objective 2.3.  
Work with the Road  
Commission to  
incorporate non-motorized  
facilities into road improvement  
projects*



## **Complete Streets Implementation Strategies**



- *Adopt a resolution in support of Complete Streets.*
- *Update the inventory of sidewalks and bike lanes from the 2011 nonmotorized plan.*
- *Complete the planned pedestrian sidewalk and pathway system, especially to fill in gaps and connect neighborhoods with destinations like schools, parks, neighborhood shopping and entertainment districts, and cultural institutions.*
- *Support public education that promotes the personal and environmental benefits of active lifestyles.*
- *Work with Isabella County Transportation Commission towards increasing sidewalk connectivity within 1/4 mile of all existing and planned bus stops in the Township.*
- *Use the Site Design Checklist provided in the 2011 Non-Motorized Plan as a model framework during site plan review, and provide copies of the list to developers to use as a reference guide*
- *Encourage the Road Commission to support the creation of “Complete Streets” that consider the needs of vehicles, bicyclists, and pedestrians equally*
- *Re-engage the Pathways Committee; encourage regular meetings to prioritize improvements to the existing sidewalk and pathways network.*
- *Work with organizations and advocacy groups such as bike users, seniors, and schools to develop Safe Routes to School programs and trail organizations to identify priority needs for walking and biking.*
- *Pursue local, state and federal funding to continue implementation of a non-motorized transportation system, both in the right-of-way and off-road trails / pathways*
- *Acquire easements where feasible for non-motorized facilities in areas where right-of-way is insufficient*
- *Require bike racks for certain new, non-single family developments and promote installation of bike racks at key locations.*
- *Require non-motorized connections between sidewalks and business entrances, transit stops, and neighborhoods*
- *Require easements during site plan review where right-of-way is insufficient to provide non-motorized facilities*
- *Amend sidewalk ordinance to remove waivers for sidewalks in commercial districts*

See maps from the 2006 Access Management plan and learn more about these recommendations in the Appendix.

## Basic Principles of Access Management

Six basic principles are used to achieve the benefits of access management:

- Limit the number of conflict points,
- Separate conflict points,
- Separate turning volumes from through movements,
- Locate traffic signals to facilitate traffic movement,
- Maintain a hierarchy of roadways by function, and
- Limit direct access on higher speed roads.

Source: MDOT

The 2006 Access Management Plan focused on M-20 and US-127 BR. These recommendations can also be applied to other corridors in Union Township where appropriate.

## C. Access Management

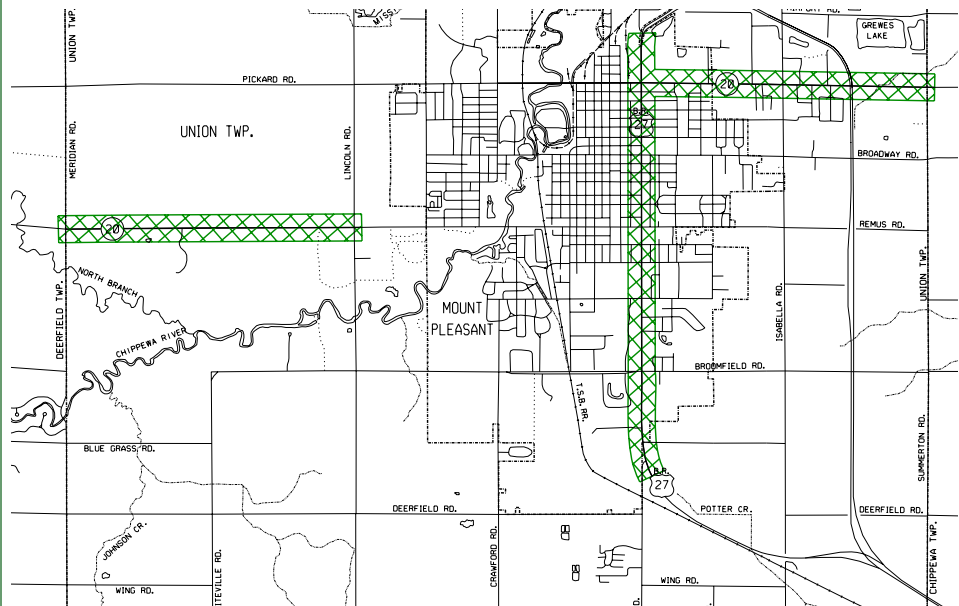
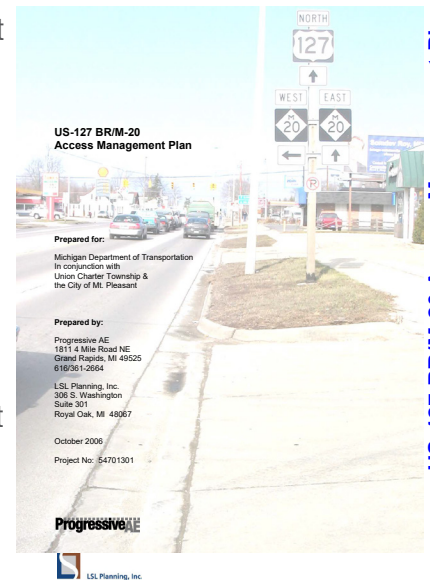
The purpose of the 2006 Access Management Plan for the US-127/ M-20 corridors was to improve traffic operations and reduce crash potential along key corridors in the township, while retaining reasonable access to existing and future developments. This plan outlines recommendations for US 127 BR, M-20/ Pickard Rd., and M-20/Remus Rd. developed in conjunction with MDOT and the City of Mount Pleasant. A draft overlay zoning district was also developed in 2006 to implement the recommendations of this access management plan. This overlay has not yet been adopted, however. The zoning amendments as well as the approval process for development review and MDOT approval recommended in the plan should be adopted to ensure a safe and efficient state trunkline.

In addition, these principles should be applied to other commercial corridors, like Bluegrass and Isabella Roads, to promote safety and efficiency.

### Access Management Recommendations

While it may not be possible to retrofit certain corridor sections to meet current spacing guidelines for new driveways, the goal is still to minimize the number of driveways as much as possible.

- Establish future right-of-way needs (widths) for corridors, including:
  - » Allow for variations in road location, based on existing development and natural elements which the Township may wish to preserve
  - » Accommodate drainage needs and topographical changes
  - » Accommodate operational features such as turn lanes at intersections and potential transit facilities, and
  - » Flexibility in road design to allow for bike lanes, sidewalks, buffer strips between the curb and sidewalk, etc.





- Increase minimum lot frontage along corridors.
- Adjust front yard setback requirements.
- Adopt access-related recommendations from the plan as amendments to the Zoning Ordinance.

Many of the recommended retrofit improvements in the plan will only become implementable when an owner or developer approaches the township, Mount Pleasant, or MDOT during an approval process. However, alternative funding strategies may increase the feasibility of many projects. For example, funding may be included as part of a street reconstruction project for those who volunteer to have their access modified per the Master Plan. In some cases, entities such as a downtown development authority have offered to pay between half- and full-cost for those who volunteered.

Other creative funding strategies include offering to waive permit fees in exchange for a closed, changed or shared access. Additionally, some communities have offered to provide trees or other right-of-way improvements where access is eliminated.

#### *Pickard Road (retrofit)*

The high number of vehicle trips, existing access points and abundant signage along this corridor underscores the critical importance of implementing access management recommendations geared towards retrofit access.

#### *M-20/Remus Road (future access)*

The 2006 plan indicates that poor driveway spacing and poor driveway offsets are the primary access-related deficiencies along this corridor. Development pressures along M-20 near Lincoln Road underscore the importance for ongoing collaboration with the Isabella County Road Commission and MDOT.

See [page xx](#) in the commercial section for more on development near this corridor.



### **Access Management Implementation Strategies**

- *Implement recommendations from the 2006 Access Management Plan for Pickard and Remus Roads during site plan review*
- *Require cross access and shared access for driveways in commercial districts.*
- *Require transportation impact studies during development review to ensure walking, biking and transit facilities are as safe, convenient and comfortable as road facilities.*
- *Create specific access management recommendations for Bluegrass Center.*



For a complete listing of implementation strategies, tools, and timeframes, see Chapter 5 Implementation

### **Priority Application: Bluegrass Center**

As one of the prime developing areas of the township, Bluegrass Center will need careful consideration of both access management and improved pedestrian connections between businesses and residences. While not a part of the M-20 Access Management Plan, this area can benefit from similar recommendations in terms of shared access, cross access easements, reducing turn conflicts, and service drives.

Bluegrass Road, envisioned to be a town center, should be retrofitted to minimize the number of driveways, include multi-use pathways on both sides of the street, and ensure safe pedestrian crossings at intersections. Cross access between sites should be required and future plans for a road network should be developed. Careful consideration for access management should also be considered with adjacent Mount Pleasant along Broomfield Road and across developments on either side of the border. (See the Bluegrass Center Concept Plan on [page xx](#)).

Worn pathways in the grass and a wheelchair in the center turn lane are clear evidence pathways are needed along Bluegrass Road.

## A. Introduction

The Future Land Use Plan for the township is a guide to assist officials in decisions relating to day-to-day planning, zoning, land subdivision, and public improvement issues. From time to time, the Plan should be reviewed and revised as necessary to respond to changing needs of the community.

New land use and community character challenges arise as Union Township continues

to grow: competition for desirable land uses from surrounding communities will increase; redevelopment of aging sites will increase in importance; management of traffic on the existing roadway network will continue to be a priority; and balancing expanding the public infrastructure system while maintaining the current system. As a result, the development strategy has shifted towards focusing on vacant or underutilized property to provide for quality redevelopment first before continuing to expand into greenfield sites.

The Future Land Use Plan is a representation of general physical features and land use activities in the township when fully developed and does not imply that all of the changes will or should occur in the near term. Development and redevelopment will proceed in a manner consistent with policies on the environment, transportation and infrastructure capacity, and other matters which help determine the appropriate timeframe.

Zoning decisions should also produce changes that, over time, gradually establish greater conformity between the Zoning Map and the Future Land Use Plan. The Future Land Use Map should be carefully considered to ensure consistency is maintained when making decisions on planning and development matters; community changes which directly conflict with the Future Land Use Map could undermine the long-term objectives of the township and should be avoided.



### ***Goal 3: Maintain a well-organized, balanced and efficient use of land in the Township.***



- 3.1. Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.
- 3.2. Expand housing choices to support multiple options for a wide range of age groups and family types.
- 3.3. Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.
- 3.4. Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.
- 3.5. Continue to encourage quality office and commercial development and redevelopment along corridors.

## B. Factors Considered

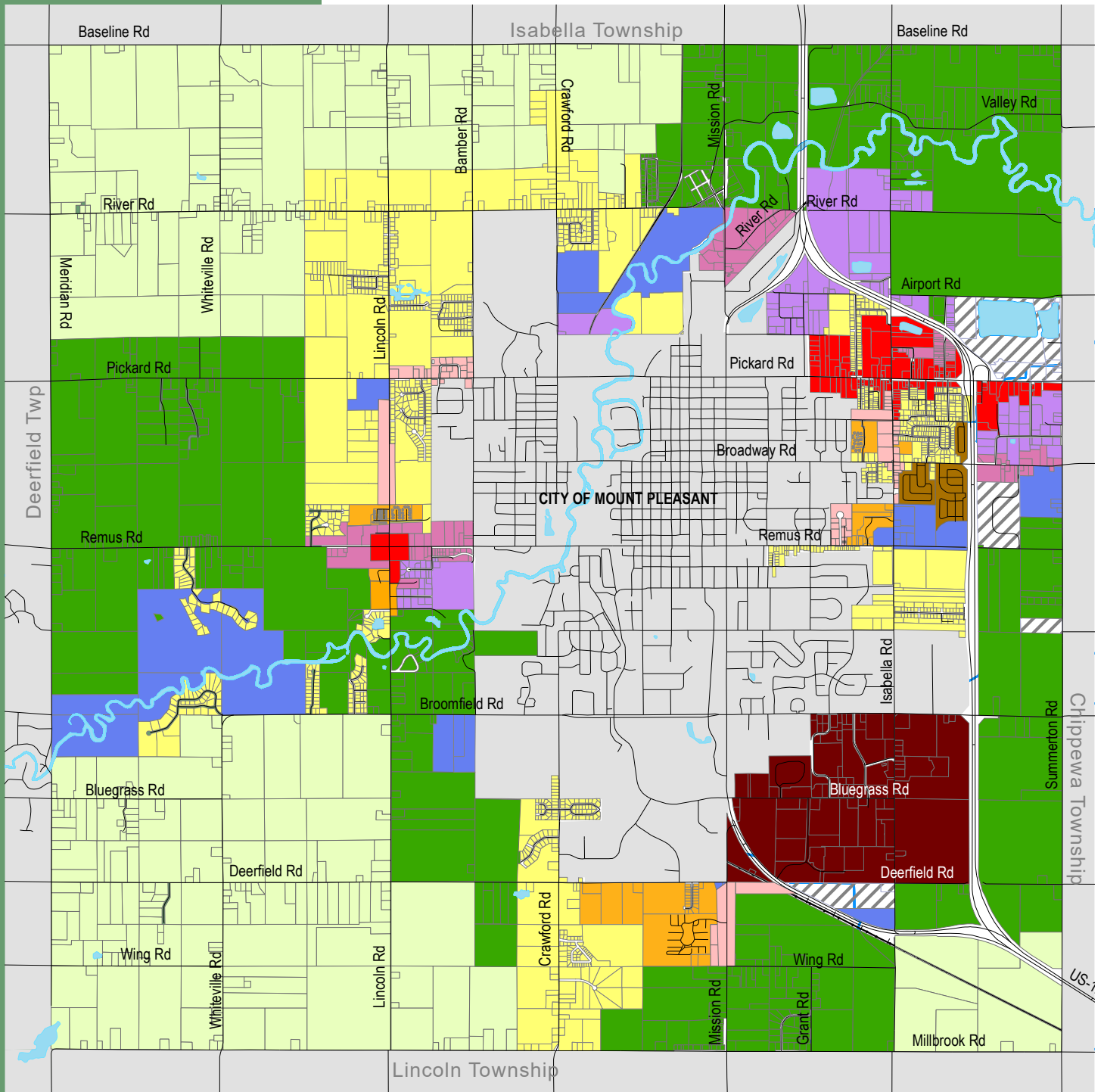
In addition to those challenges listed above, the following factors influenced the proposed future land use pattern in Union Township:

- Existing land use - Wholesale changes to the existing land use pattern would be difficult. The locations of most existing commercial and industrial developments are appropriate, and the community land use patterns have evolved around these existing land uses.
- Relationship of incompatible uses - The future land use plan strives to diminish incompatible land use relationships by providing a transition of land uses, such as offices between retail and single-family residential areas.
- Natural features - The types of development and allowable density shown on the future land use map were determined by the location and extent of natural features. For example, lower overall development densities are proposed for properties containing significant wetland areas to encourage clustering in buildable areas.
- Existing Township Master Plan - The future land use plan contained in the previous plan was re-evaluated based on current trends and conditions for this update.
- Infrastructure - The density of residential uses and the location of land uses such as industrial and commercial are dependent on the availability and the capacity of the infrastructure system. Portions of the Township are currently served, or are planned to be served, by public water and sewer. The capacity of the road network defines the intensity of uses that may be served without adversely impacting traffic operations. The availability of community facilities such as schools, recreational facilities, police and fire protection places bounds on service to land use, particularly residential density. For this reason, this plan includes a growth boundary.
- Township Vision - The land use pattern desired by Township officials and property owners has been expressed with the objective of a diversified tax base, employment opportunities, provision of services for residents and desire for a mixture of uses.

For more info on infrastructure and the growth boundary see Chapter 2: Growth Management, for more on road system, see Chapter 3: Transportation

### ***Future Land Use Planning Principles:***













- *Continue to sustain the overall residential and rural character of the township.*
- *Provide an attractive business environment and opportunities for businesses to expand the economic diversity of Union Township and contribute to the overall economic strength.*
- *Ensure the transition from one use or grouping of uses to another is compatible with surrounding uses through screening and buffering.*
- *Foster the revitalization and redevelopment of existing uses or areas which have deteriorated or have become obsolete.*
- *Promote systematic development of residential, commercial, and industrial uses in specific areas and corridors as recommended to take advantage of existing infrastructure and future improvements.*
- *Promote compatibility between existing and future uses along Union Township's boundaries with other communities.*



### Future Land Use



Sources: MCGI, Union Township, LSL Planning

- |   |   |
|---|---|
|  Rural Preservation    |  Neighborhood Service      |
|  Rural Buffer          |  Community Commercial      |
|  Residential           |  Commercial/Industrial Mix |
|  Residential- Attached |  Industrial/Employment     |
|  Manufactured Housing  |  Recreation/Institutional  |
|  Bluegrass Center Area |  Tribal Trust Lands        |

Read more about Rural Preservation and Rural Buffer in Chapter 2: Growth Management



## C. Housing

The success of Union Township neighborhoods still relies in large part on the creation, preservation and rehabilitation of the housing stock, the availability of home ownership, the proximity to community facilities and services, and housing options for all segments of the population.

People looking for a place to live, or deciding whether to stay within a geographic area, typically focus on several factors. These factors include the character of the neighborhood/immediate area, quality of the public school system, distance from the workplace, perceptions of home value appreciation, the diversity of housing available to meet changing needs and income levels, among other issues.

This section serves as a basis for future land use plan strategies regarding housing to support residential land uses that are further detailed later in the chapter.

### Residential

After agriculture, this category is the township's predominant land use, and is meant to promote single-family homes on a variety of lot sizes. With new development, subdivision design should protect open space and natural features and limit single driveways onto corridors.

### Residential – Attached

This land use category covers a variety of attached dwelling units and includes areas planned for both medium- and high-density residential development including duplexes, attached condominiums, townhomes, and flats.

### Manufactured Housing

This category is provided primarily for manufactured housing communities, such as those located on Broadway Road between Isabella Road and US-127. This designation is limited to areas along Major Arterial roads served by utilities.

## Housing Best Practices

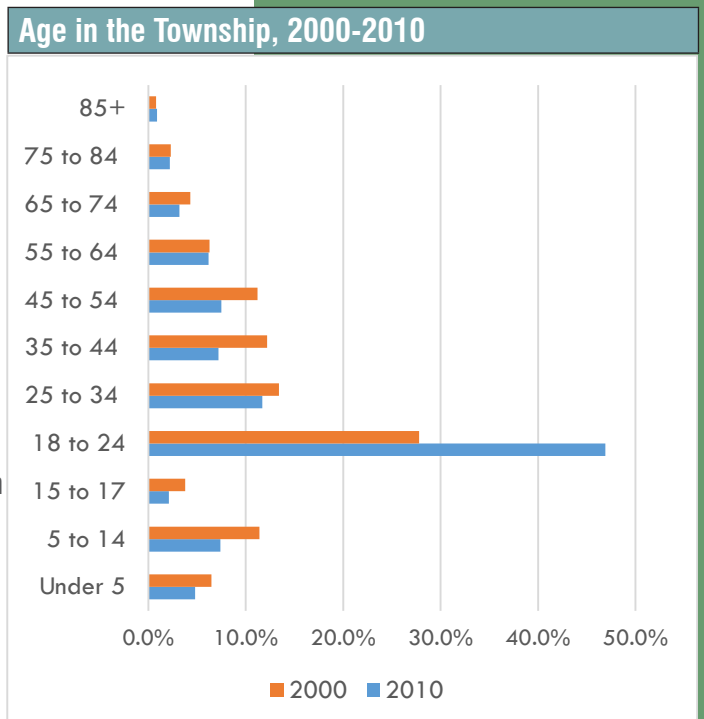
Union Township offers a range of housing opportunities including single-family residential, manufactured home communities, multi-family residential (low to high density apartment or condominium developments), and townhouses. This section identifies ways to continue to diversify new housing opportunities for various income and age groups.

### Housing Options for Changing Demographics

Demographically two segments of the national and local population are transitioning and present an opportunity for the Township; these include baby boomers and young adult households. A significant segment of the existing Union population has lived there for 15 to 20 years and will soon become or is empty nesters. They have raised their children in the community and have established personal and professional relationships which anchor them. However, these active empty nesters may be inclined to seek a different lifestyle including as its centerpiece, a new potentially smaller condominium home in a highly amenitized environment which might include a golf course, central clubhouse/activity center, trails or even an urban hub with retail and entertainment options.

The housing needs of seniors is an important part of the commitment to provide appropriate housing choices for all of its residents. Viable housing options should include remaining

*Cohorts for Township residents ages 18-24 saw the greatest increase between 2000-2010, at approximately 50%, likely stemming from more university students living in the township*



**Objective 3.2: Expand housing choices to support multiple options for a wide range of age groups and family types.**



In December 2016, a countywide Target Market Analysis indicated that attached housing units such as townhomes, row houses, lofts, and multiplexes accounted for nearly three quarters (74%) of the maximum potential growth for Isabella County, 60% of which was expected to come from the City of Mount Pleasant and surrounding areas.

Renters now account for 62% of households in the Township, whereas County and State trends for renters are estimated at 40% and 29%, respectively.

at home as long as possible and is especially important to residents who want to stay in the neighborhoods they are most familiar with and be near family and friends. Retrofitting existing homes to be accessible for seniors desiring to “age in place” could include ramps, wider doorways, and first floor bedrooms and accessible bathrooms. Where “aging in place” is not feasible, special facilities, such as senior independent living, assisted living and congregate care is another important housing option to be provided within the community.

In order for housing to be affordable for multiple income levels and family types, a balance of owner and renter-occupied units for a variety of incomes should continue to be provided. Smaller families and couples may desire alternatives to single-family detached, owner-occupied housing, such as townhomes, flats, and apartments above storefronts. Other households may choose to rent to maintain mobility. In cases where there may be a trend in renter-occupied single-family homes, the Township should monitor housing quality to ensure neighborhood stability.

Because of the township’s proximity to Central Michigan University, it will continue to see a demand for student housing. The Township seeks to strike a careful balance between serving the market and protecting character of the community. The Bluegrass area remains the best location for new housing catered to students. As other older apartment complexes age, retrofitting them with better architectural and site design will become more important to ensure they match the quality and character desired in the township.

**Multiple-Family Design Guidelines**

Multiple-family residential dwelling units help to improve the choice of housing

Owner- vs. Renter-Occupied Housing				
Community	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
Township	1,838	38%	2,966	62%
County	14,838	60%	9,823	40%
State	2,728,815	71%	1,112,333	29%

Source: 2011-2015 American Community Survey Estimates

**Current Conditions: Attached Housing**



Multiple-family complexes should provide sufficient bicycle parking. Covered parking and screened waste receptacles would be even better to improve the appearance.



These attached units could benefit from sidewalks, more prominent entrances and less prominent garages.



These apartments need sidewalks along the edge of the parking to eliminate pedestrian and vehicular conflicts in the parking lots

types and to provide housing opportunities. Several areas have been classified for medium- and high-density residential use at strategic locations in the township and provide opportunities for development. Multi-family residential also provides opportunities for an older population (empty nesters, retirees and those in need of care). Multi-family housing types extend beyond the typical multi-family apartment building. Single-family attached condominium units as part of planned development projects have been a fast growing housing choice for empty-nesters and retirees.

Multiple family or attached single-family structures should incorporate architectural design elements that emulate single-family neighborhoods such as pitched roof lines and prominent entries, and minimize appearance of garage doors. Sites should provide pedestrian connections between building entrances, public pathway connections, and parking areas. Important site design features include waste receptacle screening, parking lot landscaping, bike storage.

### *Housing Preservation and Maintenance*

Residents who take pride in their homes, whether rented or owned, can contribute positively to a neighborhood's image and reinvestment opportunities. Therefore, home stewardship should be supported broadly, beyond owner-occupied residences to include rental home and apartment maintenance. Currently, the Township requires rental inspections, which keeps tabs on building safety. This could be broadened to ensure zoning compliance. For more on code enforcement, see page **XX**.

Expanding outside current Township programs may include efforts to support home stewardship by encouraging partnerships with non-profits, agencies, or local home improvement stores to provide community training in home repair skills, mortgage assistance, and providing needed resources, such as tools and materials for physical renovations.

## **Housing Implementation Strategies**

- *Continue vigilant enforcement of housing, rental, and maintenance codes.*
- *Ensure compliance with property maintenance standards so landlords are accountable.*
- *Work with senior citizen groups such as ICCA to assess and meet the housing needs of older residents*
- *Coordinate with CMU Campus Safety to address safety concerns regarding student housing.*
- *Support agencies that provide low-cost housing*
- *Conduct a housing market analysis to determine needs and whether zoning currently matches with the market demand.*
- *Evaluate residential and select business districts to allow a wider variety of attached housing types*



## **Best Practices: Attached Housing**



*Attached single-family, like this duplex above, can resemble a single-family home.*



*Townhouse style development is very popular among young adults and empty-nesters.*



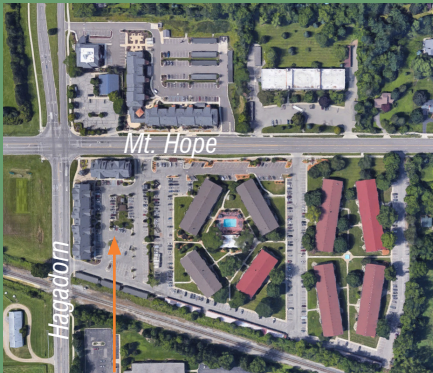
*Modern apartments can have sleek design features and support a more walkable streetscape.*



Objective 3.3: Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.



### Mixed-Use Example



The Hamptons in Meridian Township near Michigan State University is a good example of suburban mixed-use development. Storefronts line the corridor with apartments above and parking in the rear. This planned unit development integrates well with the existing, more traditional apartment buildings.

## D. Mixed-Use Bluegrass Center Area

While currently more auto-centric, this area has the potential to transition into a more walkable, vibrant center. Future uses should be integrated to include multi-story, mixed-use buildings; first floor retail and office uses; public use and spaces; entertainment and restaurant venues; and additional attached housing types such as townhouses. Both vehicular and pedestrian cross connections should be promoted between sites, providing for future connections through easements, and should collectively promote a vibrant, livable center to the neighboring university population.

Key gateways into the center at busy intersections should have clearly delineated, safe pedestrian crossings and gateway landscaping and signage to project the “town center” image and branding for the district. This branding can continue through streetscape improvements such as pedestrian scale lighting, banners, street trees, and street furniture, similar to those provided by the EDA on Pickard Road, to build a cohesive center. Working with the Road Commission, Union Township should prioritize right-of-way easements to capture the pedestrian amenity zone in front of street-fronting development.

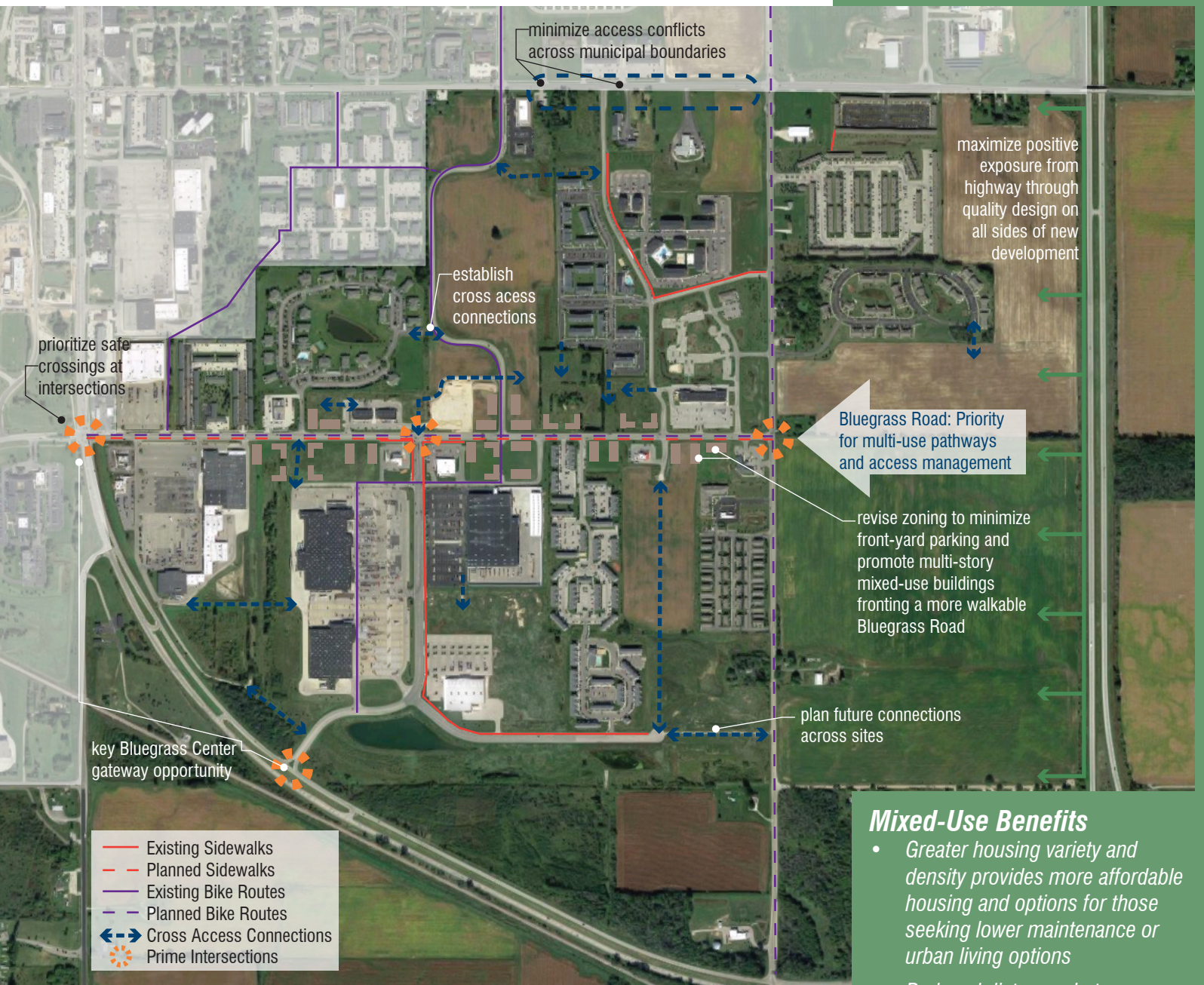
Mixed-use development promoting walkability should be prioritized along Bluegrass Road and connections made to nearby apartment complexes and big box retailers. New development visible from Highway 127 should be developed with friendly “back doors” as well to ensure the highest quality image for the township is projected to travelers.

This area could benefit from master planning, a form-based code, or planned unit development to ensure that future development is coordinated with roadway improvements. The concept plan depicted on the following page is meant to be the first schematic step at identifying further, more concrete, recommendations during the development of a more detailed subarea analysis.

See the design guidelines recommended for attached housing and commercial development in other sections of this chapter.







## Bluegrass Center Concept Plan

### Mixed-Use Development

Mixed-use development is a development or building that blends a combination of residential uses, or that combines residential and non-residential uses, and where those functions are physically and functionally integrated. By locating places where people live, work and shop in close proximity to one another, alternatives to driving, such as walking or biking, become more viable. Mixed-use developments can offer a variety of residential opportunities so that younger and older people, singles and families of varying income levels may find places to live. A more diverse and sizable population and commercial base can also better support public transportation.

### Mixed-Use Benefits

- Greater housing variety and density provides more affordable housing and options for those seeking lower maintenance or urban living options
- Reduced distances between housing, workplaces, retail businesses, and other amenities and destinations reduces travel time and improves convenience
- More compact development makes more efficient use of public services, utilities and infrastructure
- Stronger neighborhood character and sense of place result when citizens and businesses interact
- Walkable, bikeable neighborhoods increase accessibility, which results in improved travel options, reduced transportation costs and improved community health

*Objective 3.5:  
Continue to encourage  
quality office and  
commercial development  
and redevelopment along  
corridors.*



## **E. Commercial and Employment Commercial**

The commercial uses in the Township are generally clustered along major roads or intersections near the boundary of the City of Mount Pleasant, and vary in age, design and site placement. Large vacant commercial parcels are located in the areas near Pickard Road and also along the Bluegrass Road corridor. Since commercial uses tend to change location or update their facilities once every decade or two, the varying ages of buildings and vacant properties within established commercial areas are indications of future change – redevelopment of the commercial area, transition to other uses or gradual abandonment. Abandonment or under-use of commercial property affects the value of adjacent commercial entities. The following land use recommendations for commercial in the township seek to maximize the potential of existing sites, provide alternatives to traditional separation of uses, poise new commercial development to respond to the ever changing economic climate, and ensure the township achieves the highest quality development possible.

### **Neighborhood Service**

Located primarily along corridors adjoining lower intensity land uses, the intent of this district is to limit future retail and focus on small-scale personal service and office uses. This district accommodates shallow lots, providing a good buffer and transition to residential uses and limiting heavy commercial and general retail uses so they can be focused on other areas of the township. Rear yards adjoining residential areas should be well-screened to limit impacts of higher intensity uses. These areas should be accessible and comfortable for the pedestrian and should create a sense of place along the roadway.

#### *Neighborhood Service Design Guidelines*

Neighborhood Business areas are located near residential neighborhoods and should be compatible with the residential scale of the surrounding area. In these locations, the nodes can become a focal point, or gathering area for a neighborhood. The following design guidelines should be considered for incorporation into the zoning ordinance.

- Building architecture should possess a timeless character that signifies the presence of the commercial area and reflects pedestrian-oriented design. The use of high-quality building materials is strongly recommended to create a memorable character.
- All buildings should have exterior facades made of brick, glass, wood, and cut or simulated stone.
- All front facades should have windows and distinguishing architectural features commonly associated with the front of a building, such as awnings, cornice work, edge detailing, or other decorative finishes. Similar treatment is also needed on the side and rear depending on visibility from the roadway and surrounding property.
- Buildings are encouraged to be built closer to the street with most or all of the parking located to the side or rear. This will not only strengthen the streetscape but will ensure a district character of active and pedestrian-oriented areas that promote walking.
- Streetscape treatment should be used to signify an entrance and sense of place. This provides a benefit for motorists and pedestrians to more easily identify these areas, and it is better for business owners because the streetscape can be used as a form of business recognition.

*At the time of this plan's writing, improvements to Lincoln Road, including a new bridge, were underway. The future land use plan indicates neighborhood service for a portion of the frontage along Lincoln between Pickard and Remus. The Lincoln/Broomfield/Remus corridors should be evaluated in the future as the planned "loop road" around Mount Pleasant becomes more established. Land use decisionmaking for this area should balance road capacity and defining use types that can serve the neighborhood without duplicating or drawing commercial away from East Pickard.*



- The streetscape should include wide sidewalks, street trees, and street lighting. For additional enhancement along the streetscape, storefronts should allow for an area of planted flowers, plants, or benches.
- Parking abutting residential should be screened with a mixture of treatment such as landscaping and a wall or fence. Large canopy trees are also needed in parking lots to create shade, to break up the view of the built environment, and to enhance the overall site.
- Parking should be minimized to the greatest extent because pedestrian-orientation is promoted. The township should employ techniques such as shared parking, banked parking, and setting a maximum amount of parking to ensure the number of spaces is not excessive.
- In areas with less neighborhood appeal, at a minimum shared and connected parking is important to improve traffic flow between sites and avoid additional volumes onto the adjoining main road.
- Care should be taken to locate loading and unloading areas so that they are screened from view. Waste receptacle enclosures should also be sited so they are out of view and constructed of quality materials that are found in the building they serve.

### Key Design Concepts

- *Promote high quality, durable building construction and design*
- *Use site design features such as landscaping, lighting, and parking to improve circulation and appearance*
- *Screen undesirable views*
- *Limit the clutter of business signs*
- *Promote pedestrian oriented design*

### Best Practices: Neighborhood Service





**Community Commercial**

This district is intended for the widest variety of retail and service businesses. They could range from apparel shops, auto service, and restaurants through small commercial strip centers and office buildings. This district is not intended for heavy commercial/light industrial uses like landscaping or contractor yards, heavy auto repair, or similar uses that may require some form of outside storage. Locations for this district are based on arterial road frontage and the need for high traffic volumes with convenient, well-managed access.



**Community Commercial Design Guidelines**

The focus of design guidelines for these areas is to ensure durable, high quality building design, place limitations on potential nuisances such as lighting and offer techniques to minimize the visual impacts of large building massing and parking.

- Building materials should be durable and have an appearance of permanence and substance consistent with surrounding buildings. For instance, brick, split-faced block or similar materials are encouraged as the primary building material.
- All visible wall elevations from the street must be designed with design details and treatment consistent with the front elevation of the building.
- Building colors should be subtle and consistent with the businesses along the corridor or within the shopping center.
- New building construction and renovations should be consistent in massing with the desired scale and proportion of the business corridor or area.
- Building massing should be reduced by incorporating vertical and horizontal breaks, varied rooflines, archways and other treatments.
- Entrances to commercial buildings should use windows, canopies and awnings; provide unity of scale, texture, and color to adjacent buildings; and provide a sense of place.
- Building entrances should be prominent and accessible from the roadway when located near the front of the site and otherwise oriented towards parking areas with a high quality façade.
- Rooftop equipment should be completely screened to protect views from the roadway and adjacent uses.
- Newly constructed parking lots should provide a setback and landscape greenbelt.
- Parking lot landscaping is especially important in minimizing large parking lots.
- Loading facilities and overhead doors should be prohibited along any building side facing a public street or residential area.
- Rear elevations visible from the roadway and/or residential areas should have a finished quality consistent with the other elevations of the building.

**Industrial and Employment**

A goal of Union Township is to promote the region as a destination for industry and tourism. However, the taxable value of occupied industrial areas is just over one percent of the total taxable value for the Township. To contribute to the attractiveness of the region for industry, Union Township should strive to offer more opportunities and incentives for industry to locate here.



The Township should also consider opportunities to capitalize on the energy from CMU, and look for ways to accommodate new uses such as Research and Design in industrial districts to promote growth.

Both the university and the hospitality operations cater large number of meals creating the possibility for food processing, storage and packaging facilities for locally grown food.

### *Industrial Categories Design Guidelines*

This section includes design standards for both the Commercial / Industrial and Industrial Employment future land use categories. Since these types have similar characteristics, architecture and building design should generally follow similar guidelines. Zoning regulations dealing with signs, building placement and lighting will help industrial uses to blend with different uses.

**Building Design.** Buildings should reflect a quality image that is attractive to

### *Objective 3.4.*

*Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.*



### *Commercial / Industrial*

This district is intended for a blend of medium intensity commercial and some light industrial uses. Small-scale manufacturing, auto-related uses, storage and businesses such as construction or landscape supply which require outdoor storage and a limited retail component are promoted here, with heavier screening requirements to ease the transition between these areas and less intense adjoining uses.

### *Industrial / Employment*

This category promotes employment generating uses associated with industry, as well as production for regional goods and services. Located near regional nodes with convenient access to interchanges, this district provides an opportunity to diversify the industrial employment base of the township by reserving areas for research, development, technology, and corporate offices or campuses that will have less of an impact than traditional industrial uses. Uses to complement CMU's Smart Zone would include research, design, engineering, testing, laboratories, diagnostics, and experimental product development. Types of industries may include automotive, electronics, alternative energy technologies, computers, communications, information technology, chemical or biomedical engineering.

employers and employees, by addressing the following design elements:

- The administrative/office segment of the building should utilize quality architecture with variable building lines, rooflines, architectural accents, and brick facades similar to community and regional scale commercial development.
- The administrative/office portion of the building should be located and oriented toward the front of the site and appropriately transition into the warehouse and manufacturing areas.
- The portion of industrial buildings devoted to warehousing and manufacturing should be located at the rear of the building.
- Techniques should be utilized to break up building massing such as vertical and horizontal articulation, windows, varying facades, and landscaping.
- The predominant material utilized on facades visible from a public right-of-way or parking lots should be brick, split face block or other high-quality decorative masonry material.
- Building materials should be durable and have an appearance of permanence and substance.
- Loading areas and overhead doors must be located where they are not visible from the roadway and residential areas and proper screening must

mention economic development:  
working with chamber and EDAs,  
airport authority idea

### *Best Practices: Industrial*



**Objective 3.1:**  
*Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.*



## **Best Practices: Outdoor Storage and Screening**



### **Site Design Approach**

- *Improve attractiveness of buildings and sites.*
- *Make it more comfortable for people to walk along and between businesses.*
- *Strengthen corridor character and branding.*
- *Better delineate parking areas.*
- *Improve visibility of existing businesses.*
- *Promote uses that will be successful to fit the character of the area.*
- *Promote successful uncluttered signs.*

be provided in the form of landscaping, and a berm where deep setbacks are provided. Screening may also be provided in the form of an integrated screen wall extending from the building. If a deep setback is not possible, a wall with plantings should be provided.

**Outdoor Storage.** Within the township there are a number of industrial uses that rely on outdoor storage for their operations. Because the Township wishes to promote the economic viability of a variety of business types outdoor storage should be allowed, but strictly regulated in industrial areas. These standards should be considered in controlling outdoor storage:

- Outdoor storage areas should only be permitted within the rear yard of any site and meet the side and rear setback standards for a principal structure as a special land use.
- The size of the storage area should be limited by setback requirements and a maximum area should be allowed that is relative to the specific lot size.
- Designated outdoor storage areas should provide suitable containment in the form of opaque screening walls or opaque fences. In cases where it is necessary to use a chain link fence, the fencing shall be black vinyl coated and augmented with landscaping.
- To provide further screening and enhancement, plantings should be required along the outer perimeter of a screening wall or fence.
- Regulations should be flexible as to the types of materials stored outdoors, provided they do not cause hazardous contamination of soils and are contained in a manner that prevents the material from blowing away.
- Materials stored may be stacked or placed at a height that is at or below the level of the screening wall or fence to ensure effective screening and containment.
- Circulation for emergency vehicles must be maintained within the storage area.
- Large outdoor storage operators, such as asphalt/paving companies or compost or recycling businesses, should mitigate views onto the site through increased setbacks and landscaping.

**Screening from Residential.** The future land use plan attempts to create transitions and separation between industrial development and single-family residential neighborhoods by planning other land uses in those areas such as Residential - Attached, Community Commercial, and Neighborhood Service. In many cases, however, past development decisions and land use policies have created numerous areas in the township where single-family residential abuts industrial operations. Since redevelopment cannot always occur with the desired land use separation, there will be circumstances where industrial development will be adjacent to single-family residential.

In these cases it is the priority of this plan to ensure as they redevelop, are reused, or expand that additional screening is provided to minimize impacts. Screening should be provided by the industrial user in the manner described below when residential abuts the site, or when residential is directly across the street. Since sites are different, flexibility is needed to adjust to site conditions while at the same time maintaining the important priority of protecting residential areas.

- Deep setbacks are needed to physically separate industrial buildings from residential areas and to allow adequate space for proper screening.
- Landscaping is needed to provide a natural, aesthetic screen. Plantings

should include both evergreen trees and large canopy trees to provide year round screening and screening at varying heights. Planting spacing must be dense enough to prevent 'openings' in the landscape screen.

- Undulating berms should also be incorporated into the landscape screen to obtain a taller, opaque screen. Since plantings take time to grow and fill in, the berm will contribute to an immediate screening of taller structures. The width of the berm must be adequate to allow a natural slope to the berm that can be maintained and allows for plantings to thrive.
- In cases where a deep setback is not possible, an opaque screening wall is needed in addition to plantings.
- Although the entire length of the property line should be screened where it abuts or is across the street from residential, attention should be directed toward loading areas, outdoor storage areas, or other on-site operations that may be particularly displeasing to residents. Where possible, attempt should be made to orient these activities to the opposite side of the site.

## Best Practices: Buffers



## Site Design and Economic Development Implementation Strategies



- *Meet quarterly with members of Chamber of Commerce and EDAs to discuss opportunities for economic development in the Township*
- *Establish a community-wide marketing and economic development strategy.*
- *Explore the possibility of an airport authority to create a long-range vision for economic development initiatives tied to airport improvements*
- *Evaluate the use of a form-based code along Remus, Bluegrass, and Pickard to complement the City of Mount Pleasant's code for continuity of building and site design*
- *Update screening requirements between residential and non-residential uses to more adequately require buffers to reduce impacts of noise, light, and traffic from more intense uses*
- *Revise parking regulations with a maximum number of allowed parking spaces; may be a percentage above the minimum requires PC waiver*
- *Add a zoning inspection to the certificate of occupancy process to ensure sites are built according to the approved site plan*
- *Strengthen consequences for code violations in junkyard ordinance to discourage repeat offenders and reduce blight*
- *Revise sign regulations to be content neutral: by type, location, and size, not by use (political, religious, gas station etc.)*
- *Move site development standards in the zoning ordinance out of the business district sections into a general section that can also apply to multiple-family development (landscape, parking lot design and landscaping, waste receptacles, building design)*
- *Establish maximum setbacks and design guidelines for all districts.*
- *Revise industrial districts to permit retail, R&D and tech-related uses to enhance growth.*



## **A. Introduction**

The Master Plan is intended to serve as a guide for land use and physical development or redevelopment. Goals, objectives and strategies noted throughout the Plan should be carefully considered during decisions on rezonings, zoning text amendments, other regulations, capital investments for improvements to streets, “complete streets” bikeways/walkways, utilities, public facilities, land acquisition, and development proposals. Recommendations in this Plan apply to both public land (parks, sites, and right-of-way) and guidance for development and redevelopment of privately owned property. Some Plan recommendations may involve the need for changes to land use regulations and/or potential new programs. Others may involve partnerships with other municipalities, agencies, organizations, or groups. Since the Plan is a long range guide, refinements or additional studies may also be appropriate in the future to reflect new information, respond to unanticipated factors or to address changes in township policies.

The Master Plan is only valuable if used consistently. This chapter has been prepared to summarize the various recommendations into a checklist to outline actions and responsibilities for implementation. A cumulative listing of implementation recommendations is included in this chapter. Where appropriate, a timetable is suggested for execution of these strategies and actions consistent with available staff and financial resources of Union Township.

Also included in this chapter is a zoning plan that compares consistency between zoning classifications and future land use map designations and development guidelines used to evaluate land use proposals

## **Evaluation and Monitoring**

This plan has been developed with a degree of flexibility, allowing nimble responses to emerging conditions, challenges, and opportunities. To help ensure the plan stays current and useful, periodic reviews are required and amendments may be necessary. This will ensure plan goals, objectives, and recommendations reflect changing community needs, expectations, and financial realities.

The plan should be reviewed at least every five years consistent with state statute. Detailed subarea plans should be adopted as Master Plan amendments. Updates should reflect changing conditions, unanticipated opportunities, and acknowledge the implementation to date. Yearly workplans should be prepared to assess what has been accomplished in the implementation table and what should be achieved in the coming year.

## **Planning Commission as Facilitators**

The Planning Commission is charged with overseeing plan implementation and is empowered to make ongoing land use decisions. As such, it has a great influence on how sustainable Union Township will be. As an example, the Planning Commission is charged with preparing studies, ordinances, and certain programmatic initiatives before they are submitted to the Township Board. In other instances, the Planning Commission plays a strong role as a “Plan Facilitator” overseeing the process and monitoring its progress and results. Together, Township staff and the Planning Commission must be held accountable, ensuring the Township’s Master Plan impacts daily decisions and actions by its many stakeholders.

## **Roles of the Township Board**

The Township Board should be engaged in the process to implement the plan. In this regard, Board should assist with implementation strategies and consider and weigh the funding commitments necessary to realize the township’s vision,



whether involving capital improvements, facility design, municipal services, targeted studies, or changes to development regulations, such as municipal codes, the zoning ordinance and procedures.

## **B. Implementation Tools**

Tools to implement the Master Plan generally fall into five categories and some strategies may include more than one:

1. Land use regulations
2. Capital improvement programs, such as streets, township buildings, or other major purchases
3. Special Funding Programs
4. Programs or additional studies
5. Partnerships, such as working with other organizations on planning, education, funding, or delivery of cost-efficient services.

Each tool has a different purpose toward Plan implementation and may suggest specific immediate changes, long-term policies and others involve ongoing activities.

### **1. Land Use Regulations**

The primary tool for Plan implementation, which includes the Zoning Ordinance and other land use regulations, is summarized below. The township also has a number of other codes and ordinances to ensure that activities remain compatible with the surrounding area, such as noise, blight and nuisance ordinances.

#### *Zoning Regulations*

Zoning regulations control the intensity and arrangement of land development through standards on lot size or units per acre, setbacks from property lines, building dimensions and similar minimum requirements. Various site design elements discussed in this Plan are also regulated through site plan review and address landscaping, lighting, driveways, parking and circulation, pedestrian systems and signs. Zoning can also be used to help assure performance in the protection of environmentally sensitive areas such as floodplains, state regulated wetlands, woodlands and wellhead areas.

#### *Zoning Map*

Over time, changes to the zoning map should become more consistent with the land use pattern identified on the Future Land Use Map. In some cases, the township may wish to initiate certain rezonings as part of an overall zoning map amendment. Other changes to the zoning map can be made in response to requests by landowners or developers. In those cases, township officials will need to determine if the time is proper for a change. It is important that the future land use plan be understood as a long range blueprint: Implementation is expected, but gradually in response to needs, conditions and availability of infrastructure. The Zoning Plan section of this chapter outlines how the Future Land Use Plan relates to current zoning.

#### *Subdivision, Land Division and Condominium Regulations*

Subdivision, land division and condominium regulations control the manner in which property is subdivided in the township and the public improvements required to support the development. The distinctions are not always apparent once a project is built, but the approval procedures are different due to separate state statutes that govern these types of land development approaches in Michigan.

### *Public Infrastructure Standards*

Public infrastructure refers to the basic facilities and services needed for the functioning of the township such as township streets, water, sanitary sewer, storm sewer, among others. Standards to ensure consistency and uniformity have been adopted so that each facility is designed and constructed to support existing and future development.

Most land use regulations are applied when new construction or substantial redevelopment is proposed. Union Township has a comprehensive development review process from development conceptualization to building occupancy. Once proper zoning is in place, a site plan must be approved followed by approval of building and site engineering, construction plans and then permits for construction. Buildings and sites are inspected and then occupancy permits are issued. The subdivision and subsequent development of land is also carefully reviewed. Regulations are administered and enforced through monitoring by township staff and in response to complaints.

## **2. Capital Improvement Program (CIP)**

Except for private roads, the roads in the township are under jurisdiction of the county, with responsibility for a few routes is MDOT. Funding for improvements to those roads is generally based on physical condition, safety issues or traffic operation deficiencies. Improvement projects are generally prioritized by the county or MDOT. The Township may be able to influence the selection of projects through assistance in providing documentation of problems, or participation in improvement funding, such as through the EDA or grant requests. This desired road improvement projects should be listed in the Township's CIP as a first step.

## **3. Funding Programs**

Some of the recommendations may be funded locally, some through outside funds, and many through a combination. The Township monitors new federal and state funding programs that may be available to assist in implementation. In addition, foundations and other organizations may provide contributions. In addition to traditional sources, the township has the ability to raise revenues within a specific geographic area for specific purposes, or to capture the new increment of tax revenues in a specific geographic area for specific purposes. One example is the Economic Development Authority. Another tax-based program is the Brownfield Act that provides funding for reuse of eligible sites. In cooperation with other governmental agencies with taxing authority, the Township has effectively used tax increment finance programs to capture the new increment of tax revenue for a specific area and use those funds for public improvements within that area.

## **4. Other Programs**

A variety of housing, economic development, informational and other programs may be used by the Township to assist with implementation of recommendations in this Plan. Many of these are through state programs as identified in the preceding chapters such as the following:

- Michigan State Housing Development Authority (MSHDA)
- MSHDA MiPlace
- Michigan Economic Development Corporation (MEDC)
- MEDC Redevelopment Ready Communities
- Michigan Department of Transportation (MDOT) and Complete Streets Coalition
- Michigan Department of Natural Resources
- HUD CDBG

## 5. Partnerships

While the Township is in a position to coordinate many of the plan's implementation tasks, responsibility should not solely rest on the government. Instead, the vast array of stakeholders having key roles in either the township or region should all participate. Partnerships with the public and private sector, including the school district, Isabella County, City of Mount Pleasant, Central Michigan University, Saginaw Chippewa Indian Tribe, neighboring townships, major employers, and business will also lead to success implementing the plan's initiatives. Partnerships may range from sharing information to funding and shared promotions or services. The spirit of cooperation through alliances and partnerships will be sustained to benefit everyone in the region. Township government cannot and should not do it all. Only through public/private collaboration can the plan's vision be realized.

## D. Action Plan

The implementation tools outlined above are available and should be used to achieve the goals and objectives of the Master Plan. Comprehensive actions have been developed to organize and apply these tools. Under each implementation tool, specific actions and a timeframe for implementation are identified. The details of the strategies to implement the Master Plan are specified in the accompanying table.

### *Abbreviations Used in Implementation Table*

TB	Township Board
DPW	Department of Public Works
PC	Planning Commission
Staff	Township Planning Staff
ICRC	Isabella County Road Commission
BD	Building Department
Admin	Township Administration
City	Mount Pleasant
Consultant	Will likely require outside assistance to prepare
Short-term	1-5 years
Long-term	by 2027

By using an Annual Review & to-do list, the Township can ensure recommendations from the Master Plan are implemented consistently and on schedule.

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
<b>Capital Improvements</b>								
Capital Improvements Plan	Prepare and annually update six-year capital improvements plan that coordinates with the master plan		✓				✓	PC; TB; Admin
Non-Motorized	Acquire easements where feasible for non-motorized facilities in areas where right-of-way is insufficient		✓				✓	Staff; DPW
Non-Motorized	Pursue local, state and federal funding to continue implementation of a non-motorized transportation system, both in the right-of-way and off-road trails / pathways		✓				✓	TB; PC; DPW
Parks	Implement parks improvements from the Parks and Recreation Plan	✓					✓	Rec Committee
Environmental Sustainability	Expand recycling facilities to accommodate recycling for businesses and multi-family uses	✓			✓			Township; City; County
<b>Coordination</b>								
Non-Motorized	Work with organizations and advocacy groups such as bike users, seniors, and schools to develop Safe Routes to School programs and trail organizations to identify priority needs for walking and biking.		✓				✓	Pathways Committee
Transit	Work with Isabella County Transportation Commission towards increasing sidewalk connectivity within 1/4 mile of all existing and planned bus stops in the Township.		✓				✓	Staff, PC
Non-Motorized	Re-engage the Pathways Committee; encourage regular meetings to prioritize improvements to the existing sidewalk and pathways network.		✓		✓			PC; TB
Non-Motorized	Encourage the Road Commission to support the creation of "Complete Streets" that consider the needs of vehicles, bicyclists, and pedestrians equally		✓				✓	ICRC
Growth Management	Ensure coordination between Public Works and Planning Departments so Township utilities are expanded in a logical, efficient manner.	✓					✓	PC; DPW
Water Quality	Implement community programs that promote best practices for improving water quality	✓					✓	TB; PC
Economic Development	Meet quarterly with members of Chamber of Commerce and EDAs to discuss opportunities for economic development in the Township			✓			✓	Board; MEDC; Chamber
Housing	Work with senior citizen groups such as ICCA to assess and meet the housing needs of older residents			✓			✓	ICCA



Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Housing	Coordinate with CMU Campus Safety to address safety concerns regarding student housing.			✓			✓	CMU Public Safety; DPS
Economic Development	Establish a community-wide marketing and economic development strategy.			✓		✓		Chamber; MEDC; City ED; TB; Tribe
Economic Development	Explore the possibility of an airport authority to create a long-range vision for economic development initiatives tied to airport improvements			✓		✓		Chamber; MEDC; City ED; TB; Tribe
Policy/Program								
Non-Motorized	Use the Site Design Checklist provided in the 2011 Non-Motorized Plan as a model framework during site plan review, and provide copies of the list to developers to use as a reference guide		✓				✓	PC; Staff
Non-Motorized	Complete the planned pedestrian sidewalk and pathway system, especially to fill in gaps and connect neighborhoods with destinations like schools, parks, neighborhood shopping and entertainment districts, and cultural institutions.		✓				✓	Staff, Pathways Committee
Non-Motorized	Support public education that promotes the personal and environmental benefits of active lifestyles.		✓				✓	TB; PC
Non-Motorized	Adopt a resolution in support of Complete Streets.		✓		✓			TB
Non-Motorized	Update the inventory of sidewalks and bike lanes from the 2011 nonmotorized plan.		✓		✓			Staff
Access Management	Create specific access management recommendations for Bluegrass Center.		✓			✓		PC; Consultant
Environmental Sustainability	Support accessibility to local food	✓					✓	TB
Growth Management	Limit sewer and water extensions to areas not designated for agricultural preservation.	✓					✓	TB; DPS; PC
Stormwater Management	Encourage the use of cluster development, vegetated swales, downspout disconnection and other practices that reduce impervious surfaces and increase storm water infiltration.	✓					✓	PC
Stormwater Management	Promote Low-Impact Design (LID) to reduce the level of stormwater runoff	✓					✓	PC; DPW
Water Quality	Promote education of proper septic drainfield maintenance to increase lifespans of systems and preserve water quality	✓			✓			County Board of Health; BD
Water Quality	Require more frequent septic systems inspections	✓			✓			County Board of Health; TB

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Master Plan	Annually review Master Plan and track progress toward achieving actions						✓	Staff; PC
Training	Provide training for elected and appointed officials and staff and monitor participation						✓	Admin
Code Enforcement	Continue vigilant enforcement of housing, rental, and maintenance codes.			✓			✓	BD
Housing	Support agencies that provide low-cost housing			✓			✓	PC; TB
Code Enforcement	Add a zoning inspection to the certificate of occupancy process to ensure sites are built according to the approved site plan			✓	✓			PC
Code Enforcement	Ensure compliance with property maintenance standards so landlords are accountable.			✓	✓			BD
Housing	Conduct a housing market analysis to determine needs and whether zoning currently matches with the market demand.			✓	✓			Consultant
<b>Regulatory</b>								
Access Management	Implement recommendations from the 2006 Access Management Plan for Pickard and Remus Roads during site plan review		✓		✓			PC
Access Management	Require cross access and shared access for driveways in commercial districts.		✓		✓			PC
Access Management	Require transportation impact studies during development review to ensure walking, biking and transit facilities are as safe, convenient and comfortable as road facilities.		✓		✓			PC
Non-Motorized	Require bike racks for certain new, non-single family developments and promote installation of bike racks at key locations.		✓		✓			PC
Non-Motorized	Require non-motorized connections between sidewalks and business entrances, transit stops, and neighborhoods		✓		✓			PC
Non-Motorized	Require easements during site plan review where right-of-way is insufficient to provide non-motorized facilities		✓		✓			PC
Non-Motorized	Amend sidewalk ordinance to remove waivers for sidewalks in commercial districts		✓		✓			PC; TB
Parking	Revise parking regulations with a maximum number of allowed parking spaces; may be a percentage above the minimum requires PC waiver		✓		✓			PC
Parking	Revise parking regulations to include allowances for paved pervious surfaces in parking and loading areas.		✓		✓			PC
Growth Management	Create a cluster housing option in the Zoning Ordinance to promote smaller single-family lots and shared open space.	✓				✓		PC

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Growth Management	Ensure that lot sizes in Agricultural zoning districts are large enough (5 or 10 acres) to prevent fragmentation of identified priority agricultural areas	✓			✓			PC
Growth Management	Revise Ag district to limit future subdivision for single-family homes	✓			✓			
Landscape Requirements	Update screening requirements to allow rain gardens, bioswales, bioretention areas and filter strips	✓			✓			PC
Water Quality	Require vegetated buffers from all wetlands, streams, lakes and rivers to protect water quality.	✓			✓			PC
Code Enforcement	Strengthen consequences for code violations, and encourage compliance			✓	✓			PC; BD
Form-Based Code	Evaluate the use of a form-based code along Remus, Bluegrass, and Pickard to complement the City of Mount Pleasant's code for continuity of building and site design			✓	✓			PC; Consultant
Housing	Evaluate residential and select business districts to allow a wider variety of attached housing types			✓	✓			PC
Landscape Requirements	Update screening requirements between residential and non-residential uses to more adequately require buffers to reduce impacts of noise, light, and traffic from more intense uses			✓	✓			PC
Signage	Revise sign regulations to be content neutral: by type, location, and size, not by use (political, religious, gas station etc.)			✓	✓			PC; attorney
Site Design	Move site development standards in the zoning ordinance out of the business district sections into a general section that can also apply to multiple-family development (landscape, parking lot design and landscaping, waste receptacles, building design)			✓	✓			PC
Zoning	Establish maximum setbacks and façade design guidelines for all districts.			✓	✓			PC
Zoning	Reorganize and modernize zoning ordinance to be more user-friendly			✓	✓			PC; Consultant
Industrial	Revise industrial districts to permit retail, R&D and tech-related uses to enhance growth.			✓	✓			PC

## E. Zoning Plan

Zoning is a key mechanism for achieving the desired land use pattern and quality of development advocated in the plan. This section provides a useful guide relative to the inconsistencies between current zoning patterns and proposed future land use designations.

Because the Future Land Use Plan is a long range vision of how land uses should evolve over time, it should not be confused with the Township's zoning map, which is a current (short-term) mechanism for regulating development. Therefore not all properties should be immediately rezoned to correspond with the plan. The Future Land Use Plan is intended to serve as a guide for land use decisions over a longer period of time (5+ years).

Review of the Existing Land Use map in comparison to the Future Land Use map reveals a gradual transition to the planned land use pattern. Achievement of this goal will be gradual particularly where established businesses and homes are located in areas intended for other types of uses in the long term.

In addition, the Future Land Use map is generalized. Zoning changes in accordance with the plan should be made gradually so that change can be managed. The Future Land Use map as well as the plan's goals and strategies should be consulted to judge the merits of a rezoning request.

The plan categories correspond to zoning districts, but there is some generalization. The following table provides a zoning plan indicating how the future land use categories in this Master Plan relate to the zoning districts in the zoning ordinance. In certain instances, more than one zoning district may be applicable to a future land use category.

Some districts will need to be amended to incorporate the recommendations of this plan:

- a new mixed-use, form-based or planned unit development (PUD) option for Bluegrass Center
- incorporate more flexible uses and greater design requirements in the commercial and industrial districts
- consider simplifying residential districts to allow a wider variety of housing types and include greater design requirements for attached units

Zoning	Future Land Use	Rural Preservation	Rural Buffer	Residential	Residential - Attached	Manufactured Housing	Bluegrass Center Area	Neighborhood Service	Community Commercial	Commercial/Industrial Mix	Industrial/Employment	Recreation/Institutional
AG, agricultural												
R-1, one-family residential												
R-2A, one and two-family residential												
R-2B, one and two-family residential												
R-3A, apartment and condominiums												
R-3B, medium density apartment and condominiums												
R-4, mobile or modular home												
R-5, single wide mobile home												
OS, office/service												
B-4, general business												
B-5, highway business												
B-6, auto-related highway business												
B-7, retail and service highway business												
New PUD or Mixed-Use district												
I-1, light industrial												
I-2, general industrial												





THE CITY OF  
**MT. PLEASANT, MICHIGAN**

**CITY HALL**

320 W. Broadway St. • 48858-2447  
(989) 779-5300  
(989) 773-4691 fax

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(989) 773-4020 fax

**PUBLIC WORKS**

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(989) 779-5401  
(989) 772-6250 fax

October 17, 2017

Peter Gallinat – Township Planner  
2010 S. Lincoln Road  
Mt. Pleasant, MI 48858

Dear Peter:

I am writing in response to your letter dated August 29, 2017 regarding the Draft Master Plan Update for the Charter Township of Union. We appreciate the opportunity to review and comment on the proposed plan. The plan was shared with members of our City Commission and Planning Commission for review and comment and none were received.

I would offer the following comment on the proposed plan:

- Future Land Use Map (p. 24): Mission Creek Park, owned by and located within the City of Mt. Pleasant, is shown on the map with a future land use of Recreation/Institutional. It should not be categorized on the map as it falls under the City's planning jurisdiction. The park was annexed by the City on April 16, 1973.

I have also attached comments from Bill Mrdeza, the City's Community Services and Economic Development Director.

I am pleased to see general consistency between the future plans of the township and those of the City particularly with regard to transportation, land use, and character and applaud all involved in the development of the updated plan. As you know, the City plans to begin work on a new Master Plan in 2018 and I look forward to continued work together on developing a consistent vision for the future of our community.

Sincerely

Jacob Kain, AICP  
City Planner

Cc: City of Mt. Pleasant Planning Commission  
Nancy Ridley, City Manager

## Kain, Jacob

---

**From:** Mrdeza, William  
**Sent:** Friday, October 13, 2017 11:24 AM  
**To:** Kain, Jacob  
**Cc:** Ridley, Nancy  
**Subject:** Union Twp Master Plan Comments

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jacob:

Here are my thoughts to pass along to the Township on their draft plan:

- Page 5: The legal name of the Tribe is the Saginaw Chippewa Indian Tribe of Michigan, not the Saginaw Chippewa Tribal Nation
- Page 6: Information about the MMDC is not entirely correct. They should check with Jim McBryde on updated wording for this
- Page 15: Recommendations should include the implementation of the Stormwater Management Plan as modelled by the other area governmental entities
- Page 21: Recommend the Access Management Plan for Mission/Pickard be incorporated into the township zoning ordinance for enforcement purposes, consistent with the practice of the City
- Page 22: It seems the Pickard Corridor is a more appropriate focus area (than the Bluegrass Corridor) for more emphasis on social and civic activities due to its closer proximity to downtown Mt. Pleasant and the Chippewa River. There is also more of an opportunity to strengthen the walkable nature of that area by working together with the City
- Page 24: To be more readable, there should be more contrast between some of the future land use map colors, especially the pink/purple tones

That's about as far as I got or had time for. Thanks for passing along those comments you feel are appropriate.

Bill

*William R. Mrdeza*

William R. Mrdeza  
Community Services & Economic Development Director  
City Of Mt. Pleasant  
320 W. Broadway  
Mt. Pleasant, MI 48858  
Ph. (989) 779-5311  
[wmrdeza@mt-pleasant.org](mailto:wmrdeza@mt-pleasant.org)  
[www.mt-pleasant.org](http://www.mt-pleasant.org)



**COMMUNITY DEVELOPMENT**

200 North Main, Mt. Pleasant, MI 48858

Phone: (989) 773-4061

Fax: (989) 775-6681

September 15, 2017

Peter Gallinat  
Union Township Zoning Administrator  
2010 S Lincoln  
MT Pleasant, MI 48858

RE: Union Township Map Amendment

Mr. Gallinat,

Please be advised that the Isabella County Planning Commission reviewed the submitted draft of the Union Township Master Plan Update at their September 14, 2017 meeting. The Planning Commission had no comments on the master plan. Attached is the excerpt of the unapproved minutes of the meeting related to the review.

If you have any questions, please don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Ray Johnson", is written over a large, stylized, circular scribble.

Ray Johnson  
Planner/Zoning Administrator

No: None

Motion carries.

### **Union Township Map Amendment**

Mr. Johnson reported that the community development office received a map amendment for review from Union Township. The Union Township planning commission recommended approval to their township board to rezone property approximately 3.44 acres of land from one and two family residential to the office service district. The property is adjacent to the proposed is an office district to the south and a multi-family district to the East in the City of Mt. Pleasant. The requested re-zoning is located on the north east corner of E. Bellows and S. Isabella Rd.

The planning commission had no comments on this amendment. Mr. Johnson stated staff will forward a letter back to Union Township indicating the planning commission had no comments.

### **Union Township Master Plan Update**

Mr. Nieporte informed the board that the office has received a draft copy of a master plan update from Union Township. Upon review by staff it appears the future land use is consistent with the County's plan to the north and south of the township. Staff had no other comments or issues with the master plan.

The planning commission had no comments on the master plan update. Mr. Nieporte informed the board that staff will forward a letter to Union Township indicating the planning commission had no comments.

### **Farmland Agreement – Clarke, Denver Township**

Mr. Johnson stated that two applications have been received by River Ridge Farms, Inc. to the Farmland and Open Space Preservation Program (PA116) in Rolland Township. The first application is for 40 acres, the second is for 220 acres. Both are in Section 20 and are for 10 years. All three properties in the two applications are zoned and planned for Agricultural. Staff would note that on the second application the area applied for is 220 acres while the legal description describes the land as 240 acres. The applications appear to be complete.

Mr. Johnson stated that staff will forward a letter to the County Clerk indicating the board had reviewed the farmland agreement and will note the difference in acres on the application and the legal description.

### **PUBLIC COMMENT – None**

**STAFF COMMENTS** – Mr. Nieporte commented that the Coe Township Board has approved a special use permit for 37-39 wind turbines within Coe Township.

Mr. Nieporte commented that the Isabella County Board of Commissioners have approved the text



## Jennifer Loveberry

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**From:** Peter Gallinat  
**Sent:** Friday, October 20, 2017 9:54 AM  
**To:** Jennifer Loveberry  
**Subject:** FW: Master Plan.....Please Print

---

**From:** Brian A. Smith [<mailto:BASmith@sagchip.org>]  
**Sent:** Friday, October 13, 2017 7:39 AM  
**To:** Peter Gallinat  
**Subject:** Master Plan

Good morning Peter:

I just want to make you aware that the Coon parcel located on Isabella Rd. is in trust for the tribe. It is not listed as such in the proposed master plan document.

Thanks,

**Brian A. Smith**  
*Economic Development Director  
Saginaw Chippewa Indian Tribe  
7070 E. Broadway  
Mt. Pleasant MI. 48858  
(989)-775-4091*

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Peter Gallinat, Township Planner  
pgallinat@uniontownshipmi.com  
2010 South Lincoln  
Mt. Pleasant, MI 48858  
Phone 989-772-4600 Ext. 241  
Fax 989-773-1988

---

TO: Planning Commission  
FROM: Township Planner

**New Business**

**SUBJECT: B) SPR 2017-08 Riverwood storage building**

**Applicant:** Richard Figg

**Owner:** Richard Figg

**Location:** 1239 E. Broomfield Rd. MT PLEASANT, MI 48858

**Current Zoning:** R-1 Rural Residential District.

**Adjacent Zoning:** R-1 to the north, R-1/R-2A to the west, B-4 to the south across the road, and R-1/R-2A to the east.

**Future Land Use/Intent:** A-3: Buffer existing agricultural or undeveloped land from new development. Desired uses in this area follow the existing zoning.

**Current Use:** Bowling alley/Golf course/Resort

**Reason for Request:** Applicant request to construct 156' X 60' X 14' storage building for Golf Course

**History:** In July of 2017 a storage facility for Riverwood Resort was destroyed in a fire. The owner has applied to build a new storage facility for the purpose of storing items related to Riverwood resort. The current use of the golf course is a special use allowed in an R-1 property. Country clubs and golf courses are required to have all principal and accessory buildings at least 50' from the property of abutting residential zoned districts. In addition the building must be 200 feet from any existing residential structure.

The current plan as proposed meets these requirements. In one draft of the plan additional access from Broomfield Rd. was proposed. That is no longer the case. Access to the storage building from Broomfield Rd. will come from the existing parking lot. At this time we have approvals from Township Utilities, Isabella County Road Commission, Isabella County Transportation Commission, Mt. Pleasant Fire Department. We do not have an approval letter from the Isabella County Drain Office. The applicant has been in contact with the Drain office.

**Objective of board:** site plan was received (10-03-2017)The Planning Commission shall study the site plan and shall, within sixty days of its submittal to the Zoning Official, either approve or disapprove the proposed site plan. If the site plan is disapproved, the reasons for disapproval shall be stated.

**Recommend at this time approval of SPR 2017-08 on the condition that:**

- Applicant receive approval from the Isabella County Drain Office.

Peter Gallinat  
Twp Planner

## Union Township Site Plan Review Application 2015 Revision

FILL OUT THE FOLLOWING

- I. This application is for (circle one) Preliminary Site Plan Review Final Site Plan Review
- II. Applicant Name RICHARD FIGG
- III. Applicant Address 1239 E. BROOKFIELD RD.
- IV. Applicant Phone 772-5726 Owner Phone SAME
- V. Applicant is (circle) Contractor Architect/Engineer Developer Land Owner (skip V & VI)  
Other
- VI. Land Owner Name RICHARD FIGG
- VII. Land Owner Address 1239 E. BROOKFIELD RD
- VIII. Project/Business Name RIVERWOOD POLE BARN
- IX. Fill out check list that follows. You must check off that each item has been included in the drawing. If an item is not going to be included in the construction, note that in the comment area. For the first three items, check off if you have made the required submittals to other reviewing agencies.

SUBMITTALS TO OTHER AGENCIES	Off	
Storm water management plan approval prior to application. Reviewed by the County Engineer	<input type="checkbox"/>	Copy of Union Township Storm Water Management Plan available upon request. Submit (2) copies of plan and calculations directly to the Isabella County Engineer, contact Bruce Rohrer at (989) 772 0911, ext. 231. Any review fees are additional.
All curb cuts, acceleration/deceleration lanes, additional drives, and other matters pertaining to roads to be approved by MDOT or Isabella County Road Commission prior to application.	<input type="checkbox"/>	MDOT (M 20, BR 127 sites) at (989) 773 7756. Contact Isabella County Road Commission (all other county roads) at (989) 773 7131. Submit (3) copies.
Mt. Pleasant Fire Dept.	<input type="checkbox"/>	Sgt Randy Keeler (989) 779-5122, (2) copies
Isabella Co Transportation Commission (ICTC)	<input type="checkbox"/>	Rick (989) 773 2913, (2) copies
<b>WELLHEAD PROTECTION REPORTING FORMS (Required for all Site Plans)</b>		
Hazardous Substances Reporting Form Part I and II (Forms included in this packet)	<input type="checkbox"/>	Kim Smith (989) 772-4600 ext 224 ksmith@uniontownshipmi.com
PERMIT INFORMATION - DEQ Check List	<input type="checkbox"/>	
<b>SITE PLAN REQUIREMENTS</b>	<b>I Of</b>	<b>Comments - (also indicate any features which will not be included in the development or are not applicable)</b>
Name and addresses of Property Owner	<input type="checkbox"/>	<u>RICHARD FIGG</u> <u>1239 E BROOKFIELD RD</u>
Name and Address of Applicant	<input type="checkbox"/>	
Provide Construction Type (per Mi Building Code) and if sprinkled, (assume Type IVb, un-sprinkled if not provided)	<input type="checkbox"/>	<u>NO</u>

**Union Township Site Plan Review Application 2015 Revision**

<p>The date, north arrow and scale. The scale shall be not less than 1"= 20' for property under three (3) acres and not more than 1"=40' for property greater than three acres.</p>		<p align="center">SEE DRAWINGS</p>
<p>All lot and/or property lines are to be shown and dimensioned, including building setback lines</p>		<p align="center">SEE DRAWINGS</p>
<p>The location and dimensions of all existing and proposed:</p> <p>fire hydrants (within 400 feet of building) - - -</p> <p>drives, -----</p> <p>sidewalks, (required ) -----</p> <p>curb openings, -----</p> <p>acceleration/deceleration lanes, -----</p> <p>signs, -----</p> <p>exterior lighting on buildings and parking lots, - -</p> <p>parking areas (Including handicapped parking spaces, barrier-free building access, unloading areas), -----</p> <p>recreation areas, -----</p> <p>common use areas, -----</p> <p>areas to be conveyed for public use and purpose. -</p>	<p>NO</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>	<p align="center">ON BUILDING</p>
<p>Elevation of building front, side, and back. Include Sign size, height, and design. Canopy heights extending over driveways accommodate Public Transportation</p>		<p align="center">WITH DRAWING</p>
<p>Source of utilities. Public water and sewer approval by Union Township Utility Coordinator prior to application.</p>		<p>Note: Union Township policy is to issue sewer and water permits after application for a building permit. Applicant is advised to contact the utility department for availability prior to site plan review. The township does not coordinate other utility matters. Applicant to assure himself that site is suitable for septic systems, contact Central Michigan District Health Department</p>
<p>All dumpsters shall be screened from public view with an opaque fence or wall no less than six feet in height. Show location. (Note most refuse contractors require concrete pad to place dumpsters upon)</p>		<p align="center">NONE</p>
<p>The location and right-of-way width of all abutting roads, streets, alleys and easements.</p>	<p>NO</p>	
<p>A locational sketch drawn to scale giving the section number and the nearest crossroads.</p>	<p>YES</p>	





**Union Township Site Plan Review Application 2015 Revision**

I submit the site plan and this application as a true representation of existing and proposed conditions. I agree to install all features as shown and to abide by conditions placed upon approval of this plan by the Union Township Planning Commission . False or inaccurate information placed upon this plan may be cause for revocation of any permits issued pursuant to site plan approval and / or removal of work installed. Any changes to the Site Plan now or in the future must be approved by the Union Township Planning Commission or Zoning Administrator. Approval of this plan shall not constitute the right to violate any provisions of the Union Township Zoning Ordinance 1991-5, or other applicable building or state codes and or laws.

Richard C. Fioy  
Signature of Applicant

October 3, 2017  
Date

\_\_\_\_\_  
Signature of Owner (if other than applicant)

\_\_\_\_\_  
Date

PLEASE PLACE OUR REVIEW ON THE OCTOBER 17, 2017 (INSERT DATE)  
PLANNING COMMISSION MEETING. An owners representative WILL / WILL NOT attend. You will not receive a reminder of the scheduled meeting.

**Union Township Site Plan Review Application 2015 Revision**

<u>Township use</u>	Review Comments
File # _____	_____
Fee Paid initial _____	_____
Receipt # _____	_____
Date received _____	_____
Date review completed by Zoning Administrator _____	
Place on the _____ Planning Commission Agenda	
Planning Commission Decision _____	_____



# PERMIT INFORMATION

[www.michigan.gov/deqpermits](http://www.michigan.gov/deqpermits)

The Department of Environmental Quality (DEQ) has prepared a list of key questions to help identify what DEQ permits, licenses, or approvals of a permit-like nature may be needed. By contacting the appropriate offices indicated, you will help reduce the possibility that your project or activity will be delayed due to the untimely discovery of additional permitting requirements later in the construction process. While this list covers the existence of permits and approvals required from the DEQ, it is not a comprehensive list of all legal responsibilities. A useful way to learn whether other requirements will apply is to go through the Self-Environmental Assessment in the Michigan Guide to Environmental, Health, and Safety Regulations, online at: <http://www.michigan.gov/ehsguide>. Please call the Environmental Assistance Center at 800-662-9278 to talk with any of the DEQ programs noted below.

KEY QUESTIONS:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	PROGRAM WEBPAGE AND CONTACTS
<b>MISCELLANEOUS CONSTRUCTION</b>			
<i>Air Quality Permit to Install:</i> Will your business involve the installation or construction of any process equipment that has the potential to emit air contaminants (e.g. dry sand blasting, boilers, standby generators)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Air Quality Division (AQD), <u>Permit Section</u>
<i>Asbestos Notification:</i> Does the project involve renovating or demolishing all or portions of a building? Notification is required for asbestos removal and required for all demolitions even if the structure never contained asbestos.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AQD, <u>Asbestos Program</u>
<i>Land and Water Featured Programs (Water Resources Division) - USACE Consolidated Permits:</i> Please consult the <u>Land and Water Management Decision Tree</u> document to evaluate whether your project needs a land and water management permit (i.e., Does the project involve filling, dredging, placement of structures, draining, or use of a wetland?).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Resources Division (WRD), <u>Joint Permit Application</u>
<i>Soil Erosion and Sedimentation Control:</i> Does the project involve an earth change activity (including land balancing, demolition involving soil movement, and construction)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Soil Erosion and Construction Storm Water</u> , or Contact your <u>Local Agency</u>
<i>NPDES Storm Water Discharge from Construction Sites Notice of Coverage:</i> Does the project involve construction which will disturb one or more acres that come into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NPDES <u>Storm Water Permits Program</u> , or appropriate <u>DEQ District Office</u>
<i>Public Swimming Pool Construction (Spas/Hot Tubs) Permits:</i> Will your business involve the construction or modification of a public swimming pool, spa or hot tub?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Public Swimming Pool Program</u> , or appropriate <u>DEQ District Office</u>
<i>Threatened and Endangered Species:</i> Does the project involve activities that would destroy a protected species of plant or animal or disturb a protected animal species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Endangered Species Assessment, Threatened and Endangered Species Program</u> , 517-373-1552
Does the project involve <i>construction</i> or alteration of any <i>sewage collection or treatment</i> facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Appropriate <u>District Office</u> , WRD, Part 41 Construction Permit Program
Does the project involve construction of a facility that landfills, transfers, or processes of any type of <i>solid non-hazardous waste</i> on-site, or places <i>industrial residuals/sludge</i> into or onto the ground?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Office of Waste Management and Radiological Protection (OWMRP), <u>Solid Waste</u> , Appropriate <u>DEQ District Office</u>
Does the project involve the construction of an on-site treatment, storage, or disposal facility for <i>hazardous waste</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	OWMRP, Hazardous Waste Section, <u>Treatment, Storage and Disposal</u>
<b>WATER SUPPLY (More information, see: <a href="http://www.michigan.gov/deqwater">http://www.michigan.gov/deqwater</a>, select "drinking water")</b>			
I am buying water from my community water supply (i.e. city of Detroit or Grand Rapids)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Contact your <u>Local Water Utility</u>
I have a private or other water supply well (Type III)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Contact your (District or County) <u>Local Health Department</u>
I have a Non-Community Water Supply (Type II)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Guide</u> , Contact your (District or County) <u>Local Health Department</u>
I am a community water supply (Type I)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Community Water Supply</u> , <u>DEQ District Office Community Water Supply Program</u>



WASTEWATER MANAGEMENT			
<i>Storm Water Discharge to Wetlands:</i> Will storm water be collected, stored, or treated in a wetland area from a public road, industrial, commercial, or multi-unit residential development?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Great Lakes:</i> Does the project involve construction, filling, or dredging below the Ordinary High Water Mark of one of the Great Lakes?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Inland Lakes and Streams:</i> Does the project involve any dredging, filling, placement of structures, or the operation of a marina within an inland waterbody (e.g. lake, river, stream, drain, creek, ditch, or canal), enlargement of a waterbody, or excavation of a pond within 500 feet of a waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
<i>Storm Water Ponds and Discharges to Inland Lakes/Streams, or Great Lakes:</i> Will storm water from any road or any other part of the development be discharged either directly or ultimately to an inland waterbody, or one of the Great Lakes; or will a storm water pond be constructed within 500 feet of an inland waterbody?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve placement of fill, earth moving, or placement of structures within the 100-year <i>floodplain</i> of a watercourse?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Joint Permit Application</u>
Does the project involve construction of a building or septic system in a designated Great Lakes <i>high risk erosion area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project involve dredging, filling, grading, or other alteration of the soil, vegetation, or natural drainage, or placement of permanent structures in a designated <i>environmental area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Shoreland Management</u>
Does the project propose any development, construction, silvicultural activities or contour alterations within a designated <i>critical dune area</i> ?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Sand Dune Management</u>
Does the project involve construction of a <i>dam</i> , weir or other structure to impound flow?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Dam Safety Program</u>
CONSTRUCTION PERMITS (SECTOR SPECIFIC)			
Does the project involve the construction or alteration of a water supply system or sewage disposal system for a manufactured housing project?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Drinking Water & Municipal Assistance (ODWMA)
Does the project involve a subdivision or site condominium project utilizing individual on-site subsurface disposal systems or individual wells?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA
Does the project involve the construction or modification of a campground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds program</u>
Does the project involve the construction or modification of a public swimming pool?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	ODWMA, <u>Swimming pools program</u>
OPERATIONAL PERMITS			
<b>Renewable Operating Permit:</b> Does your facility have the potential to emit any of the following: 100 tons per year or more of any criteria pollutant; 10 tons per year or more of any hazardous air pollutant; or 25 tons per year or more of any combination of hazardous air pollutants?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	AQD, <u>Permit Section</u>
<b>NPDES:</b> Does the project involve the discharge of any type of wastewater to a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office</u> , or <u>National Pollutant Discharge Elimination (NPDES) Permit Program</u>
Does the facility have industrial activity that comes into contact with storm water that enters a storm sewer, drain, lake, stream, or other surface water?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Permits Section</u> , or appropriate <u>DEQ District Office</u>
Does the project involve the discharge of wastewaters into or onto the ground (e.g. subsurface disposal or irrigation)?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	WRD, <u>Groundwater Permits Program</u>
Does the project involve the drilling or deepening of wells for waste disposal?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Office of Oil, Gas and Minerals (OOGM)
Does the project involve landfilling, transferring, or processing of any type of solid non-hazardous waste on-site, or placing industrial residuals/sludge into or onto the ground?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	<u>OWMRP</u> or Appropriate <u>DEQ District Office</u>

Does the project involve the on-site treatment, storage, or disposal of hazardous waste?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	OWMRP, <u>Hazardous and Liquid Waste</u>
Does the project require a site identification number (EPA number) for regulated waste activities (used oil, liquid waste, hazardous waste, universal waste, PCBs)? ( <u>Web Site</u> )	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, Appropriate <u>DEQ District Office</u>
Does the project involve the receipt, possession, manufacture, use, storage, transport, transfer, release, or disposal of radioactive material in any form?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Material and Standards Unit</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP <u>Radioactive Material and Standards Unit</u>
Do you desire to develop a withdrawal of over 2,000,000 gallons of water per day from any source other than the Great Lakes and their connecting waterways? Or, do you desire to develop a withdrawal of over 5,000,000 gallons of water per day from the Great Lakes or their connecting waterways?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, DWEHS, <u>Source Water Protection Unit</u>
<b>CHEMICAL ADDITION PROJECTS</b>		
Are you using chemicals or materials in, or in contact with, drinking water at any point in the water works system?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, Appropriate <u>DEQ District Office, Public Water Supply Program</u>
Are you applying a chemical treatment for the purpose of aquatic nuisance control (pesticide/herbicide etc) in a water body (i.e. lake, pond or river)? (5.	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Aquatic Nuisance Control</u> and Remedial Action Unit
Are you applying materials to a water body for a water resource management project (i.e. mosquito control treatments, dye testing, or fish reclamation projects)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Surface Water Assessment Section</u>
<b>OPERATIONAL PERMITS (SECTOR SPECIFIC)</b>		
Does the project involve the transport of some other facility's non-hazardous liquid waste?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does the project involve the transport hazardous waste?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Transporter Program</u>
Does your facility have an electric generating unit that sells electricity to the grid and burns a fossil fuel?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	AQD, <u>Acid Rain Permit Program</u>
Is the project a dry cleaning establishment utilizing perchloroethylene or a flammable solvent in the cleaning process?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DEQ, AQD, <u>Dry Cleaning Program</u>
Does your laboratory test potable water as required for compliance and monitoring purposes of the Safe Drinking Water Act?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DEQ, <u>Laboratory Services Certifications</u>
Does the project involve the generation of medical waste or a facility that treats medical waste prior to its disposal?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Medical Waste Regulatory Program</u>
Does the project involve transport of septic tank, cesspool, or dry well contents or the discharge of septage or sewage sludge into or onto the ground?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Septage Program</u>
Do you store, haul, shred or process scrap tires?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Scrap Tire Program</u>
Does the project involve the operation of a public swimming pool?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Public Swimming Pools Program</u>
Does the project involve the operation of a campground?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Campgrounds</u>
Do you engage in the business of hauling bulk water for drinking or household purposes (except for your own household use)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ODWMA, <u>Water Hauler Information</u>
<b>PERSONAL LICENSES/CERTIFICATIONS</b>		
Are you designated by your facility to be the Certified Operator to fulfill the requirements of a wastewater discharge permit (NPDES including Storm	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Operator Training, Storm Water Program</u>

<b>Water or Groundwater)?</b>		
Are you a drinking water operator in charge of a water treatment or water distribution system, back-up operator, or shift operator?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Operator Training</u>
Are you a water-well drilling contractor, pump installer, dewatering well contractor or dewatering well pump installer?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	WRD, <u>Well Construction Unit</u>
<b>OIL, GAS AND MINERALS</b>		
Do you want to operate a central production facility (applies to oil and gas production facilities where products of diverse ownership are commingled)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Petroleum Geology and Production Unit</u>
Does the project involve the removal of sand from a sand dune area within two (2) miles of a Great Lakes shoreline?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, Minerals and Mapping Unit, <u>Sand Dune Mining Program</u>
Does the project involve the diversion and control of water for the mining and processing of low-grade iron ore?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the surface or open-pit mining of metallic mineral deposits?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the mining of nonferrous mineral deposits at the surface or in underground mines?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve mining coal?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Do you want to change the status of an oil or gas well (i.e. plug the well)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve drilling of oil, gas, brine disposal, secondary recovery, or hydrocarbon storage wells?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve plugging or deepening of an oil or gas well, or conveying rights in the well as an owner to another person?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Permits and Bonding Unit</u>
Does the project involve changing the status or plugging of a mineral well?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve the drilling or deepening of wells for brine production, solution mining, storage, or as test wells?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OOGM, <u>Minerals and Mapping</u>
Does the project involve decommissioning or decontamination of tanks, piping, and/or appurtenances that may have radioactive levels above background?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	OWMRP, <u>Radioactive Protection Programs</u>
<b>STORAGE TANKS (CONSTRUCTION AND OPERATION)</b>		
Does the project involve the installation of an aboveground storage tank for a flammable or combustible liquid (under 200 degrees Fahrenheit)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Michigan Department of Licensing and Regulatory Affairs (DLARA) - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a compressed natural gas dispensing station with storage?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a liquefied petroleum gas container filling location or storage location that has a tank with a capacity of more than 2,000 gallons or has two (2) or more tanks with an aggregate capacity of more than 4,000 gallons?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation, removal, or upgrade of an underground storage tank containing a petroleum product or a hazardous substance?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>
Does the project involve the installation of a hydrogen system?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	DLARA - <u>Storage Tank Unit, 517-335-7211</u>

# CHARTER TOWNSHIP OF UNION

## SITE PLAN REVIEW HAZARDOUS SUBSTANCES REPORTING FORM

This form must be completed and submitted as part of the site plan for facilities which may use, store, or generate hazardous substances or polluting materials (including petroleum-based products)

Name of business: RIVERWOOD

Name of business owner(s): RICHARD FIGG

Street and mailing address: 1239 E. BROOMFIELD RD  
MT. PLEASANT, MI 48858

Telephone: \_\_\_\_\_

Fax: 989-772-5726

Email: 989-773-5346

**I affirm that the information submitted is accurate.**

Owner(s) signature and date: *Richard Figg*  
October 3, 2017

Information compiled by: RICHARD FIGG



## Part 1: Management of Hazardous Substances and Polluting Materials

1.  Y  N

Will the proposed facility store, use or generate hazardous substances or polluting materials (including petroleum-based products) now or in the future? If yes, please complete this form and submit with your site plan. A catalogue and map of natural resources on and near the site, including an assessment of groundwater vulnerability is required to be submitted with your plan.

2.  Y  N

~~Will hazardous materials~~  
on-site?

3.  Y  N

Will any hazardous substances or polluting materials be stored on-site? If yes, identify the storage location on the site plan. Describe the size and type of secondary containment structure here or on an attached page. Submit a map and/or diagram of facilities on the site related to groundwater protection, including secondary containment structures, loading/unloading areas, drinking water wells, septic systems, underground storage tanks and storm drain inlets.

4.  Y  N

Will the new underground storage tanks be located less than 2000 feet from a drinking water well serving more than a single household?

5.  Y  N

Are existing underground storage tanks on-site less than 200 feet from a drinking water well serving more than a single household?

If the answer to questions 4 or 5 are yes, you may be in violation of the State of Michigan underground storage tank regulations. For specific requirements, please contact the MDEQ Underground Storage Tank Division. District Office Telephone: 989-894-6200 (Saginaw Bay District Office)

6.  Y  N

Will the interior of the facility have general purpose floor drains? (general purpose floor drains should not be connected to a sanitary sewer system, stormwater drainage system, dry well or septic system). If yes, will the floor drain connect to: (circle one)

- a. on-site holding tank
- b. on-site system

The on-site system must be approved by the MDEQ.

Contact: MDEQ Waste Management Division.

District Office telephone: 989-894-6200 (Saginaw Bay District Office)

7.  Y  N

Will hazardous substances or polluting materials be stored, used, or handled out-of doors near storm drains which discharge to lakes, streams, or wetlands? If yes, describe the type of catch basin or spill containment facilities which will be used (use an attached sheet with diagram if appropriate).

cc: Charter Township of Union Department of Public Works

## Part II: Types and Quantities of Hazardous Substances and Polluting Materials Used, Stored or Generated On-Site

Please list the hazardous substances and polluting materials (including chemicals, hazardous materials, petroleum products, hazardous wastes and other polluting materials) which are expected to be used, stored or generated on-site. Quantities should reflect the maximum volumes on hand at any time. Attach additional pages if necessary to list all hazardous substances and polluting materials.

Common Name	CHEMICAL NAME (components)	Form	MAX QUANTITY ON HAND AT ONE TIME	TYPE OF STORAGE CONTAINERS
FLUORIDE		LIQUID & DRY		
PERMITHER		LIQUID & DRY		
HERBICIDE		LIQUID		
INSECTICIDE		DRY		
VEGETIC ACID		LIQUID		
GRAVITY RESISTANT		DRY		
EMULSIVE DIL		LIQUID		
HYDRAULIC OIL		LIQUID		

KEY:  
 UQ = liquid  
 PLUQ = pressurized liquid  
 S = solids  
 G = gas  
 PG = pressurized gas

KEY:  
 AGT = above ground tank  
 DM = drums  
 UGT = underground tank  
 Cy = cylinders  
 CM = metal cylinders  
 CW = wooden or composition container  
 TP = portable tank

## Jennifer Loveberry

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**From:** Peter Gallinat  
**Sent:** Friday, October 20, 2017 9:20 AM  
**To:** Jennifer Loveberry  
**Subject:** FW: Marty Figg Phone Call

---

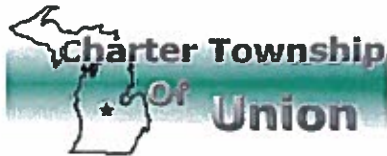
**From:** Kim Smith  
**Sent:** Monday, October 02, 2017 12:58 PM  
**To:** Peter Gallinat  
**Cc:** Mark Stuhldreher  
**Subject:** Marty Figg Phone Call

Peter,

Hi, I just spoke to Marty Figg regarding his site plan for the maintenance shed at Riverwood. The Township does not have any water and sewer in this area so any approvals for water and sewer will be coming from the Central Michigan District Health Department.

Thanks,

**Kim Smith**



Department of Public Works  
Charter Township of Union  
2010 S. Lincoln Road  
Mt. Pleasant, MI 48858  
Phone (989) 772-4600 ext. 224  
Fax (989) 773-1988  
Visit us on the Web at  
<http://www.uniontownshipmi.com>

"This institution is an equal opportunity provider, and employer."

## Jennifer Loveberry

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**From:** Peter Gallinat  
**Sent:** Friday, October 20, 2017 9:16 AM  
**To:** Jennifer Loveberry  
**Subject:** FW: Riverwood

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**From:** Rick Collins [<mailto:rcollins@ictcbus.com>]  
**Sent:** Thursday, October 19, 2017 10:26 AM  
**To:** Peter Gallinat  
**Subject:** Riverwood

Morning Peter.

Not sure what happened but I did not receive an email from you this week. In any case, I have the revised plans from Marty and have no issue with them.



**Rick Collins | Executive Director**  
2100 E. Transportation Dr | Mt. Pleasant, MI 48858  
Phone 989.773.6766 | Fax 989.773.1873  
[rcollins@ictcbus.com](mailto:rcollins@ictcbus.com)  
Visit our website at [ictcbus.com](http://ictcbus.com)



ALL PROPOSED IMPROVEMENTS TO THE COURSE OF ROAD FRONT OF WAY, EXISTING DRIVEWAYS TO OGLF COURSE ARE ABSOLUTE. NO ROAD COMMISSION REVIEWEMENT NO PERMIT NEEDED. PATRICK J. GAFFNEY P.E., ENGINEER SUPERINTENDENT

# 1313 E. BROOMFIELD ROAD

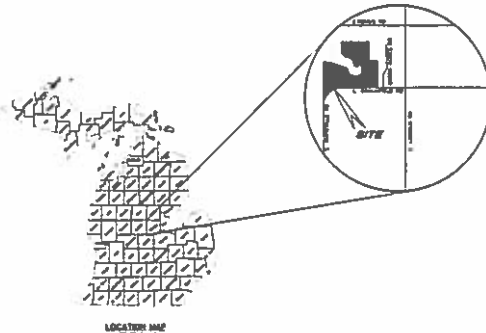
SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

Patrick J.  
Gaffney, PE

Digitally signed by Patrick J. Gaffney, PE  
DN: cn=Patrick J. Gaffney, ou=engineers,  
c=US, mail=gaffp@riverwoodresort.com, o=R  
Date: 2017.12.14 10:09:13 -0500

**CLIENT:**  
RIVERWOOD RESORT  
1313 E. BROOMFIELD ROAD  
MT. PLEASANT, MICHIGAN 48858  
(989) 772-2695

**ENGINEER:**  
D AND M SITE, INC  
P.O. BOX 159  
CARROLLTON, MICHIGAN 48724  
(989) 752-6500



**PLANS/PLAN INFORMATION**

DATE	DESCRIPTION
08/14/2017	ISSUED FOR PERMIT
08/14/2017	ISSUED FOR PERMIT
08/14/2017	ISSUED FOR PERMIT

**LEGEND**

Symbol	Description
---	Proposed Right of Way
---	Proposed Easement
---	Proposed Driveway
---	Proposed Utility
---	Proposed Structure
---	Proposed Access
---	Proposed Survey
---	Proposed Boundary
---	Proposed Easement
---	Proposed Driveway
---	Proposed Utility
---	Proposed Structure
---	Proposed Access
---	Proposed Survey
---	Proposed Boundary



**SHEET INDEX**

- C1.0 - COVER SHEET
- C2.0 - SURVAY PLAN
- C3.0 - SITE PLAN
- C4.0 - OVERALL PLAN

<b>GENERAL NOTES</b>
1. ALL UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF ALL UTILITIES SHOWN AND HAS FOUND NO DISCREPANCIES. THE ENGINEER HAS NOT CONDUCTED TESTS OF ANY UTILITIES SHOWN AND IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY UTILITIES SHOWN. THE ENGINEER HAS NOT CONDUCTED TESTS OF ANY UTILITIES SHOWN AND IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY UTILITIES SHOWN.
<b>ENGINE INFORMATION</b>
DATE: 12/14/2017 TIME: 10:09 AM PROJECT: 1313 E. BROOMFIELD RD
<b>UTILITY NOTES</b>
ALL UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF ALL UTILITIES SHOWN AND HAS FOUND NO DISCREPANCIES. THE ENGINEER HAS NOT CONDUCTED TESTS OF ANY UTILITIES SHOWN AND IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY UTILITIES SHOWN.
<b>UTILITY CONTACTS</b>
TELEPHONE: 811 WEBSITE: www.811.com
<b>DESIGNER</b>
DATE: 12/14/2017 TIME: 10:09 AM PROJECT: 1313 E. BROOMFIELD RD

**RIVERWOOD RESORT**  
1313 E. BROOMFIELD RD  
MT. PLEASANT, MICHIGAN 48858  
(989) 772-2695

**D&M SITE, INC**  
P.O. BOX 159  
CARROLLTON, MICHIGAN 48724  
(989) 752-6500

**C1.0**

2017.372

COVER SHEET



**Mount Pleasant Fire Department**  
**804 E. High Street**  
**Mount Pleasant, Mi 48858**  
**Union Township Site Plan Review**

Tuesday October 17, 2017

Riverwood Resort  
1313 E Broomfield RD  
Mt. Pleasant, MI 48858

A Site Plan Review was conducted on Tuesday October 17, 2017 and revealed the following requirements listed below.

ORDER TO COMPLY: Since these conditions are contrary to code, you must correct them upon receipt of this notice. Please provide our department the documentation that verifies compliance with the code.

This list shall not be considered all-inclusive, as other requirements may be necessary, additional requirements are located in Chapter 5 and appendixes B, C, and D of the 2012 Edition of the International Fire Code.

If you have any questions regarding this matter, please feel free to contact me at (989) 779-5122.

---

**Violation Code**

---

1 PROPERTY Identification

Maintenance Shop  
Riverwood Resort  
1313 E. Broomfield

Print Revision 10/6/17

Scope of project: Proposed new building 60 x 156 = 9,360,sq. ft.

Print Received 10/17/17 - Received another revision on 10/17/17 with an increase in building size.

---

ACCESS AND WATER Road and Water Supply

When fire apparatus access roads or water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2 of the 2012 Edition of the International Fire Code.

## Union Township Site Plan Review

### ACCESS ROAD 150 FT Buildings within 150ft of Access Road

All portions of a building are required to be within 150 feet of an approved Fire Department access road, in accordance with Chapter 5, Section 503.1.1 of the 2012 Edition of the International Fire Code.

Site plan does not meet the requirements above. Site plan does not show the entire access route from Broomfield road. Please update site plan to include access back to Broomfield Road entry.

Revision 10/17/17 Site plan meets requirement above.

(RECOMMENDATION ONLY) Due to the remoteness from fire hydrants, the fire department recommends considering type IIB/IIIB construction verses wood frame construction.

---

### ACCESS ROAD LOAD Designed and Maintained to Support the

All fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities in accordance with Chapter 5, Sections 503.2.3 and 503.4 of the 2012 Edition of the International Fire Code.

Roads must be maintained through winter months.

Revision 10/17/17 meets above requirements.

### ACCESS ROAD OBSTRUCTED Dimensions and Clearances

All fire apparatus access roads, including parking lots, shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches in accordance with Chapter 5, Sections 503.2.1, 503.2.2, 503.3 and 503.4 of the 2012 Edition of the International Fire Code. Fire Prevention Ordinance 93.02(D)

Site plan does not meet the above requirement.

Revision 10/17/17 meets the above requirements.

---

### ACCESS ROAD TURN AROUND Turn Around Required when Road in

Provide an approved turn around for dead end fire apparatus access roads in excess of 150' in Length in accordance with Chapter 5, Section 503.2.5 and appendix D, Section D103.4 of the 2012 Edition of the International Fire Code.

## Union Township Site Plan Review

Site plan does not meet the above requirement.

Revision 10/17/17 meets the above requirements.

---

### WATER SUPPLY (SPACING) Number and Spacing of Hydrants

Provide fire hydrant locations in accordance with Chapter 5, Section 507.5.1 of the 2012 Edition of the International Fire Code. The number and spacing of fire hydrants is based on the construction type and square footage of the building in accordance with Appendix B and C and tables B105.1 and C105.1 of the 2012 Edition of the International Fire Code.

The property is not located in close proximity to a municipal water supply system. Requirements would have to be met under NFPA 1142 for rural water supply. The required fire flow for an 9,360sq. ft building is 2500gpm. Per NFPA 1142 Chapter 4 table 4.6.1, the minimum rate required at the incident location is 250gpm. The approximate rate for one 2000 gallon tender and water source located .8 miles from the site location would be 136gpm on scene. A minimum of two 2000 gallon tenders would be required in order to meet the required fire flow.

Fire flow requirements are met by local and mutual aid water tenders. Fire flow requirements may be reduced by changing construction from wood frame to type IIB/IIIB construction.

---

### KNOX BOX Knox Box Requirements and Location

Violation carried over from inspection on 10/06/2017

Violation carried over from inspection on 10/04/2017

Provide a Knox Key entry device and install it in approved location by the Fire Code Official, as in accordance with Chapter 5, Section 506.1, 506.1.1 and 506.2 of the 2012 Edition of the International Fire Code. (Go to [Knoxbox.com](http://Knoxbox.com) and search by fire department or zip code - select "Mt. Pleasant Fire Department" and place order for the type of Knox box desired.)

---

**Keeler, Randy**  
**Lieutenant**  
**Mount Pleasant Fire Department**

# 1313 E. BROOMFIELD ROAD

SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

### CLIENT:

**RIVERWOOD RESORT**  
1313 E. BROOMFIELD ROAD  
MT. PLEASANT, MICHIGAN 48858  
(989) 772-2695

### ENGINEER:

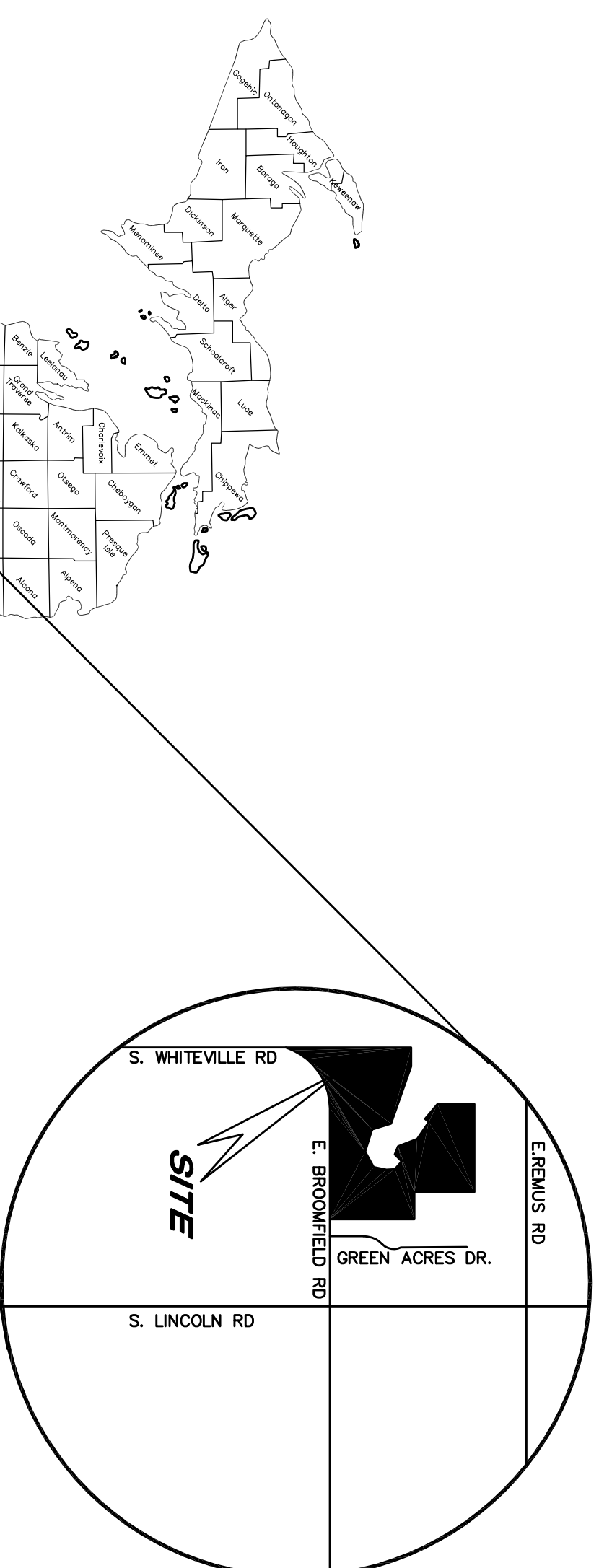
**D AND M SITE, INC**  
P.O. BOX 159  
CARROLLTON, MICHIGAN 48724  
(989) 752-6500

#### FLOODPLAIN INFORMATION

UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN  
MAP NUMBER: 28072003050  
EFFECTIVE DATE: FEBRUARY 5, 2014  
ZONE X OF 0.2% ANNUAL CHANCE FLOOD. AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE. FLOOD AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE BASE FLOOD ELEVATION 788.9 NAVD 88  
ZONE X  
AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

#### LEGEND

●	MONUMENT / SECTION CORNER
○	FOUND PROPERTY IRON
○	SET PROPERTY IRON
□	EXISTING CATCHBASIN
○	EXISTING MANHOLE / CATCHBASIN
○	EXISTING MANHOLE
○	EXISTING HYDRANT
○	EXISTING VALVE
○	EXISTING VALVE BY GENERATOR
○	EXISTING STORM SEWER
○	EXISTING WATERMAIN
○	EXISTING FENCE LINE
○	EXISTING UNDERGROUND ELECTRIC LINE
○	EXISTING UNDERGROUND GAS LINE
○	EXISTING UNDERGROUND TELEPHONE LINE
○	EXISTING CENTERLINE
○	EXISTING CENTERLINE ELECTRICAL WIRING
○	EXISTING CENTERLINE TELEPHONE WIRING
○	EXISTING SIGN
○	EXISTING DECIDUOUS TREES
○	EXISTING CONIFEROUS TREES
○	EXISTING UTILITY POWER POLE
○	EXISTING TELEPHONE RISER



LOCATION MAP  
NOT TO SCALE

#### SHEET INDEX

- C1.0 - COVER SHEET
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#### BENCHMARKS

B.M. #1 - BOLT ON UPPER FLANGE ABOVE 1982, APPROX. 340± N. OF CENTER RD, E. SIDE OF ROAD  
NAVD 88 ELEV. 595.54

#### ZONING INFORMATION

ZONED: R1 (ONE-FAMILY RESIDENTIAL)  
SETBACKS:  
FRONT - 50'  
REAR - 50'  
SIDES - 50' OR 200' FROM THE NEAREST HOUSE

#### UTILITY NOTE

THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND AERIAL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR CONTENT OF ANY UTILITIES. THEREFORE, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION.

#### UTILITY CONTACTS

TELEPHONE	GAS AND ELECTRIC
UNION TOWNSHIP	DIE BARBISON RD
UNION TOWNSHIP	BIG RAPIDS, MI 49307
MT. PLEASANT, MI 48858	(231) 349-2564
(989) 772-4600	

WATER/SEWER	ZONING
UNION TOWNSHIP	UNION TOWNSHIP
UNION TOWNSHIP	UNION TOWNSHIP
2010 S. LINCOLN	2010 S. LINCOLN
MT. PLEASANT, MI 48858	MT. PLEASANT, MI 48858
(989) 772-4600	(989) 772-4600

#### PREPARED UNDER THE SUPERVISION OF:

#### PROJECT LOG

FILE: 2017.372	START DRAWING	09-28-17
PROJECT MGR: JDM	PLANNING COMMISSION & STORMWATER REVIEW	10-03-17
DESIGNED BY:	REVISED PER TWP AND FIRE DEP. REVIEW	10-05-17
DRAWN BY: ZAA	REVISED PER FIRE DEP. REVIEW	10-06-17
CHECKED BY:	REVISED BUILDING LOCATION	10-17-17
SCALE:		
SHEET: 1 OF 4		



MT. Pleasant, Michigan

**RIVERWOOD RESORT**  
1313 E. BROOMFIELD RD

SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

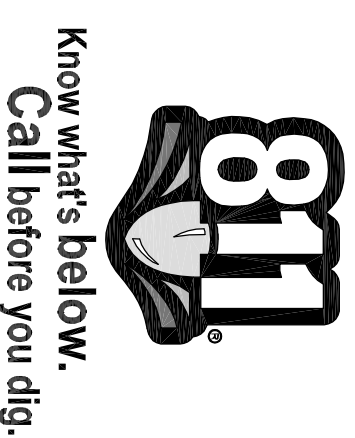
COVER SHEET

**D&M SITE INC.**  
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401 BALSAM STREET PO BOX 159, CARROLLTON, MICHIGAN 48724  
PHONE (989) 752-6500 • FAX (989) 752-8600

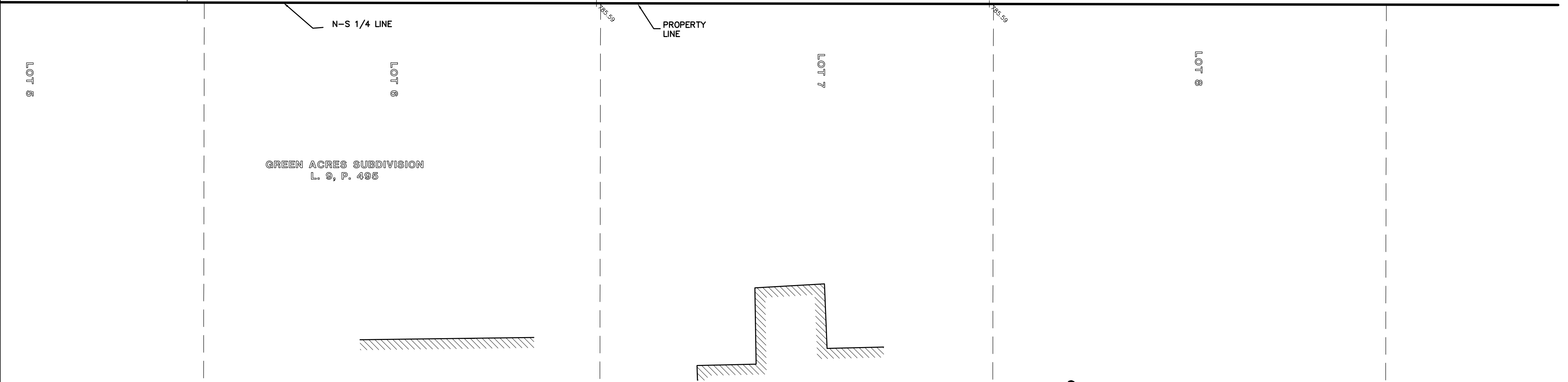
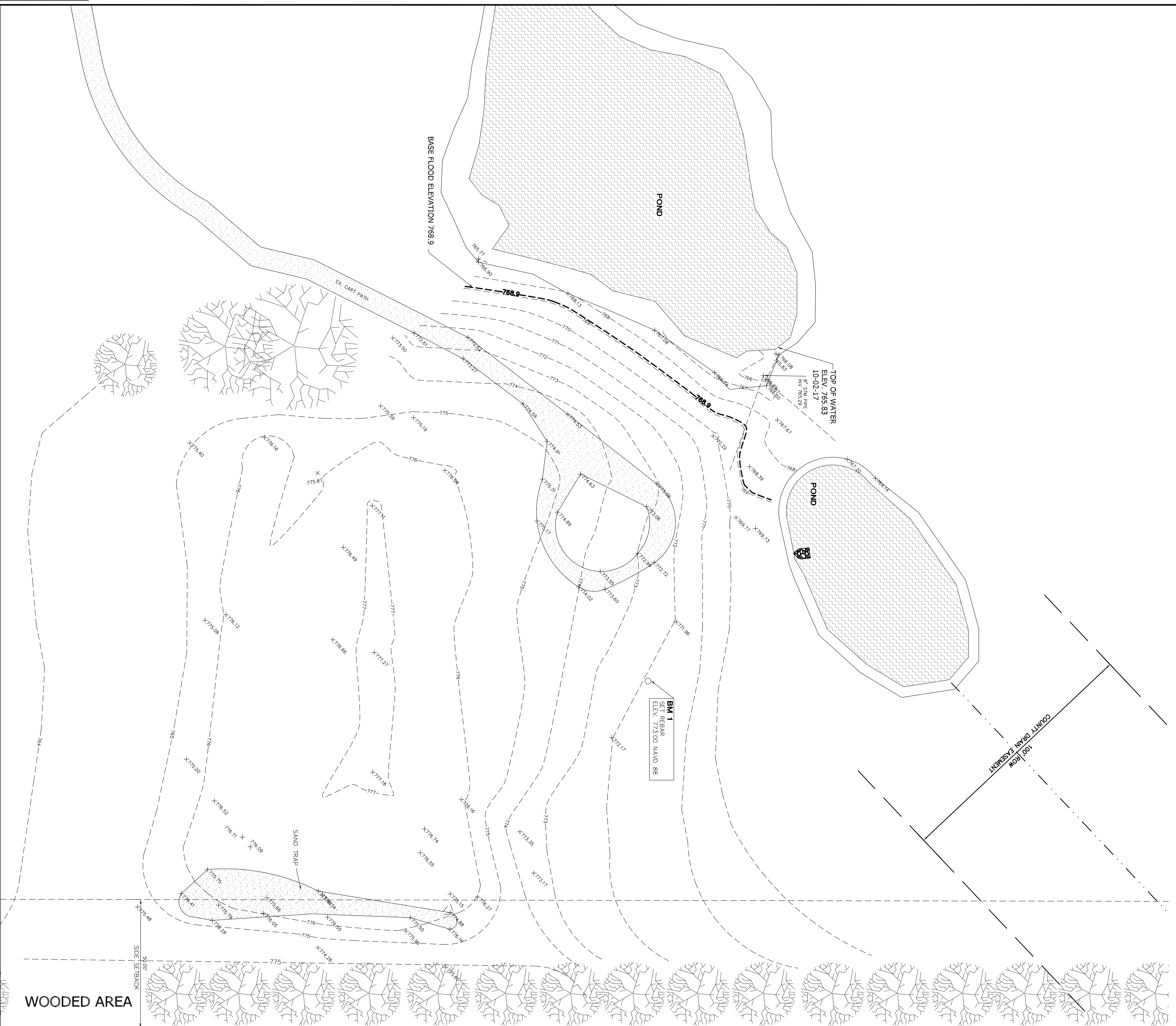


# C1.0

2017.372







**UTILITY CONTACTS**

**TELEPHONE**  
FRONTIER COMMUNICATIONS  
A.M.M. MI. 48501  
(989) 463-5497

**GAS AND ELECTRIC**  
DTE RAPIDSON RD.  
BIG RAPIDS, MI. 49307  
(231) 349-2364

**WATER/SEWER**  
UNION TOWNSHIP  
2010 S. LINCOLN  
MT. PLEASANT, MI. 48858  
(989) 772-4600

**FLOODPLAIN INFORMATION**

UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN  
MAP NUMBER: 280700030SD  
EFFECTIVE DATE: FEBRUARY 5, 2014

AREAS OF 0.2% ANNUAL CHANCE FLOOD: AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE. AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH OF 1 FOOT OR MORE AREAS PROVIDED BY LETTERS FROM 1% ANNUAL CHANCE FLOOD FLOOD ELEVATION 768.9 NAMD 88

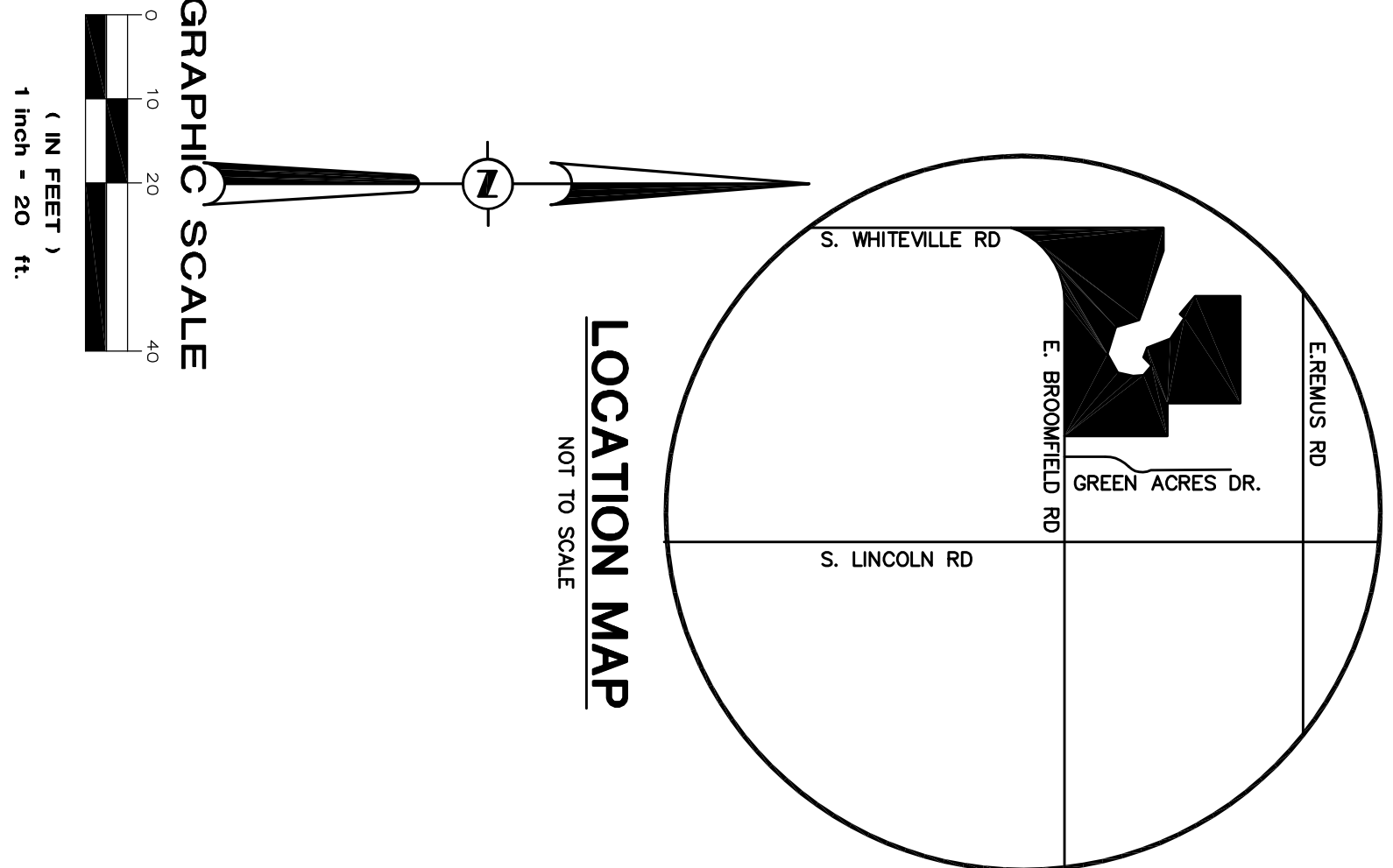
ZONE X  
AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

**ZONING INFORMATION**

SEMI-R (ONE-FAMILY RESIDENTIAL)  
FRONT - 50'  
REAR - 50'  
SIDES - 50' OR 200' FROM THE NEAREST HOUSE

**LEGEND**

MONUMENT / SECTION CORNER	FOUND PROPERTY IRON
SET PROPERTY IRON	EXISTING CATCHBASIN
EXISTING CATCHBASIN	EXISTING MANHOLE / CATCHBASIN
EXISTING MANHOLE	EXISTING HYDRANT
EXISTING VALVE	EXISTING SANITARY SEWER
EXISTING SANITARY SEWER	EXISTING STORM SEWER
EXISTING STORM SEWER	EXISTING FENCE LINE
EXISTING UNDERGROUND ELECTRIC LINE	EXISTING UNDERGROUND GAS LINE
EXISTING UNDERGROUND TELEPHONE LINE	EXISTING CENTERLINE
EXISTING OVERHEAD ELECTRICAL WIRES	EXISTING MAILBOX / NEWSPAPER BOX
EXISTING SIGN	EXISTING DECIDUOUS TREES
EXISTING CONIFEROUS TREES	EXISTING UTILITY OPERABLE
EXISTING UTILITY OPERABLE	EXISTING TELEPHONE TRENCH



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**C2.0**  
2017.372

**RIVERWOOD RESORT**  
1313 E. BROOMFIELD RD  
SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

**SURVEY PLAN**

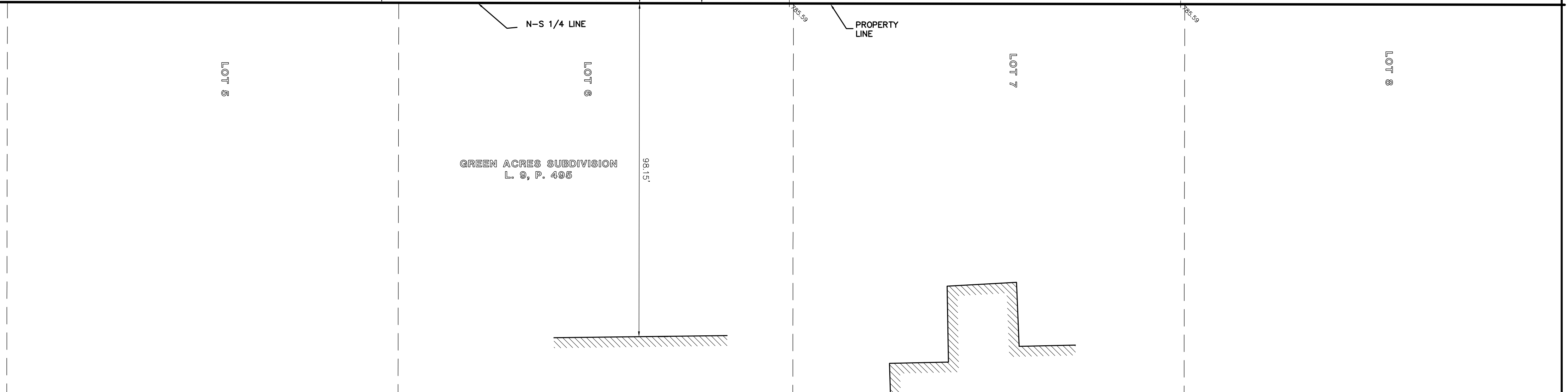
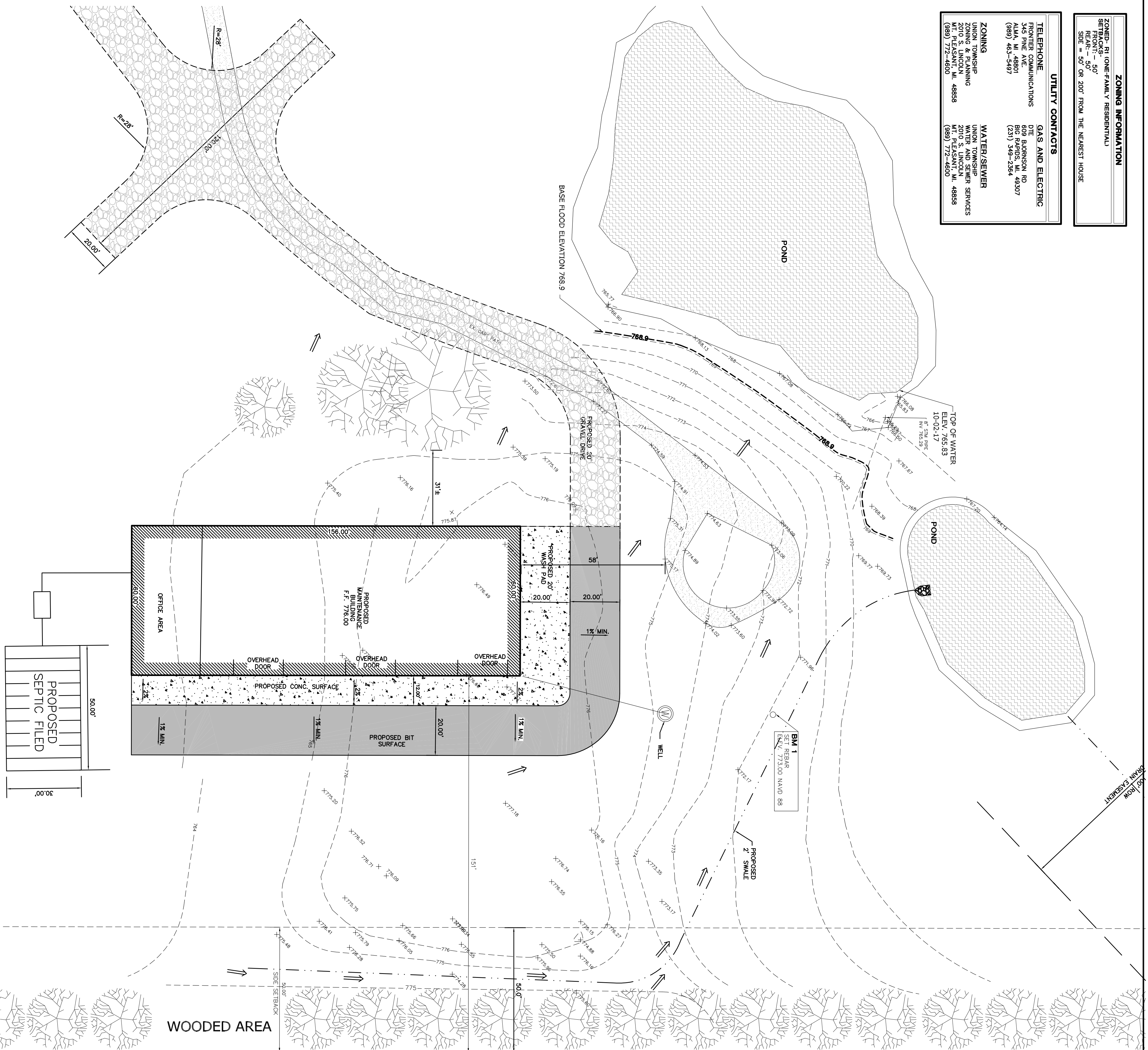
**RIVERWOOD**  
SINCE 1930  
MOUNT PLEASANT, MICHIGAN

FILE:	2017.372	PROJECT LOG	
PROJECT MGR:	JDM	START DRAWING	09-28-17
DESIGNED BY:	ZAA	PLANNING COMMISSION & STORMWATER REVIEW	10-03-17
DRAWN BY:	ZAA	REVISED PER TWP AND FIRE DEP. REVIEW	10-05-17
CHECKED BY:		REVISED PER FIRE DEP. REVIEW	10-06-17
SCALE:	1"=20'		
SHEET:	2 OF 4		

PREPARED UNDER THE SUPERVISION OF:

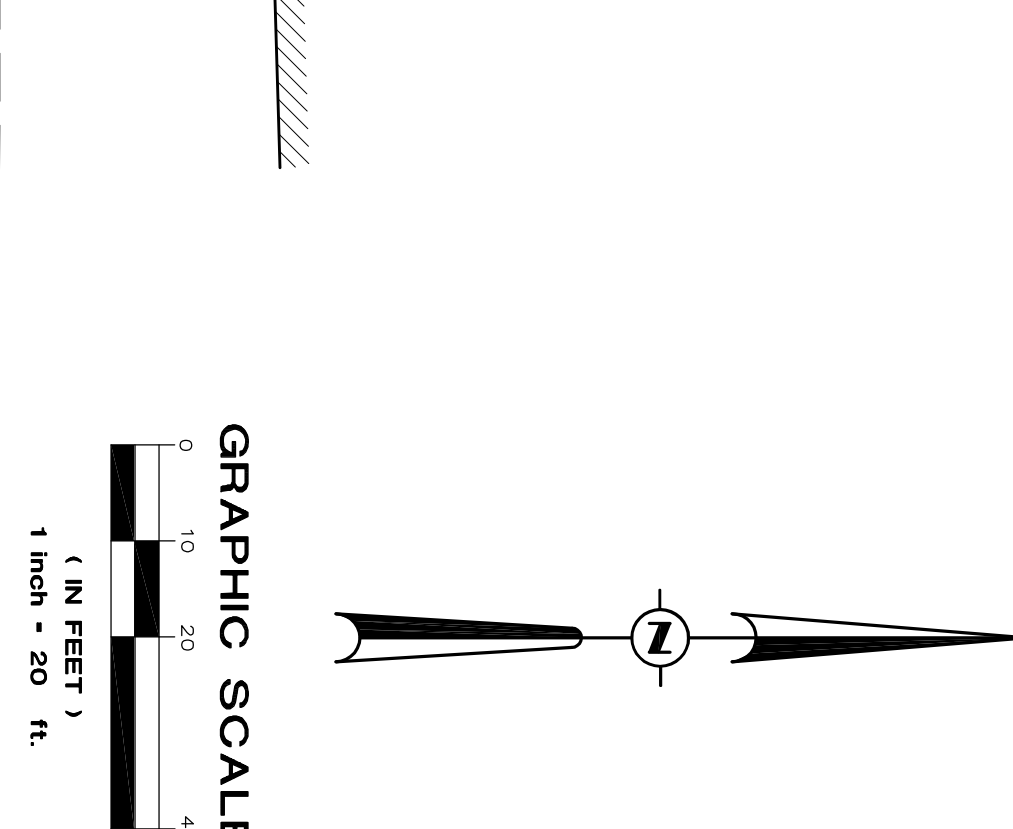


ZONING INFORMATION	
ZONED: R1 (ONE-FAMILY RESIDENTIAL)	
SETBACKS: - 50'	
REAR: - 50'	
SIDE: - 50' OR 200' FROM THE NEAREST HOUSE	
UTILITY CONTACTS	
<b>TELEPHONE:</b> FRONTIER COMMUNICATIONS 345 PINE AVE. ALMA, MI 48801 (989) 483-3497	<b>GAS AND ELECTRIC:</b> DTE BODINSON RD BIG RAPIDS, MI 49307 (231) 348-2324
<b>ZONING:</b> UNION TOWNSHIP ZONING & PLANNING 2010 S. LINCOLN ALMA, MI 48801 (989) 772-4600	<b>WATER/SEWER:</b> UNION TOWNSHIP WATER AND SEWER SERVICES 2010 S. LINCOLN ALMA, MI 48801 (989) 772-4600



FLOODPLAIN INFORMATION	
UNION TOWNSHIP ISABELLA COUNTY, MICHIGAN MAP NUMBER: 26073030305 EFFECTIVE DATE: FEBRUARY 5, 2014	
AREAS OF 0.2% ANNUAL CHANCE FLOOD: AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE. FLOOD AREAS PROTECTED BY LETTERS FROM 1% ANNUAL CHANCE FLOOD. BASE FLOOD ELEVATION 788.9 NAVD 88	
ZONE X AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN	

LEGEND	
○	MONUMENT / SECTION CORNER
○	ROUND PROPERTY IRON
○	SEPTIC TANK
○	EXISTING CATCHBASIN
○	EXISTING MANHOLE/CATCHBASIN
○	EXISTING MANHOLE
○	EXISTING HYDRANT
○	EXISTING VALVE
○	EXISTING SANITARY SEWER
○	EXISTING STORM SEWER
○	EXISTING FIRE LINE
○	EXISTING UNDERGROUND ELECTRIC LINE
○	EXISTING UNDERGROUND GAS LINE
○	EXISTING UNDERGROUND TELEPHONE LINE
○	EXISTING CENTERLINE
○	EXISTING OVERHEAD ELECTRICAL WIRES
○	EXISTING MAILBOX / NEWSPAPER BOX
○	EXISTING SIGN
○	EXISTING DECADUOUS TREES
○	EXISTING CONIFEROUS TREES
○	EXISTING UTILITY POWER POLE
○	EXISTING TELEPHONE RISER



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**RIVERWOOD RESORT**  
1313 E. BROOMFIELD RD  
SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

**SITE PLAN**

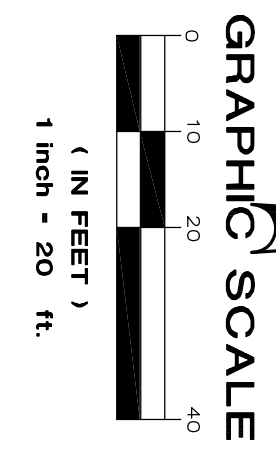
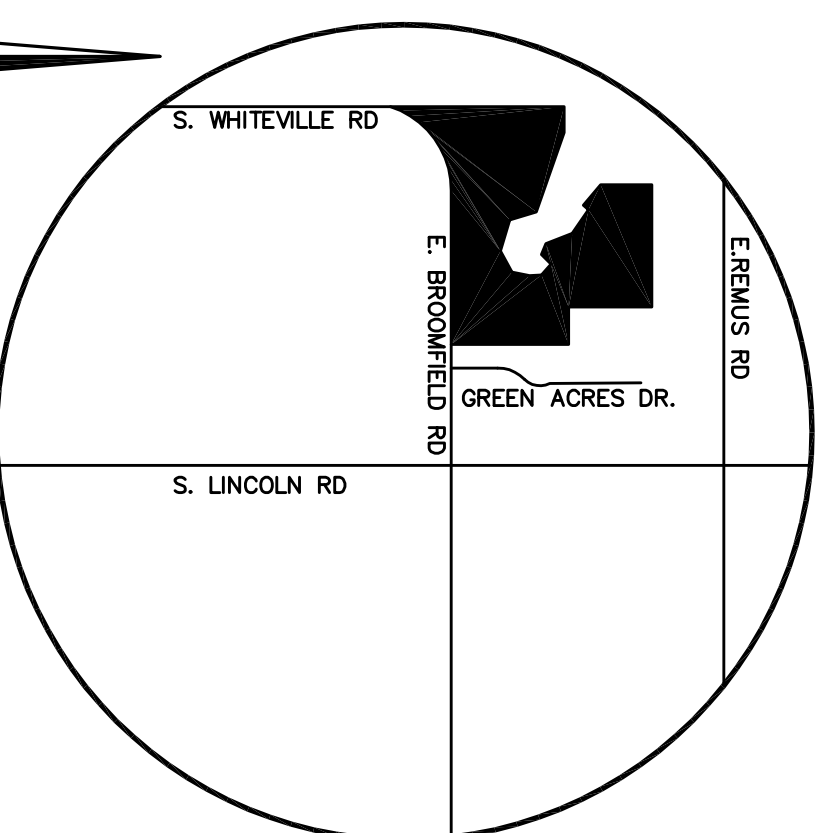
Since 1930  
M.L. PRESSLER, MICHIGAN

PROJECT LOG		
FILE: 2017.372	START DRAWING	09-28-17
PROJECT MGR: JDM	PLANNING COMMISSION & STORMWATER REVIEW	10-03-17
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CHECKED BY:	REVISED BUILDING LOCATION	10-13-17
SCALE: 1"=20'	REVISED BUILDING LOCATION	10-17-17
SHEET: 3 OF 4		

PREPARED UNDER THE SUPERVISION OF:

**C3.0**  
2017.372





LEGEND	
	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	EASEMENT
	EXISTING CATCHASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
	EXISTING STORM SEWER
	EXISTING SANITARY SEWER
	EXISTING WATERMAIN
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX / NEWSPAPER BOX
	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE POLE

ZONING INFORMATION	
ZONED: R1 (ONE-FAMILY RESIDENTIAL)	
SET FRONT: 50'	
REAR: 50'	
SIDES: 50' OR 200' FROM THE NEAREST HOUSE	

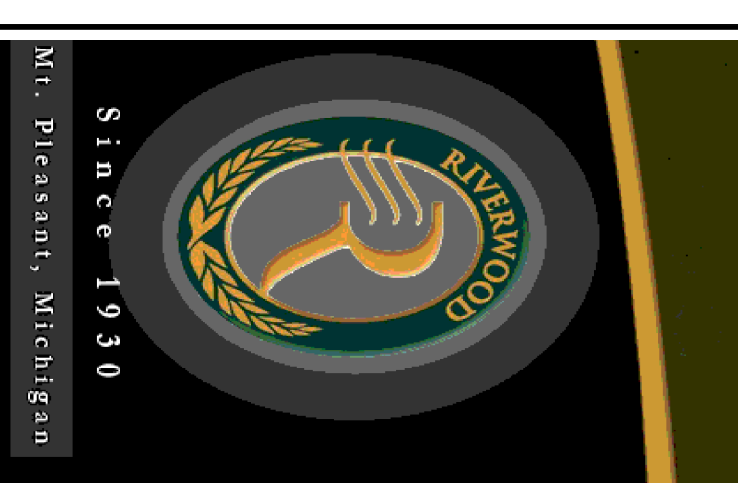
PROJECT LOG		
FILE: 2017.372	START DRAWING	09-28-17
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CHECKED BY:	REVISED BUILDING LOCATION	10-17-17
SCALE: 1"=20'		
SHEET: 4 OF 4		

PREPARED UNDER THE SUPERVISION OF:

**RIVERWOOD RESORT**  
1313 E. BROOMFIELD RD

SECTION 20, T14N-R4W  
UNION TOWNSHIP  
ISABELLA COUNTY, MICHIGAN

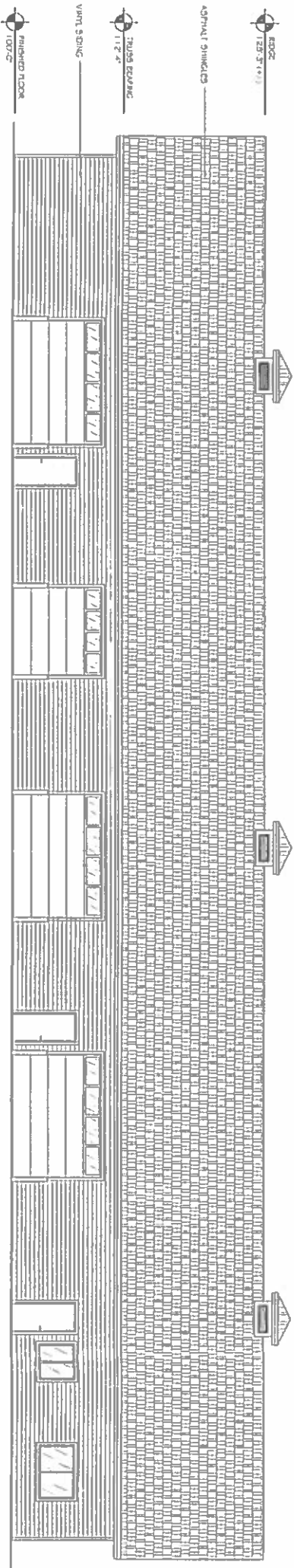
OVERALL PLAN



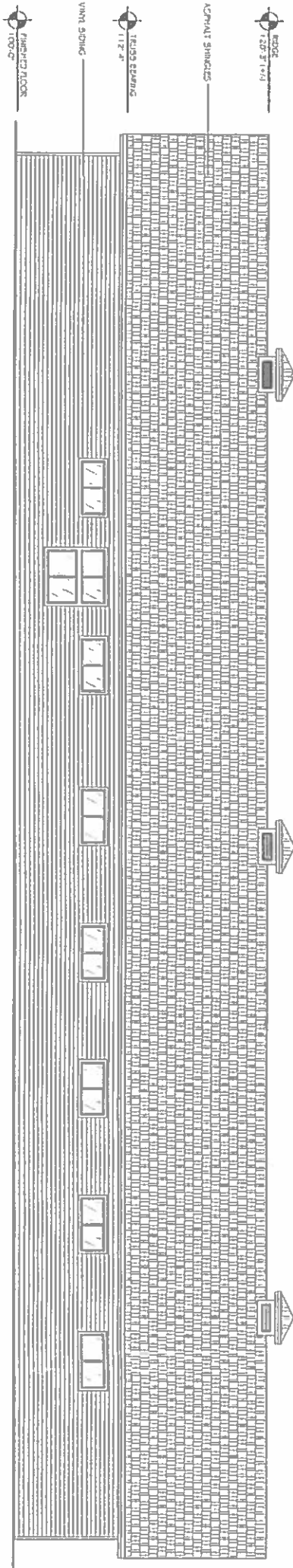
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PHONE (989) 752-6500 • FAX (989) 752-6600

**C4.0**  
2017.372

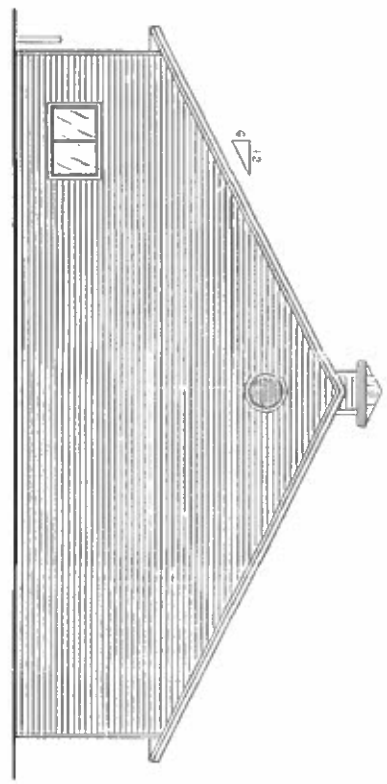




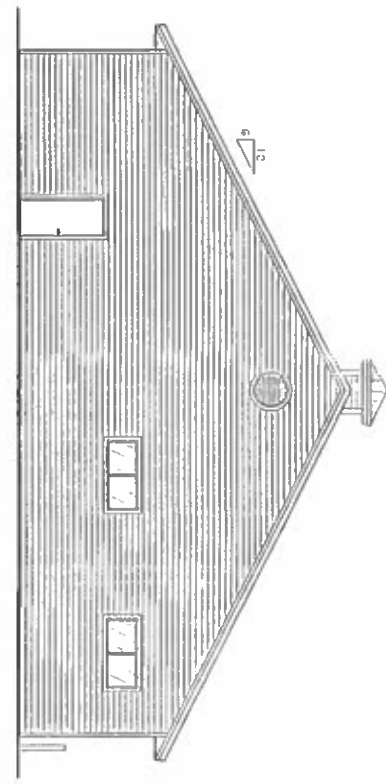
2 EAST ELEVATION  
SCALE 1/8" = 1'-0"



1 WEST ELEVATION  
SCALE 1/8" = 1'-0"



3 SOUTH ELEVATION  
SCALE 1/8" = 1'-0"



5 NORTH ELEVATION  
SCALE 1/8" = 1'-0"

156' X 60' X 14'

PROPOSED MAINT  
**RIVERWO**  
1313 E. BROOMFIELD RD.

PRELIMINARY  
NOT FOR  
CONSTRUCTION

REVISIONS

DRAWN BY:  
N.A.F.

DATE  
09-12-17

PROJECT NUMBER  
A17736

SHEET NUMBER

**A1.00**

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