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**PLAN COMMISSION MEETING**

**VILLAGE OF HARRISON**

**From:**

Trish Nau, Assistant Planner

**Meeting Date:**

September 20, 2022

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**Title:**

Comprehensive Plan Amendment – JJMRS Commercial LLC

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**Issue:**

Should the Plan Commission recommend approval of a Comprehensive Plan Amendment from Farmstead Homes to Commercial?

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**Background and Additional Information:**

The applicant is requesting that his property located at N7099 Horn Road, Tax ID 38768, be changed on the Future Land Use Map from a Farmstead Home to Commercial. The landowner would like to grow his RV Rental and Storage Business on this site. The parcel is located off S. Harwood Road and a half mile north of State Highway 114 in the southeastern corner of the Village. It is also approximately 2 ½ miles from High Cliff State Park offering an RV Rental and Storage opportunity. The only other Commercial property in the vicinity is located 4.5 miles to the southwest on the corner of State Highway 55 and Faro Springs Road, (Bobbers LLC).

Staff recommends that the parcel be split to separate out the residence from the business areas of the property and remain as Farmstead Homes. The rest of the property and outbuildings should be classified as Ag on the Future Land Use Map to complement the surrounding land uses with a Conditional Use Permit issued for the rental and storage business.

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**Findings of Fact:**

- Staff finds that the request corresponds with the Economic Development Goal within the Comprehensive Plan of the Village of Harrison: *“To retain and attract businesses and strengthen the Village of Harrison's local economy by balancing commercial and industrial development through investment and attraction\with residential and agricultural development to create a more vibrant economic climate and livable village.”*
- Staff finds that the request corresponds with the Economic Development Objectives #1, #3, #4 and #5 within the Comprehensive Plan of the Village of Harrison:

*1. Diversify the local economic base so that it keeps pace with the realities of a rapidly changing world economy and does not become threatened by economic downturns in various sectors of the economic base. Diversify the mixture of commercial uses in the village to meet unique market niches and better serve existing neighborhoods.*

*3. Take advantage of the economic development potential of the Village's proximity to the regional highway network. Ensure appropriate transportation connections and appropriate parking facilities to serve retail, commercial and industrial land uses and their needs.*

*4. Develop and maintain an infrastructure that will support current and future commercial*

*activities.*

*5. Increase the proportion of commercial/manufacturing tax base relative to residential tax base. Provide adequate sites for desired commercial/manufacturing/industrial businesses, including a new business/industrial park. This includes maintaining the infrastructure, codes, and ordinances required for the vitality and growth of these types of activities.*

- Staff finds that proper notices were given to amend the Comprehensive Plan.

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**Recommended Action:**

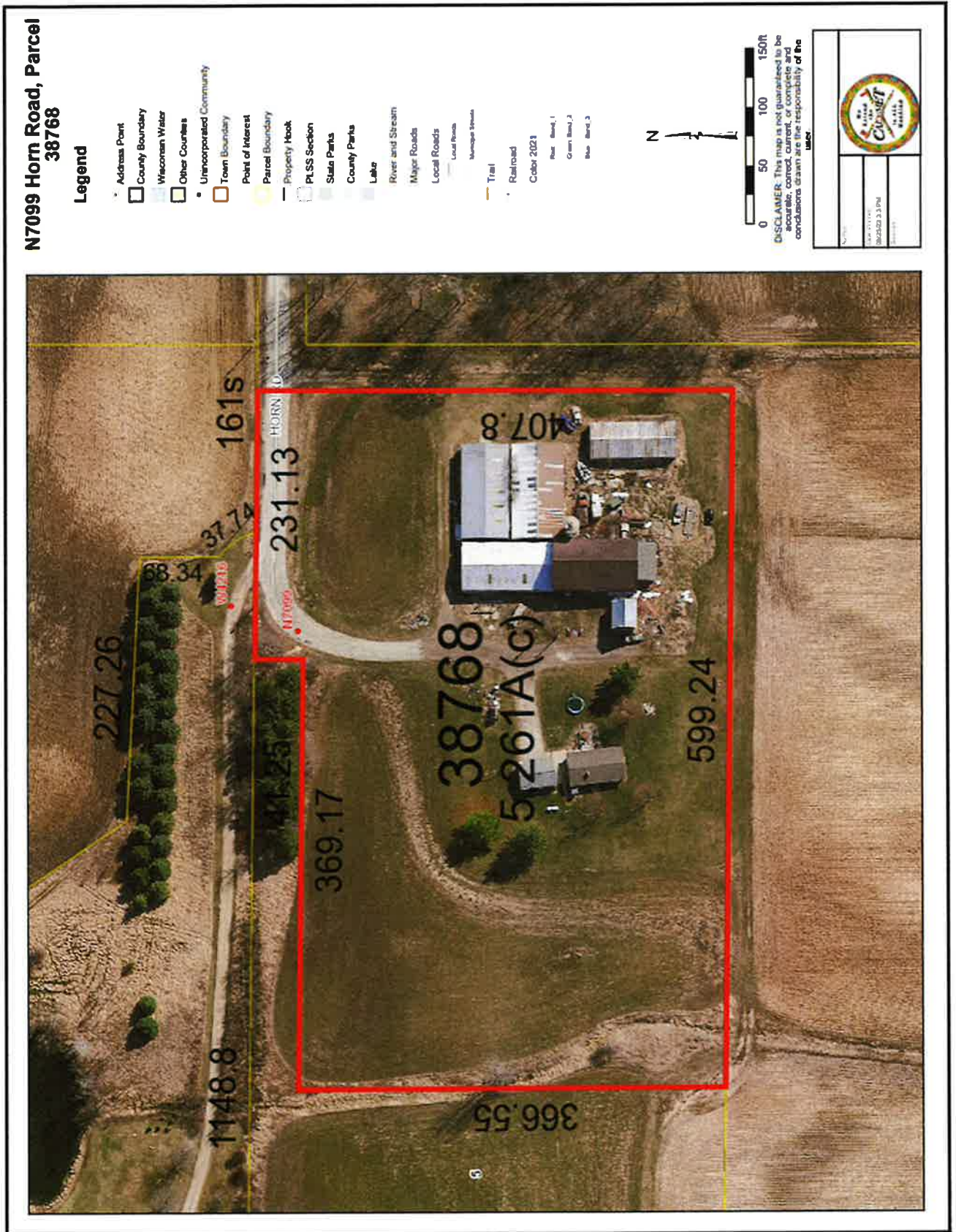
- Staff recommends the application be amended to exclude the residential property from the request.
- Staff also recommends the applicant apply for a Conditional Use Permit for the RV rental and storage business.
- Draft Resolution PC2022-06 is attached if amendment is approved as presented.

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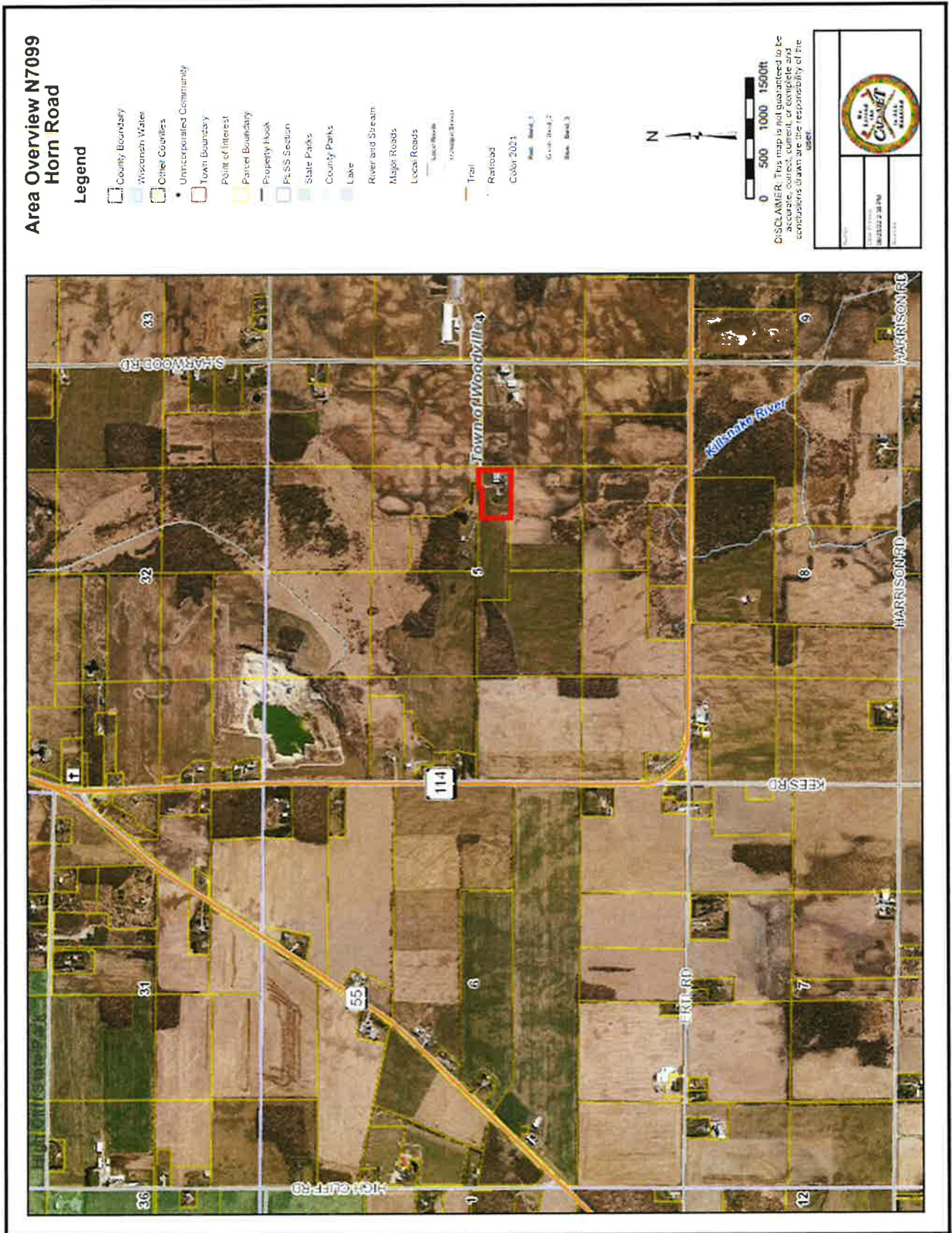
**Attachments:**

- Aerials (2)
- Future Land Use Map
- Village of Harrison Comprehensive Plan Economic Development Chapter
- Draft Resolution PC2022-06

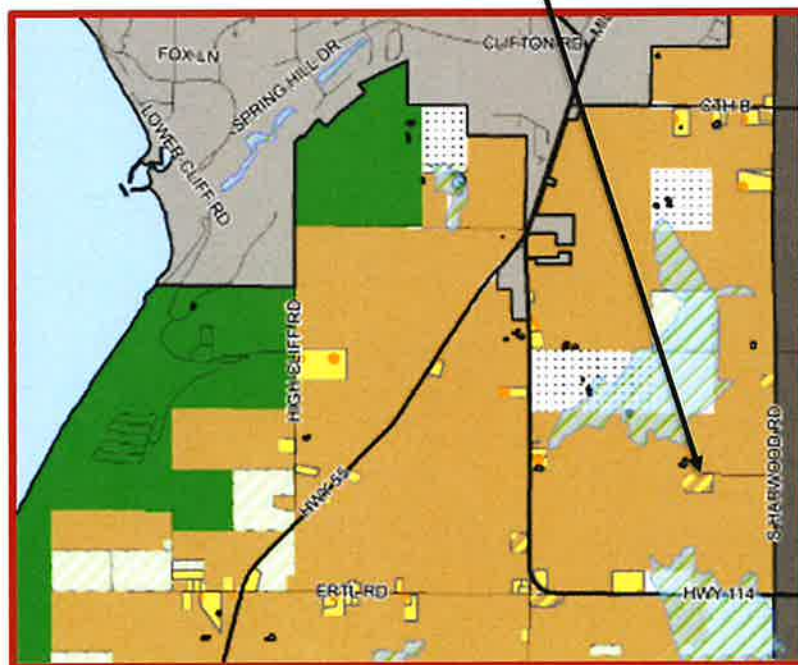
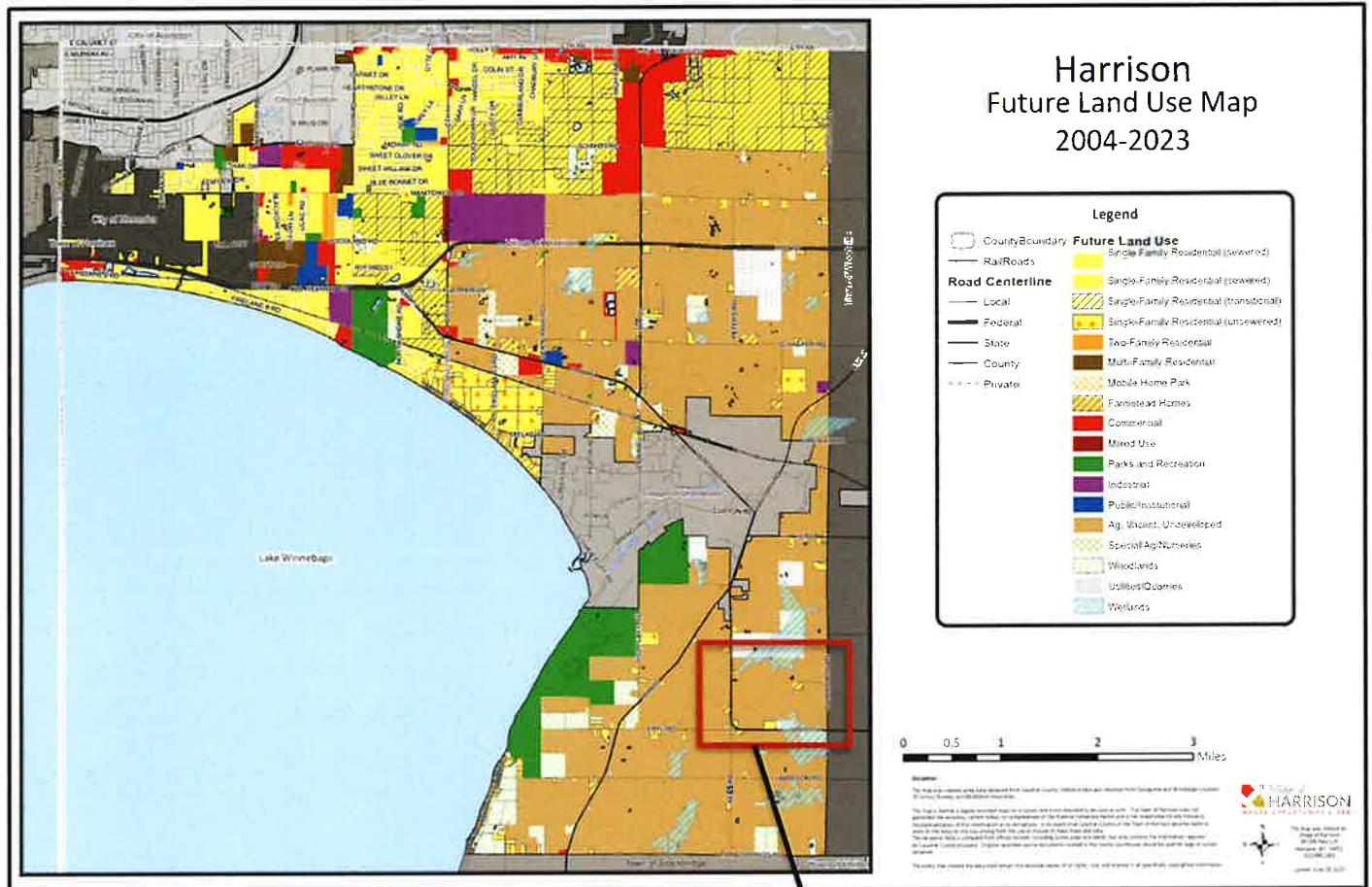
Aerial #1 Parcel



# Aerial #2 Overview



# Future Land Use Map





**ECONOMIC DEVELOPMENT**

# Economic Development

## Introduction

Economic development involves anticipating change, diversifying industries, and redefining opportunities and challenges. It is an outcome of the direct actions of elected and appointed officials in concert with the private sector aimed at promoting the quality of life and economic vitality of the community. These actions involve the interdependent variables of regional competitiveness, human capital, environmental sustainability, workforce development, education, social services, tax base retention and expansion, physical infrastructure, and health and safety.

There are a variety of initiatives, projects, programs, business opportunities, and industry sectors that Harrison can pursue to achieve its economic development objectives. Economic development expenditures are a community investment that affects the quality of life; such as schools, parks and recreation, retention and attraction of residents and businesses, and safe and walkable streets. It is critical that Harrison identifies and plans for the future quality of life needs for the community.

The purpose of this chapter is to describe the current economic conditions of the Village of Harrison, identify opportunities to enhance and diversify the economic base, and create a roadmap for future economic development prosperity.

The Village of Harrison is a rapidly growing community with a diverse economic base. Agricultural uses are scattered throughout the existing Town and Village with heavy concentrations on highways 55, 110, and 114. The Village does have existing land reserved and zoned for an industrial park along Highway N, 114, and Manitowoc Road. The Village also captures part of the tourism economy with the proximity of Lake Winnebago to the southwest and High Cliff State Park to the southeast.

Commercial/Retail development is very limited in the Village and is concentrated to the northern border along the County Rd KK corridor. This is attributable to the existing retail trade area and high traffic exposure of HWY 441 and KK, which will continuously draw retail into this cluster and away from outlying singular areas. However, opportunities exist to create a destination retail development within the Village Center which would create a new attraction model and retail cluster to attract development.

The Village of Harrison can be characterized as 'metropolitanizing' with aspects of a 'dependent' economy. Metropolitanizing communities are defined as communities experiencing a high amount of residential development which causes concern about decreasing land supplies, loss of community identity, maintaining small town character, and avoiding becoming a bedroom community. Dependent communities are characterized as typically an unincorporated area outside of the suburban ring of development. The economic vitality of the community depends on the economic success of the larger adjacent community. The primary challenge for dependent communities is handling local residential development pressure. The Village of Harrison is the newest incorporated municipality in Calumet County and is in competition with adjacent communities in the Fox Valley for economic development opportunities.

## Trade Area and Laborshed Population Trends

The demand for local housing, goods, services and employment are derived from the Village of Harrison's trade area. A trade area is defined as the region from which a majority of this demand is generated. The Primary trade area represents the area from which the bulk of consumer demand is generated, or from which at least 50 percent of all consumers within the boundary are most likely to travel to Harrison to shop. The primary trade area is only intended to represent the area in which residents will shop in Harrison for their regular retail needs; larger or specialty items will usually be purchased in larger or more specialized trade centers with trade areas that

overlap Harrison for those types of goods or services.

The Harrison Trade Area is heavily influenced by the market forces of Appleton and the other trade centers in the Appleton Metropolitan Area. The trade area is also influenced by other nearby competing communities like Sherwood. Because of these local market forces and the current lack of significant commercial activity, the Village's trade area likely does not extend beyond the Village's boundaries, particularly in the Northwest, where much of the remaining portions of the Town do not fall within the Harrison primary trade area at all.

The distance that Harrison businesses extend to draw employees is another relevant regional boundary referenced in this document..

Commonly referred to as the laborshed, the size, demographics, education and occupation of individuals within this area are important factors in company decisions to locate or expand in a region based on the perceived ability to recruit qualified workers at competitive wages.

Information from the 2010 Economic Census, 2015 Esri estimates, 2015 Applied Geographic Solutions estimates, and the UW-Extension Center for Community and Economic Development is used to determine worker characteristics and flows within the region. The size and composition of an area's laborshed significantly influences the type of employers which may be attracted to Harrison based on a need for skilled labor. These daily commuters also represent a significant pool of potential customers for local retailers. On average, workers in rural communities spend approximately \$100 per week on trips associated with the work day. Of course, the availability of retail significantly influences these habits.

There is a significant labor pool available in many sectors which could benefit from Harrison's location and employee base. There are several sectors in which employment in Harrison is more concentrated than in the county, state, or both. Harrison is over-represented in the sectors of agriculture, wholesale trade, and information when compared to the State of Wisconsin. In all of these sectors, Harrison hosts at least 50% more jobs than would be expected according to the average distribution of jobs across these sectors for the state as a whole. Harrison is

underrepresented by at least 25% in the services and finances, insurance, and real estate sectors. Detailed demographic data associated with the Village of Harrison's laborshed and population trends are detailed further in the Market Analysis. Highlights from this section include:

- In 2013, the UW-Madison Applied Population Laboratory and Wisconsin DOA Administration issued a report which projected that Harrison's population would increase by 70% between 2010 and 2040, the fourth fastest rate in Wisconsin.
- The DOA's projections assume the Village and Town of Harrison will continue to exist as separate jurisdictions. As this may not likely be the case if the Town and Village merge, this study includes the total population of both jurisdictions. DOA's projections show Harrison exceeding 15,000 residents before 2030.
- One of the biggest demographic and residential trends facing many communities is an aging population. However, the median age in Harrison is expected to stay relatively stable due to the number of younger families moving into the Harrison area.
- The number of households and families in Harrison are expected to increase at a slower pace than population growth, bucking the larger trends seen in both Wisconsin and the nation toward smaller households and families.
- The number of housing units could increase by 500 or more units by 2020.
- Approximately 180 businesses employing about 1600 total workers are located in Harrison.
- Fewer than 400 of the 1600 employed workers reside in the Village. This 1200-worker difference is fulfilled by workers commuting into Harrison from nearby communities.
- Unemployment within Harrison, at 2.4%, is lower than the 3.5% rate in Calumet County and much lower than the 7.2% rate in Wisconsin. There is a significant degree of mismatch between available workers and available jobs.



## Socioeconomic Market Segmentation

Demographics firm Esri's Tapestry Segmentation system divides geographic areas into 67 distinctive segments based on their socioeconomic and demographic composition, detailing the diversity of the American population and providing an accurate, detailed description of America's communities and neighborhoods. The populations within segments exhibit certain socioeconomic traits and similar demographic, education, and housing choice characteristics. By grouping and segmenting populations based on these characteristics, these segments can guide marketing, planning, and economic development by summarizing markets that share similar traits.

### **Soccer Moms (58.2% of households)**

This is an affluent, family-oriented segment with a country flavor. Residents are partial to new housing away from the bustle of the city but close enough to commute to professional job centers. Life in the suburbs offsets the hectic pace of two working parents with growing children. They favor time-saving devices, like banking online, and housekeeping services, and enjoy family-oriented pursuits.

### **Boomburbs (35.6% of households)**

This is a new growth market: young professionals with families that have opted to trade up to the newest housing in the suburbs. Similar neighborhoods began growing in the 1990s and continued through the peak of the housing boom and are fully developed now. This is an affluent market but with a higher proportion of mortgages. Rapid growth still distinguishes these neighborhoods, although the boom is more subdued now than it was ten years ago, as is the housing market. Residents are well-educated professionals with a running start on prosperity.

### **Green Acres (6.2% of households)**

The Green Acres lifestyle features country living and self-reliance. They are avid do-it-yourselfers, maintaining and remodeling their homes and gardens, with all the necessary power tools to accomplish the jobs. Outdoor living also features a variety of sports: hunting and fishing, motorcycling, hiking, camping, and golf. Self-

described conservatives, residents are pessimistic about the future but are invested in it.

## Economic Development Strategies

The remainder of this chapter focuses on strategies to achieve the types of commercial, retail, and industrial development desired within the community and details the economic development tools that could aid in Harrison's success.

### **Business Attraction**

Attracting businesses from other communities is a common economic development tool used by communities; however, the recruitment tools vary depending on the business sector. With the market analysis completed for the Village, target industry segments to recruit are manufacturing, agriculture related services, retail, wholesale trade, hospitality, healthcare, and finance. These are industries that would traditionally occupy industrial parks and retail and office locations along a corridor or downtown retail cluster such as a village center.

Harrison should look to create a business recruitment and expansion (BRE) program to attract and grow businesses. The strategy of the BRE program should focus on industry segments that fit the market analysis of needed businesses for the community. One strategy is to recruit businesses that are looking to expand to additional locations within a 50-mile radius of Harrison or their existing locations to take advantage of logistics models.

Another strategy the Village should focus on is economic gardening. Economic gardening is an entrepreneurial approach to economic development that seeks to grow the local economy from within. With economic gardening, local entrepreneurs create the companies that can potentially deliver new jobs, tax revenues, higher incomes, and economic growth for the community.

### **Marketing and Branding**

Many communities make the necessary fiscal and physical improvements to enhance the quality of life for residents and businesses. However, lots of communities fail to advertise or

convey their positive aspects to the wider world. Creating and marketing a brand is critical for current and long-term community success. Harrison should include in its overall marketing plan the quality of life attributes that attract residents and businesses such as: low tax rates, quality schools, natural and environmental areas, safety, utility rates, tax incentives, and a new village center.

### **Establish a Business Incubator in the Village Center**

Harrison has the need for more businesses providing goods and services to the local community, as well as diversified employment. One strategy that may address both of these issues is the establishment of a business incubator in the Village Center. A business incubator is an organization designed to accelerate the growth and success of new businesses through an array of business support resources and services that could include physical space, capital, coaching, common services, and networking connections. Business incubators are often sponsored by municipal entities and public institutions, such as colleges and universities. Their goal is to help create and grow young businesses by providing them with the necessary support and financial and technical services. Incubators provide numerous benefits to owners of startup businesses. Office and manufacturing space can be offered at below-market rates; and advice, expertise, and mentoring in developing business and marketing plans is usually provided in some manner; as well as tools to help fund new businesses. Businesses using incubators will typically spend an average of two years in the incubator, during which time they often share utility, secretarial/office, and equipment expenses with other startup companies, to reduce all users' overhead and operational costs. The incubator space concept has been used in Hillsboro before with some success. An office or services business incubator could be located in a Village Center building, while a manufacturing or agricultural products incubator could be located in a building in the industrial park site south of the Village Center.

### **Establish a Co-Working Center in Village Center**

Creating a co-working space gives some independent professionals a space they can share whenever they need business services or office/meeting space. The business users of a co-working space not only reduce their costs but also benefit from the creative interaction and networking such a shared space provides. This, in turn, can improve the viability of many businesses through innovation and increase the number of services available in Harrison. Creating a coworking space would have the added advantage of attracting so-called "lone entrepreneurs." These are small, home-based businesses usually composed of only a single individual, and such a space would offer them an opportunity to grow and share resources with other people in similar situations.

The organizational structure of a co-working facility established in Harrison would need to be determined based on several factors. It could be operated either as non-profit or a business organized as an LLC. Whatever the organizational structure chose, a Harrison co-working facility must provide flexibility of space, preferably providing 24/7 access to members/clients, with a minimum of 1,500 square feet of gross space, divided into short- and long-term rental offices, meeting rooms, and common spaces. The work center would ideally provide access to high-speed internet and good cellular service.

After a period of stabilization, approximately 3,000-4,000 square feet of space would be ideal. However, it is important not to make the facility too big so that it can accommodate moderate growth within a 12-24 month ramp-up period, allowing for a sustained period of stabilization. Space rental prices for a co-working space in Harrison would vary depending on amenities. The following is a suggested "menu" of leasing options for interested business people.

- \$100-\$250/month for full-time dedicated space with office amenities and services
- \$50-\$150/month for full-time shared space
- \$10/day or \$50/month for occasionally shared space access

- \$10-\$50/hour for meeting rooms

### **Capture a Greater Share of Regional Tourism Market**

Re-focusing on the Harrison area's tourism draws can build on existing market and economic development efforts in the area. Harrison has shoreline access along the northeast of Lake Winnebago and access to High Cliff State Park with is rich with natural resources and beautiful landscapes. Harrison provides easy access to motorcycling, bicycling, canoeing, and kayaking opportunities. Further, Harrison is located in a strong Fox Valley area providing many cultural attractions. Marketing itself as a gateway resource and retail center for users of all these natural and cultural opportunities extends Harrison's economic reach. Development of the Village Center is a good beginning, but Harrison must draw out-of-town tourists coming for the recreation provided by the area's natural features to enjoy the services provided by the Harrison community. Capitalizing on large events like ChickenFest, fishing tournaments, and regional sporting tournaments can create a larger customer base by making a good impression on visitors and drawing them to existing community businesses.

### **Economic Development Partnerships**

#### **Calumet County**

The County economic development program assists existing businesses and new businesses through low-interest loans, grants, technical assistance, workforce training, and other types of assistance as needed.

#### **Fox Cities Chamber of Commerce**

The Fox Cities Convention and Visitors Bureau is an economic development organization that seeks to boost tourism and visitation to the area through sales, marketing and destination development. In addition to its media and event promotional efforts, the CVB is a partner in developing local resources such as the future Fox Cities Exhibition Center.

#### **Fox Cities Convention and Visitors Bureau**

The Fox Cities are 20 communities along the Fox River in East Central Wisconsin. We're known as

Wisconsin's Shopping Place. The Fox Cities Convention & Visitors Bureau is an economic development organization that strengthens the Fox Cities by attracting visitors in the convention, sports and leisure markets through sales, marketing and destination development

#### **Fox Cities Regional Partnership**

The Fox Cities Regional Partnership is an organization committed to helping businesses locate and expand in the Fox Cities Region, and supported by public and private sector partners from around the region. The organization was founded in 2012 as an affiliate of the Fox Cities Chamber of Commerce.

#### **The New North**

The New North is a regional partnership made up of private and public sector partners from 18 counties in northeastern Wisconsin. It is supported by over 100 private investors in the region and state. These investors provide vital resources, talent, and support to the New North organization to promote the New North region. It is established as a non-profit corporation with a mission to "harness and promote the region's resources, talents, and creativity for the purpose of sustaining and growing our regional economy." The New North accomplishes this by fostering regional collaboration, focusing on targeted growth opportunities, supporting an entrepreneurial climate, encouraging educational attainment, encouraging and embracing diverse talents, and promoting the regional brand.

#### **Wisconsin Economic Development Corporation (WEDC)**

WEDC is Wisconsin's primary economic development agency. It provides a variety of assistance including business and community development programs, industry advancement, export assistance, and minority and start-up business assistance.

#### **Wisconsin Department of Administration (DOA)**

The DOA administers the Community Development Block Grant program, which is used to support a variety of housing, community, and economic development programs.

## Economic Development Programs

### Calumet County Revolving Loan Fund

The revolving loan program is intended to create jobs within the county. Business owners may apply to receive small loans.

### Urban Nonpoint Source & Storm Water Management Grant (WDNR)

Tentative Deadline: April 2017

Maximum grant: \$150,000 + \$50,000 for acquisition.

Eligible planning projects: urban stormwater management plans, ordinance development, the creation of stormwater utilities & public information.

Eligible construction projects: stormwater BMPs, engineering, land acquisition, stream bank & shoreline stabilization.

### Lake Planning Grant (WDNR)

Deadline: December 2016

Maximum grant: \$25,000 (\$50,000/year/lake).

Requires 33% local match.

Eligible projects: municipal storm water management plans, lake management plans, water quality monitoring and the creation of lake protection districts.

### Lake Protection Grant (WDNR)

Deadline: Annual

Maximum grant: \$200,000. Requires 25% local match.

Eligible projects: Conservation easements, wetland & shoreland restoration, ordinance development, watershed management and lake restoration.

### River Planning Grant (WDNR)

Deadline: Annual

Maximum grant: \$10,000. Requires 25% local match.

Eligible projects: river management plans, public education, ordinance development and creation of river protection groups.

### River Management Grant (WDNR)

Deadline: Annual

Maximum grant: \$50,000. Requires 25% local match.

Eligible projects: municipal stormwater BMPs,

ordinance development, in-stream and shoreline habitat and land acquisition.

### Brownfield Grants (WEDC)

No Deadline.

Grants for redeveloping commercial and industrial sites with environmental contamination.

### Brownfield Site Assessment Grants (WEDC)

No Deadline.

Grants for environmental investigations, demolition of structures and tank removal.

### Community Development Investment Grants (WEDC)

Tentative Deadline: Annual

Maximum grant: \$250,000. 75% local match required.

Grants to incentivize economic development programs with an emphasis on downtown revitalization.

### Idle Industrial Sites Redevelopment Grants (WEDC)

Tentative Deadline: November each year.

### Connect Communities Program (WEDC)

Connect Communities helps local leaders leverage the unique assets of their downtowns and commercial districts, providing access to resources and networking opportunities to local leaders interested in starting a district revitalization effort.

## Goal, Objectives, Policies

### Goal

*To retain and attract businesses and strengthen the Village of Harrison's local economy by balancing commercial and industrial development through investment and attraction with residential and agricultural development to create a more vibrant economic climate and livable village.*

### Objectives

1. Diversify the local economic base so that it

- keeps pace with the realities of a rapidly changing world economy and does not become threatened by economic downturns in various sectors of the economic base. Diversify the mixture of commercial uses in the village to meet unique market niches and better serve existing neighborhoods.
2. Develop and maintain a physical, cultural, educational, and recreational environment in the Village that is conducive to business and residential development.
  3. Take advantage of the economic development potential of the Village's proximity to the regional highway network. Ensure appropriate transportation connections and appropriate parking facilities to serve retail, commercial and industrial land uses and their needs.
  4. Develop and maintain an infrastructure that will support current and future commercial activities.
  5. Increase the proportion of commercial/manufacturing tax base relative to residential tax base. Provide adequate sites for desired commercial/manufacturing/industrial businesses, including a new business/industrial park. This includes maintaining the infrastructure, codes, and ordinances required for the vitality and growth of these types of activities.
  6. Create a new Village center/central business district.
  7. Encourage improvement of the visual quality of existing commercial and industrial establishments in the Village of Harrison to enhance the "image of the village" to visitors, residents and potential new investors.

## **Policies**

1. Develop a set of design standards for commercial and industrial developments to encourage quality, aesthetically pleasing development that will create a sense of place in the community.
2. Develop a business retention and expansion program.
3. Use the Village website as an economic development and marketing tool. Develop

- and maintain a socioeconomic profile of the Village to make available on the website.
4. Design the Village's transportation network to meet the needs of commercial and industrial development traffic.
  5. Determine through the land use planning process the highest and best use of vacant or under-utilized properties within the village and map on the future land use map.
  6. Recruit new industries by aggressively marketing the village's unique locational attributes, skilled labor force, and full range of municipal services.
  7. Encourage the use of innovative regional economic development strategies and tax base sharing tools in the Fox Cities region.
  8. Encourage intergovernmental cooperation and regional coordination in the area of economic development.
  9. Monitor and analyze tax base changes on an annual basis.
  10. Use state and federal programs to the fullest extent possible in achieving economic development goals.
  11. Identify new opportunities to use tax increment financing to assist with economic development and growth. When a new site is under consideration for a business or industrial park, analyze the opportunity to use tax incremental financing.
  12. Encourage commercial activities and development that are fiscally sound and meet the needs of the community.

**PLAN COMMISSION RESOLUTION 2022-06**

**TO RECOMMEND TO THE VILLAGE BOARD AN AMENDMENT TO THE HARRISON  
COMPREHENSIVE PLAN (Horn Road)**

WHEREAS the Harrison Plan Commission received an application from JJMRS Commercial LLC to amend the Comprehensive Plan Future Land Use Map from Farmstead Homes to Commercial; and

WHEREAS a map of the proposed amendment is attached to the Resolution as “Exhibit A”; and

WHEREAS the amendments have resulted in a Plan that is compliant with the requirements of Section 66.1001(2) Wis. Stats; and

WHEREAS, the Plan Commission has held a least one public hearing on these amendments on September 20, 2022, in compliance with the requirements of Section 66.1001(4)(d) Wis. Stats.

NOW, THEREFORE BE IT RESOLVED, the Harrison Plan Commission recommends to the Village Board the adoption of the amendment from Farmstead Homes to Commercial for the property located at N7099 Horn Road, Hilbert WI 54129.

The land is described as follows: All of Lot 1, Certified Survey Map, 2250, Vol. 16-282, Commencing 1,353.91 feet west of the Center of the East ¼ and Commencing 231.13 feet West, 41.25 feet South, 368.17 feet West, 366.55 feet South, 599.24 feet East and 407.8 feet North to the Point of Beginning, being part of the Northwest of the Southeast ¼ of the Northeast of the Southwest ¼ of Section 05, Township 19 North, Range 19 East, Village of Harrison, Calumet County, Wisconsin, containing 229,182 Square Feet (5.2613 Acres) of land subject to all easements, and restrictions of record.

Approved this 20th day of September 2022.

Motion for adoption by: \_\_\_\_\_

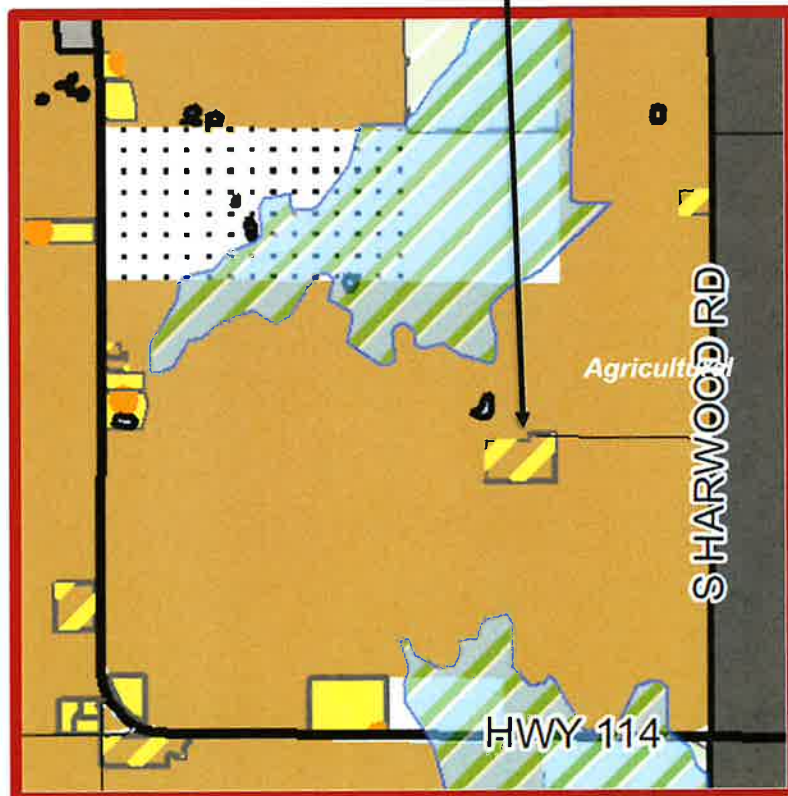
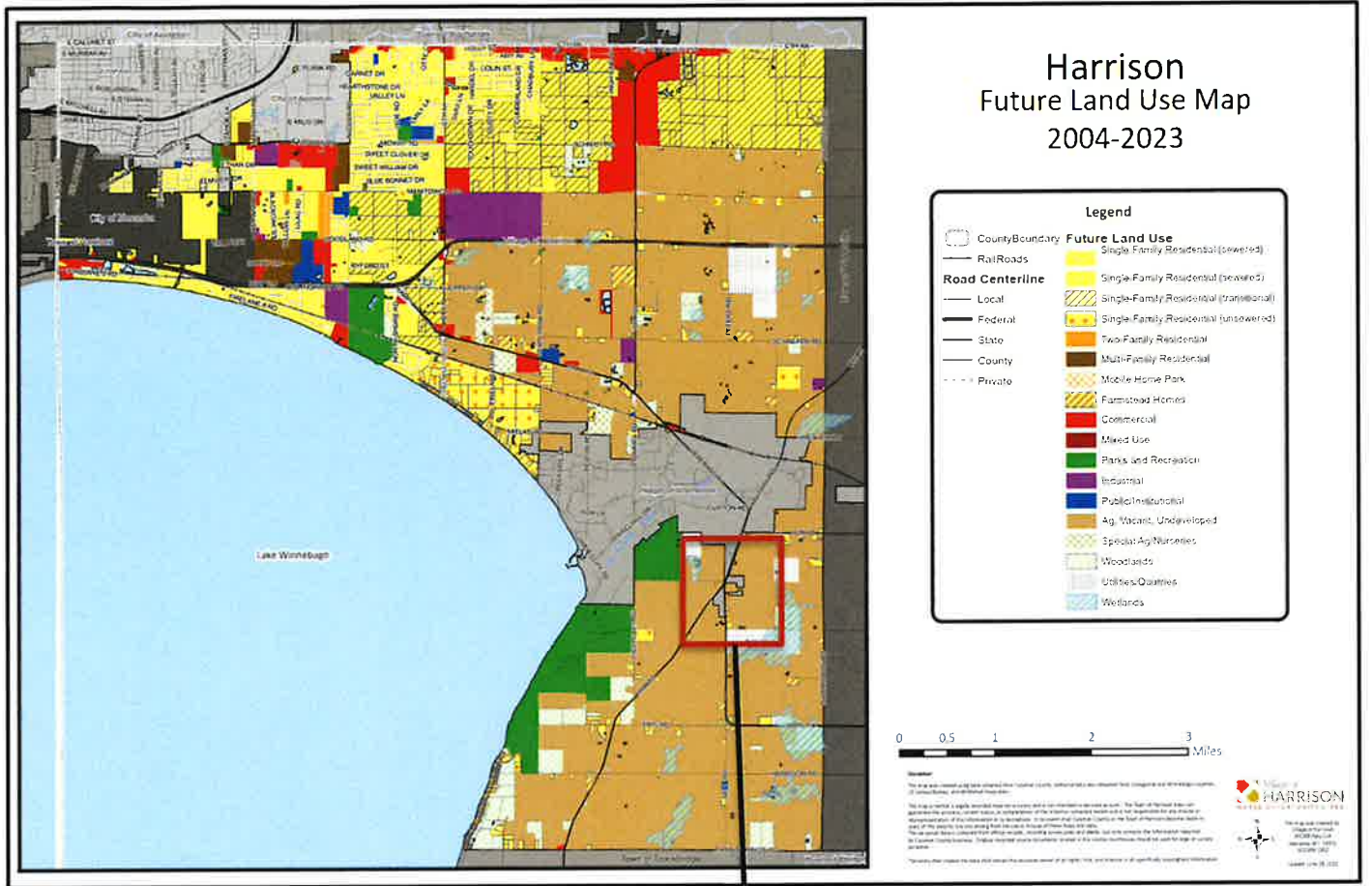
Seconded by: \_\_\_\_\_

Vote Aye: \_\_\_\_ Nay: \_\_\_\_

\_\_\_\_\_  
Allison Blackmer, Plan Commission Chair

\_\_\_\_\_  
Attest: Mark J. Mommaerts, AICP, Harrison Assistant Village Manager

Exhibit A  
Rural Residential to Commercial



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**PLAN COMMISSION MEETING**

**VILLAGE OF HARRISON**

**From:**

Trish Nau, Assistant Planner

**Meeting Date:**

September 20, 2022

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**Title:**

Zoning Map Amendment (Rezoning) – JJMRS Commercial LLC

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**Issue:**

Should the Plan Commission recommend approval of a zoning map amendment (rezoning) to the Village Board?

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**Background and Additional Information:**

The applicant is requesting that his property located at N7099 Horn Road, Tax ID 38768, be rezoned from Rural Residential [RR] to Community Commercial [CC]. The purpose of the rezoning is to create a business site for RV rentals and storage. The Comprehensive Plan and Future Land Use Map identifies this property as “Farmstead Homes.” The proposed rezoning would offer the applicant the ability to increase his employee base as well as develop his RV business in being approximately 2 ½ miles to High Cliff State Park.

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**Findings of Fact:**

- Staff finds that the rezoning request does comply with the Economic Development Objectives #1, #3, #4 and #5 within the Comprehensive Plan of the Village of Harrison:
  1. *Diversify the local economic base so that it keeps pace with the realities of a rapidly changing world economy and does not become threatened by economic downturns in various sectors of the economic base. Diversify the mixture of commercial uses in the village to meet unique market niches and better serve existing neighborhoods.*
  3. *Take advantage of the economic development potential of the Village’s proximity to the regional highway network. Ensure appropriate transportation connections and appropriate parking facilities to serve retail, commercial and industrial land uses and their needs.*
  4. *Develop and maintain an infrastructure that will support current and future commercial activities.*
  5. *Increase the proportion of commercial/manufacturing tax base relative to residential tax base. Provide adequate sites for desired commercial/manufacturing/industrial businesses, including a new business/industrial park. This includes maintaining the infrastructure, codes, and ordinances required for the vitality and growth of these types of activities.*



- Staff finds the RV Business complies with *Zoning Ordinance 117-80 General Agricultural District [AG] (d)(6) Commercial truck, bus, mobile home, large vehicle, or heavy equipment sales and rentals and also [AG] (d)(12) Mini-Warehousing.*
  - Property owners within 300-feet of the subject property have been notified via first-class mail.
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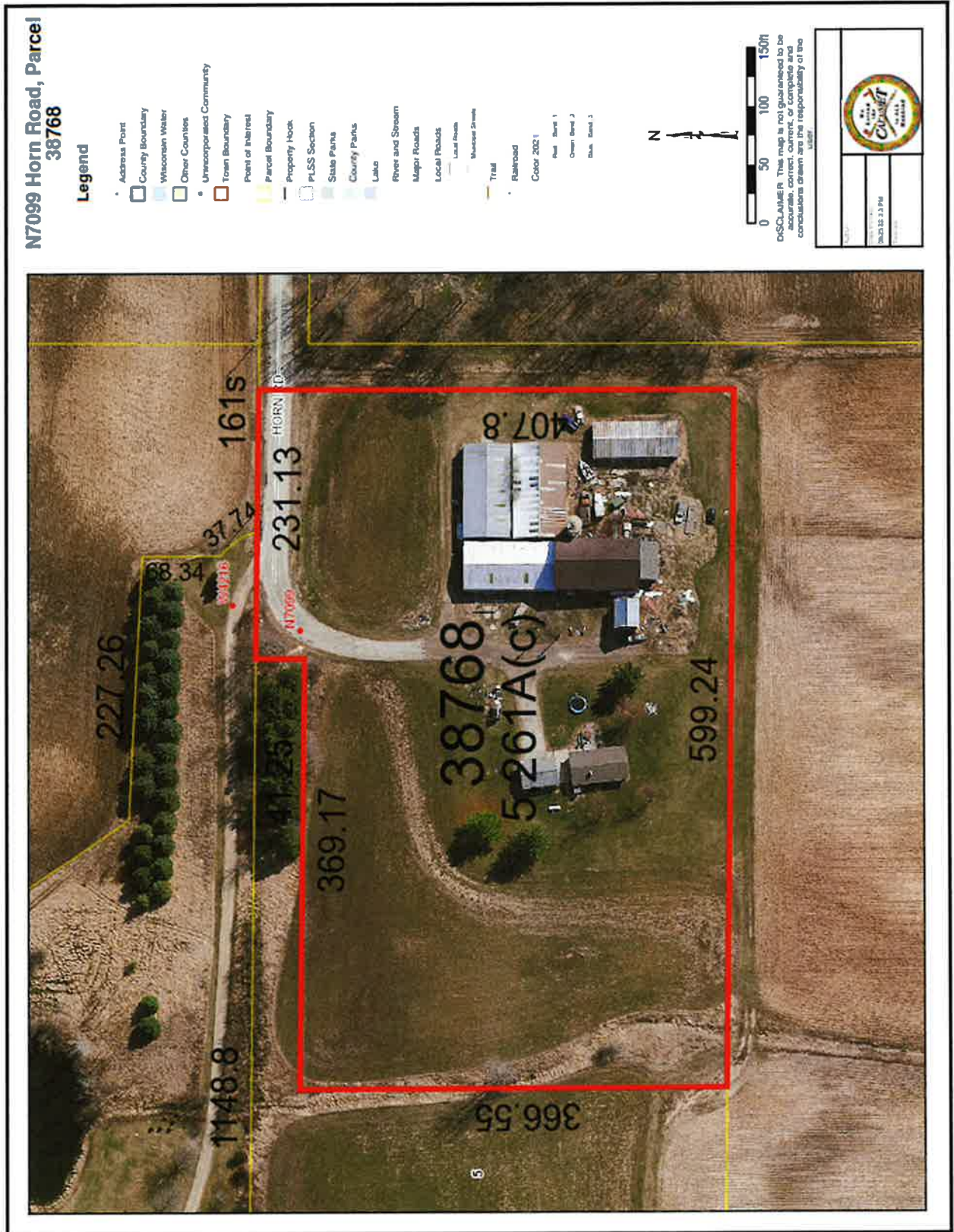
**Staff Recommends:**

- The Zoning Map Amendment be revised to exclude the residential property and that the remaining lands proposed rezoned to General Agricultural [AG].
  - That a Certified Survey Map (CSM) be created to split the residential property from the commercial property.
  - Staff recommends a Conditional Use Permit to comply with *Zoning Ordinance section 117-80(d), Conditional Uses and Structures.*
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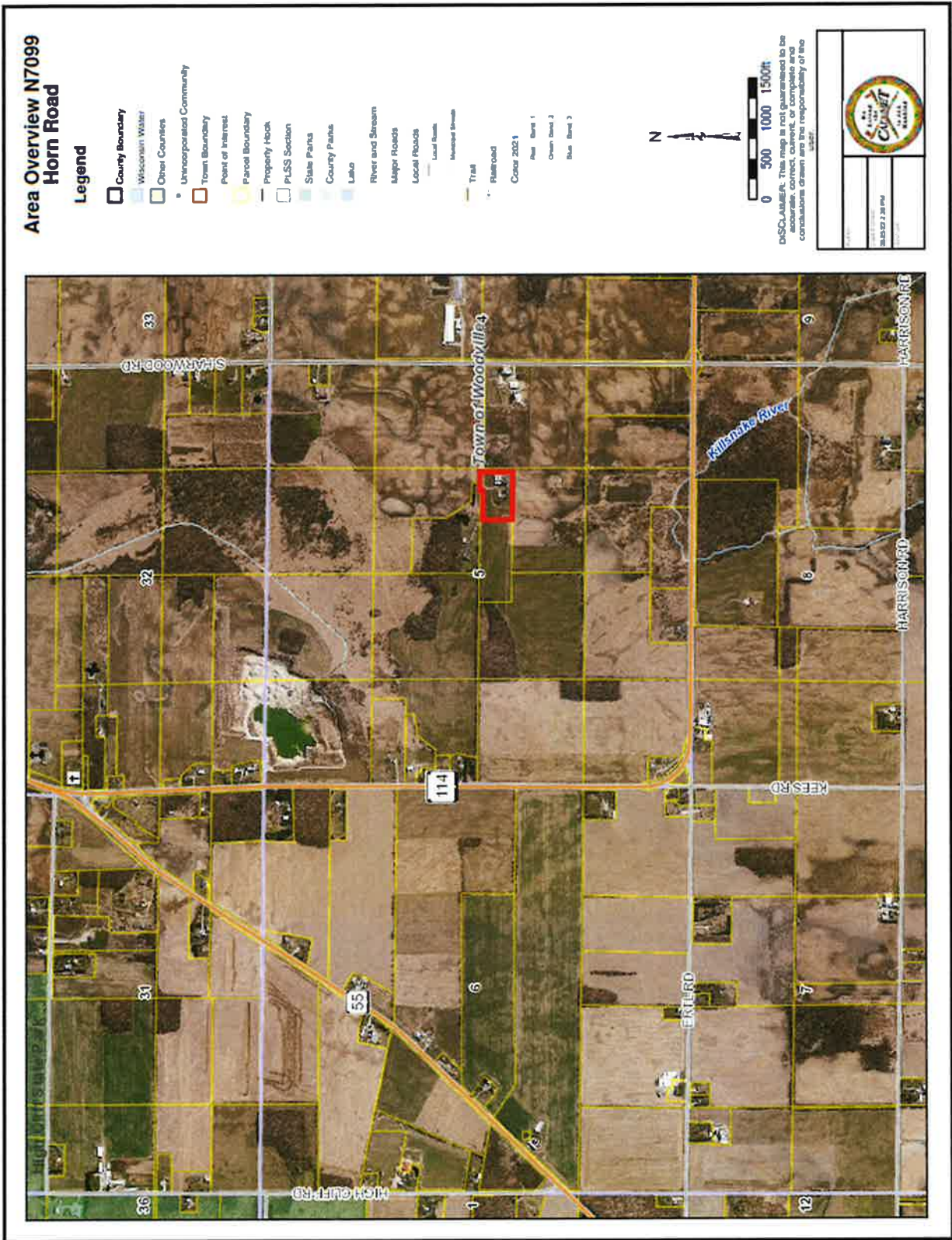
**Attachments:**

- Aerial Maps
- Zoning Map

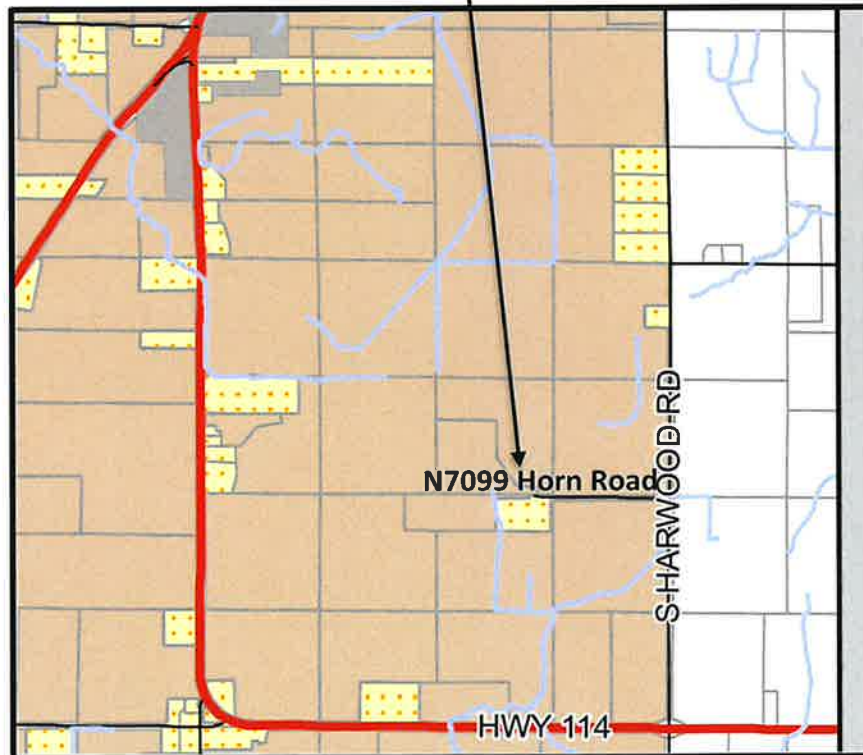
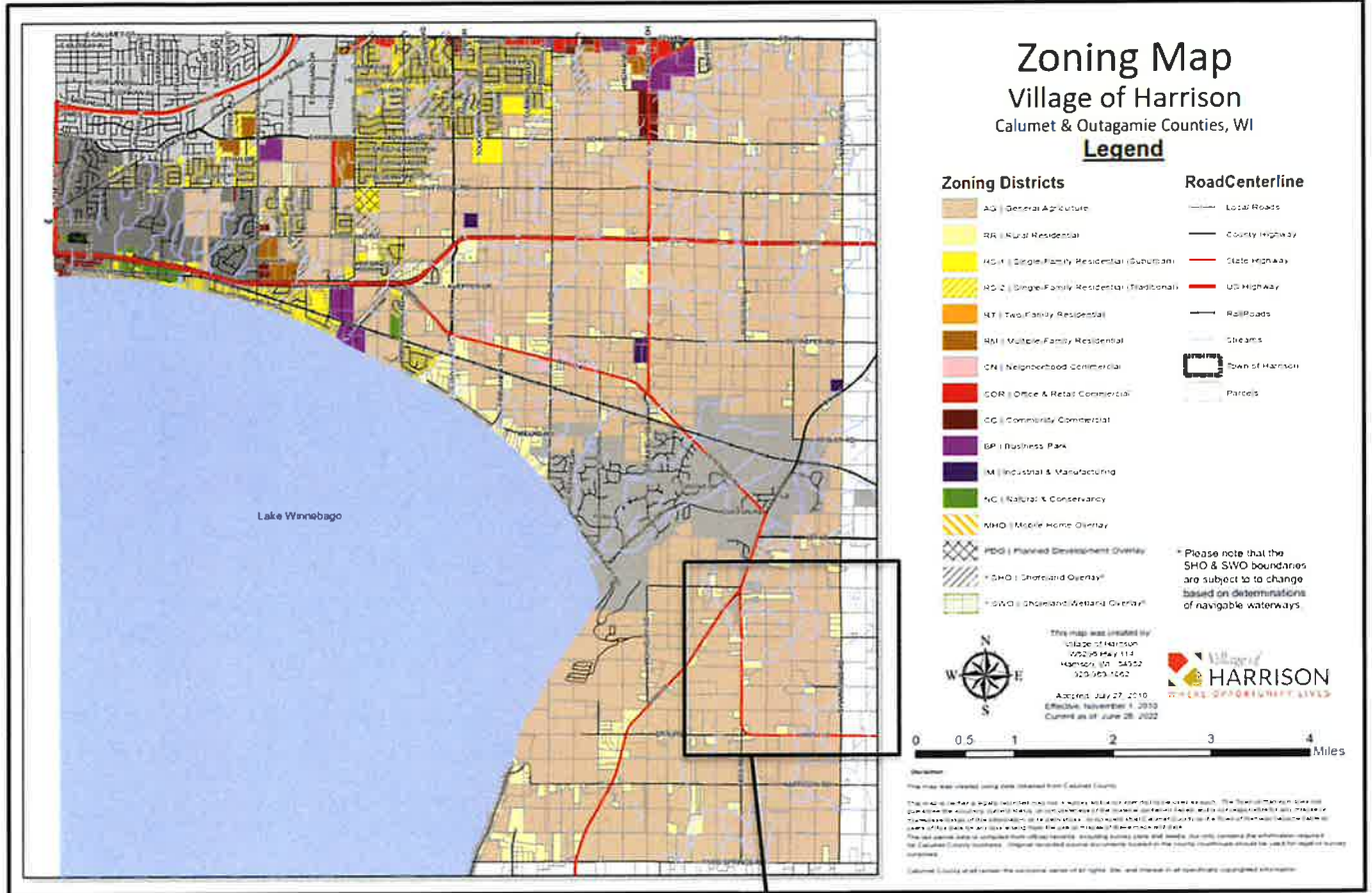
Aerial Map #1



Aerial Map #2



# Zoning Map



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**PLAN COMMISSION MEETING**

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**VILLAGE OF HARRISON**

**From:**

Trish Nau, Assistant Planner

**Meeting Date:**

September 20, 2022

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**Title:**

Preliminary Plat – Harrison Heights

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**Issue:**

Should the Plan Commission recommend approval of a revised Preliminary Plat for a new subdivision to the Village Board?

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**Background and Additional Information:**

The applicant is proposing to develop 3 parcels at the southeast corner of Woodland Road & Kasten Road, 61.178 Acres into a subdivision called Harrison Heights. Generally, the lot sizes are 14,000-16,000-square feet with a typical lot dimension of 95' x 150'. The plat identifies 2-new roadway connections to Woodland Road. The revised plat eliminated 4 lots with access along Woodland Road, reducing the number of lots from 110 to 106.

There are 2 roadway connections to the subdivision to the west, Creekside Estates. The developer intends to vacate Kasten Road, which is a substandard Village roadway. There is an existing home on Kasten Road that will have access to a new road as part of the subdivision. There are 2-outlots for stormwater management. The property is within the Harrison Utilities sanitary sewer service area. Sewer and water services can be extended from the Creekside Estates subdivision.

There is an existing residence off Kasten Road that is under separate ownership from the subdivision until such time as the existing owner moves from the residence, then the subdivision developer can plat and rezone that property.

The first draft of the plat was brought before the Plan Commission at its August 23, 2022, meeting. The Plan Commission recommended approval of the Preliminary Plat for Harrison Heights with the following conditions:

1. Consider installing a berm with plantings along Woodland Road and Hwy 10.
2. Consider adding the cell tower site as a separate outlot or to OL 2. Review WisDOT requirements for access to cell tower site.
3. Removal of Lots 14-17 from the preliminary plat, as they do not match the concept plan reviewed by the Plan Commission in January. Woodland Road is an access restricted roadway.
4. To provide a fee in lieu of parkland dedication, an amount should be determined as part of the development agreement.
5. A note shall be added to the plat indicating access control/no access to Woodland Road.

6. Wetland permits shall be obtained from the WI Dept of Natural Resources and submitted to the Village.
7. Erosion Control Silt Fence shall be installed, in accordance with State Specifications, along the right-of-way line of all streets prior to roadway acceptance.
8. All lots shall have a storm sewer lateral provided for sump pump discharge.
9. All storm sewer easements shall be 30-feet in width.
10. A grading/drainage stormwater management plan and erosion control plan shall be reviewed and approved by the Village engineer and Village staff.
11. Final utility and street plans shall be reviewed and approved by the appropriate review authority prior to approval of the Final Plat and prior to utility and street construction.
12. Grading/Drainage Plan shall identify elevations of ground at the foundation.
13. There shall be notes to be added to the face of the final plat in accordance with Section 115-12(d)(1)(f).
14. The final grading/drainage plans shall include benchmarks for all fire hydrants. Benchmarks shall refer to hydrant tag bolts.
15. Plans shall be sent to the appropriate utility entities for review (i.e., phone, cable, gas/electric, sewer/water).
16. All easements shall be labeled with correct ownership and shall provide all benefits needed to the easement holder, including but not limited to access, maintenance, or other authority.

On August 30, 2022, the Village Board discussed the Preliminary Plat with the conditions proposed and approved a motion to refer the pre plat be brought back to the Plan Commission for more discussion. After examination, the Board determined that a possible trail on the south side of Woodland Road should be constructed for the number of residents that would reside in the subdivision. Construction of a trail along Woodland Road adheres to Goals 1&2, Objectives 1.2, 2.2, & 2.3, Implementation Strategy 2 (2.2, & 2.3) and Map #2 of the Comprehensive Outdoor Recreation Plan.

Harrison does not have a policy for placement of a trail within the Right-of-way. Staff feels that a trail on the north side of Woodland Road would be best. There are fewer utility conflicts to the north and given the proximity of Farmers Field Park to the new subdivision it would be better to construct a northside trail than to commit money to parkland dedication.

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**Recommended Action:**

Staff recommends approval of the Revised Preliminary Plat for Harrison Heights with the following conditions:

1. Consider installing a berm with plantings along Woodland Road and Hwy 10.
2. Consider adding the cell tower site as a separate outlot or to OL 2. Review WisDOT requirements for access to cell tower site.
3. Construct a trail on the north side of Woodland Road connecting the subdivision to Farmer Field Park as well as the future Noe Road trail and Creekside Estates.
4. A note shall be added to the plat indicating access control/no access to Woodland Road.
5. Wetland permits shall be obtained from the WI Dept of Natural Resources and submitted to the Village.
6. Erosion Control Silt Fence shall be installed, in accordance with State Specifications, along the right-of-way line of all streets prior to roadway acceptance.

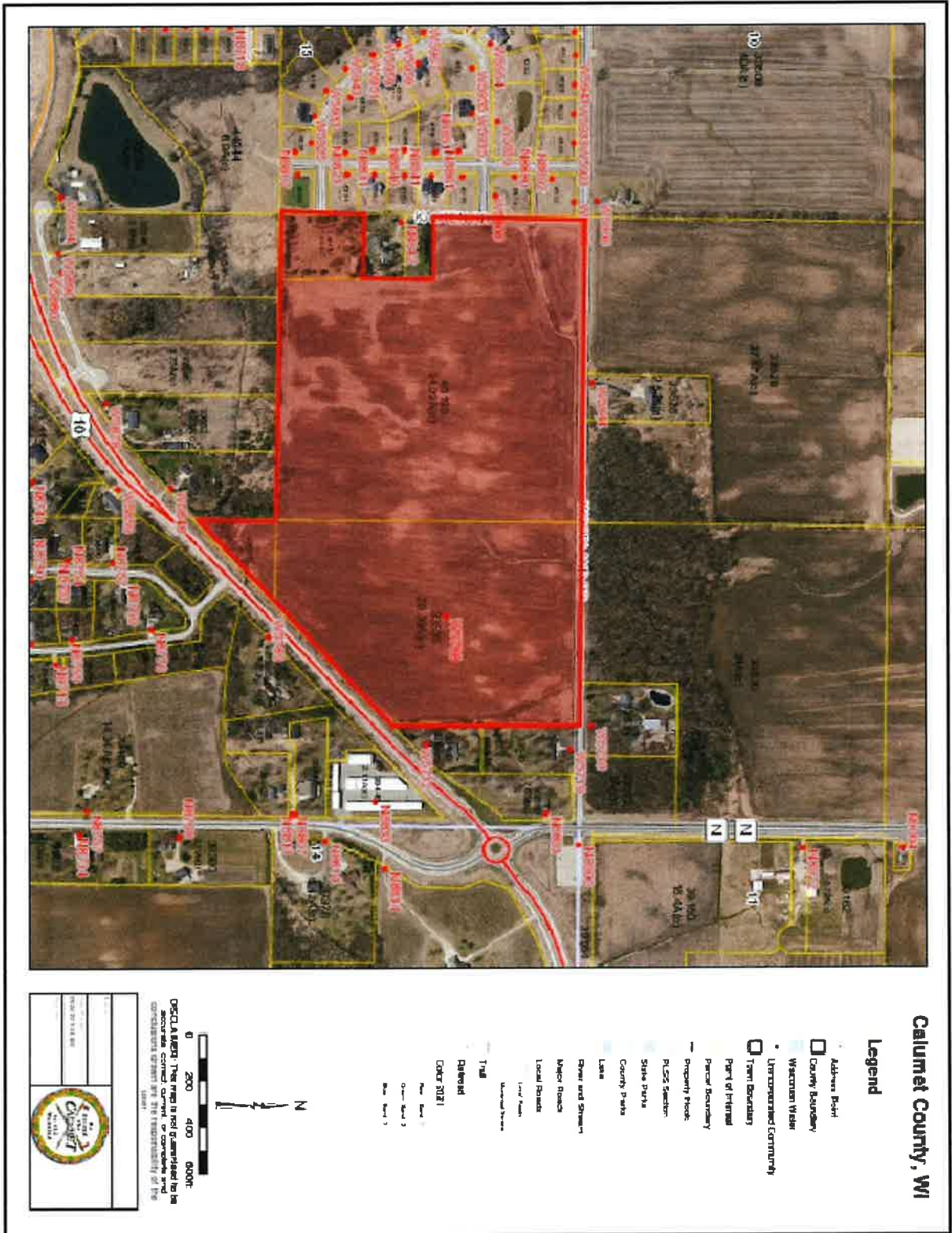
7. All lots shall have a storm sewer lateral provided for sump pump discharge.
8. All storm sewer easements shall be 30-feet in width.
9. A grading/drainage stormwater management plan and erosion control plan shall be reviewed and approved by the Village engineer and Village staff.
10. Final utility and street plans shall be reviewed and approved by the appropriate review authority prior to approval of the Final Plat and prior to utility and street construction.
11. Grading/Drainage Plan shall identify elevations of ground at the foundation.
12. There shall be notes to be added to the face of the final plat in accordance with Section 115-12(d)(1)(f).
13. The final grading/drainage plans shall include benchmarks for all fire hydrants. Benchmarks shall refer to hydrant tag bolts.
14. Plans shall be sent to the appropriate utility entities for review (i.e., phone, cable, gas/electric, sewer/water).
15. All easements shall be labeled with correct ownership and shall provide all benefits needed to the easement holder, including but not limited to access, maintenance, or other authority.

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**Attachments:**

- Aerial Map
- Revised Preliminary Plat
- Comprehensive Outdoor Recreation Plan – Goals, Objectives, Implementation Strategy, and Map #2

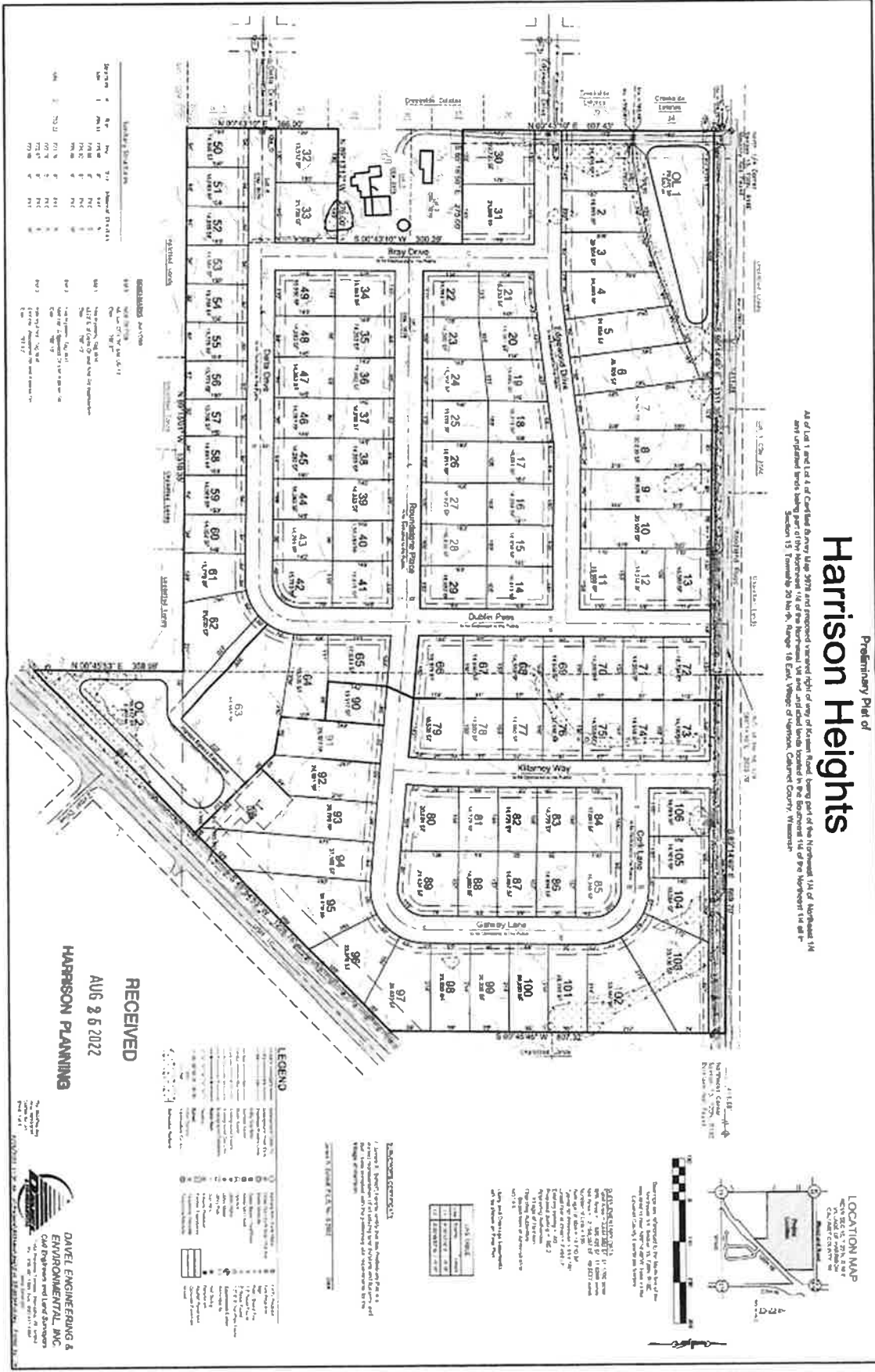
# Aerial Map





# Preliminary Plat of Harrison Heights

All of Lot 1 and Lot 4 of Cardinal Drive Map 9978 and proposed to be part of the Highway 134 of Highway 16  
and proposed to be part of the Highway 134 of Highway 16  
and proposed to be part of the Highway 134 of Highway 16  
Section 15 Township 20 North Range 16 East Village of Vernon, Colman County, Wisconsin



# GOALS & OBJECTIVES

## 1 Project park, trail, and recreation facility needs based on periodic review of community growth and community needs.

1.1 Ensure that environmental and aesthetic qualities of the community are considered when planning for park and recreation development, including preservation of natural resource areas.

→ 1.2 Assess park and facility needs as new subdivisions are developed to ensure that new residents are adequately served.

1.3 Promote cooperative efforts with surrounding communities to provide recreational facilities and programs as well as adding new facilities and programs.

1.4 Engage the Harrison community in all park and recreation facility planning efforts, including public meetings, community surveys, and pilot or demonstration projects within the parks.

## 2 Ensure that Harrison's parks and natural beauty are accessible to all residents.

2.1 Ensure that all Harrison residents have access to park facilities close to their home.

→ 2.2 Develop a system of multi-modal trails, paths, and safe on-street facilities that are clearly marked with wayfinding and connect Harrison residents to park and public facilities.

→ 2.3 Enhance the safety of multi-modal trail connections, especially to park facilities, through the development of safe road crossings.

2.4 Design active and passive recreational areas and facilities which can be used by citizens with mobility impairments.

2.5 Plan for amenities and recreation programming for residents of all ages, providing for varied interests.

2.6 Enhance communication of available park and recreation facilities and improvements to Harrison residents.

2.7 Develop new "Village of Harrison" branding in place of existing "Town" branding.

## 2 Ensure that Harrison’s parks and natural beauty are accessible to all residents.

- 2.1 Ensure that all Harrison residents have access to park facilities close to their home.
- 2.2 Develop a system of multi-modal trails, paths, and safe on-street facilities that are clearly marked with wayfinding and connect Harrison residents to park and public facilities.
- 2.3 Enhance the safety of multi-modal trail connections, especially to park facilities, through the development of safe road crossings.
- 2.4 Design active and passive recreational areas and facilities which can be used by people with mobility limitations.
- 2.5 Plan for amenities and recreation programming for residents of all ages, providing for varied interests.
- 2.6 Enhance communication of available park and recreation facilities and improvements to Harrison residents.
- 2.7 Develop new “Village of Harrison” park branding and a materials palette that highlights the natural beauty of the Village.

<b>A</b> ADMINISTRATION	<b>P</b> PROGRAMMING	<b>S</b> SYSTEM-WIDE	<b>F</b> FUTURE PARKS	<b>L</b> LAKE ACCESS
Evaluate the primary routes between the neighborhoods to each park to ensure that there are adequate pedestrian and bicycle facilities to accommodate families with children and residents with mobility issues.	Create at least one recreational program designed for teenagers.	Conduct a wayfinding plan for the park system that includes the parks, multi-use trail system, and directional signage. Create a trail implementation plan based on priority trail locations.	As new subdivisions develop and land is reserved for park development, proactively acquire easements or land for multi-use trail development to connect the park to the neighborhood and to other community recreation amenities.	Provide accessible paths for non-motorized lake access at two key locations on Lake Winnebago.
Budget for park signage on a yearly basis to implement the recommendations of the wayfinding study.	Implement a summer movie night program.	Create new safe walking routes and crossing points to promote safe access, especially based on community feedback.		
Work with user groups to develop park use and rental agreements, for the fields and courts that are used by recreational leagues and associations.	Organize a food truck rally at Village Hall on a summer night when ballgames are scheduled.	Engage residents around community identity and Harrison’s natural environment and work with a designer to develop branding and a materials palette.		
Create a park map for the Village and add new park facilities as they are developed and become publicly accessible to increase community awareness of existing parks and facilities.		Develop new park and trail signage with new Village of Harrison Parks branding.		

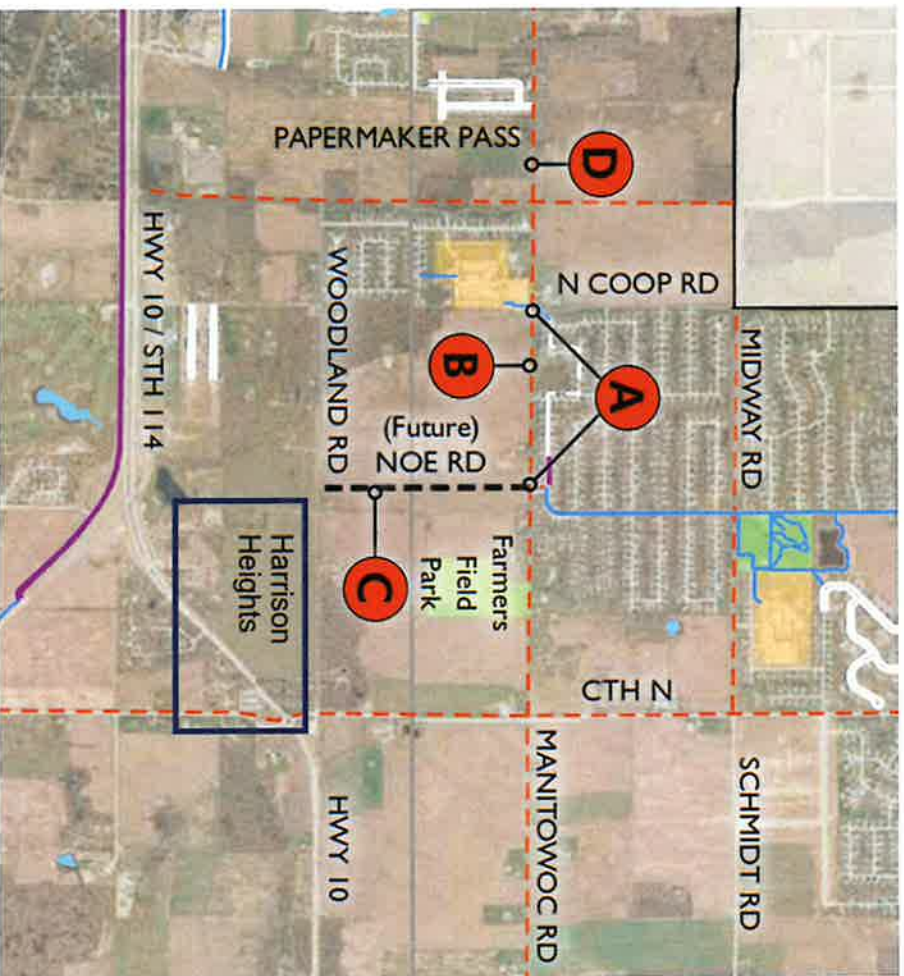
# CONNECTIONS ENLARGED MAP #2 FARMERS FIELD PARK AND PARK SERVICE AREA

## LEGEND FOR ENLARGED MAPS

Existing Trails		Proposed Trails	
Red line	Unspecified	Red dashed line	Unspecified
White line	Sidewalk	Purple dashed line	Bike Lane
Yellow line	Hike	Green dashed line	Pond Access Trail
Orange line	Hike and Bike	Black dashed line	Sidewalk
Purple line	Bike		
Green line	Horse and Bike		
Blue line	Multi-Use		

### Recommended priority trail connections:

- A** Safe crossings at Noe and N Coop Roads
- B** Trails on the north and south sides of Manitowoc Road between N Coop Road and Farmers Field Park entry
- C** Trails on the east and west sides of the future Noe Road
- D** Trail on the south side of Manitowoc Road between N Coop Road and Papermaker Pass



Existing and proposed bicycle and pedestrian facilities.

Source: Calumet County and Village of Harrison

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**PLAN COMMISSION MEETING**

**VILLAGE OF HARRISON**

**From:**

Trish Nau, Assistant Planner

**Meeting Date:**

September 20, 2022

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**Title:**

Solar Farms

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**Issue:**

What comments does the Plan Commission have on private farmland being used for solar farms?

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**Background and Additional Information:**

Landowners in the Village of Harrison have been approached by solar companies to possibly utilize their farmland for solar power. Participating landowners would voluntarily lease their land to host all or a portion of a solar farm and receive annual lease payments in return. The long-term lease payments may be financially attractive because they can help supplement farm income and provide extra funding against changing commodity prices for corn, soybeans, milk, and cattle. According to RENEW Wisconsin, five to seven acres of land are used for every megawatt of solar power capacity.

Village's Role: Review of zoning for these projects to issue permits for the land to be used for large solar energy generation projects through the Conditional Use Permitting process. Zoning should remain General Agricultural [AG].

Benefits to the Village: Solar farms greater than 50 megawatts would pay into a utility aid that would produce a revenue sharing. The Village would receive \$1,677 per Megawatt generated, e.g., 100 MW solar farm = \$167,000 annual revenue to Village.

Benefits to Village Residents: Revenue that is generated can be allocated to support essential services and reduce property taxes. Example: Revenue received could go to road maintenance and repair projects.

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**Recommended Action:**

No action needed. Discussion only.

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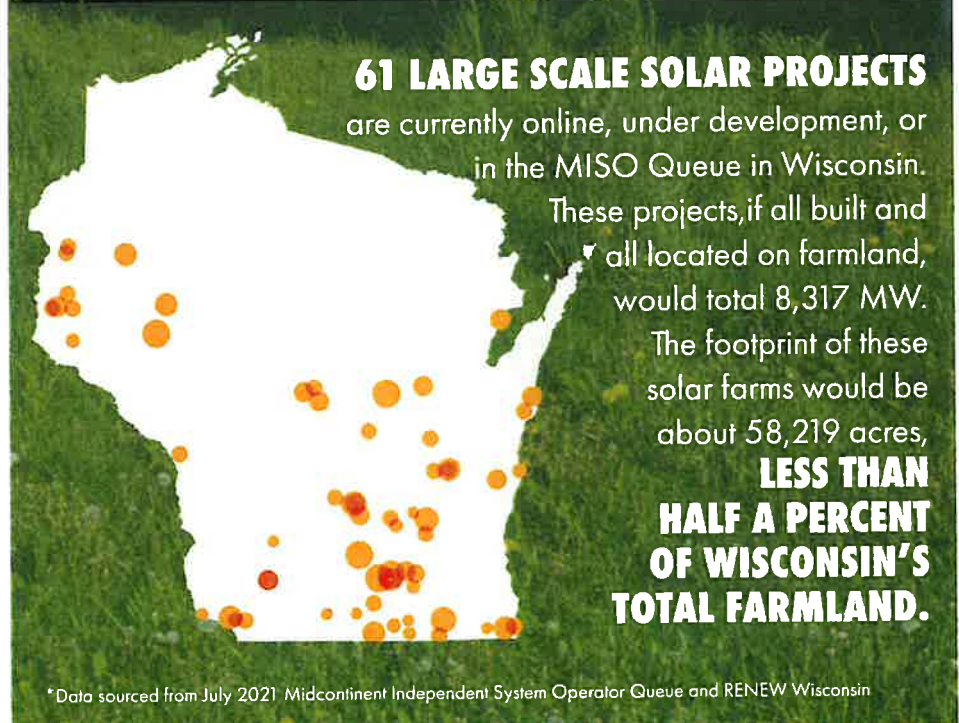
**Attachments:**

- Solar Farm Factsheets
- Map of current Solar Farms in Wisconsin

# SOLAR AND AGRICULTURAL LAND USE

Wisconsin farmers have played a crucial role in providing food and energy to our communities for decades. Farmers now have a new opportunity to provide clean, renewable energy to the people of Wisconsin today and well into the future. Trends in conventional crop production have fostered ripe conditions for farmers to implement new ways to generate revenue. Thanks to rising crop yields, we are growing far more crops on less land, and commodity prices are low due to market conditions largely beyond farmers' control.

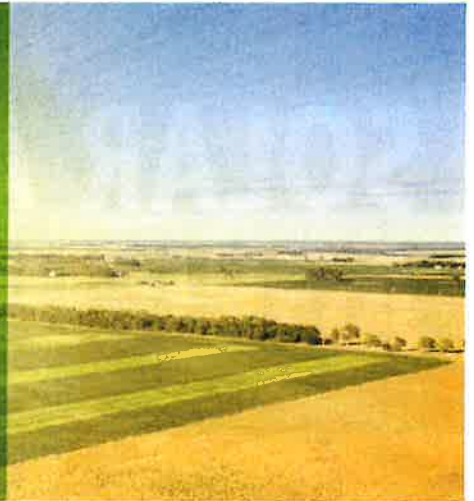
Solar farms offer energy independence and pump millions of dollars into rural communities. Solar-hosting farmers have reliable sources of revenue for years to come.



[WWW.RENEWWISCONSIN.ORG](http://WWW.RENEWWISCONSIN.ORG)

# LESS THAN HALF A PERCENT OF WISCONSIN'S TOTAL LAND WOULD BE REQUIRED TO GENERATE HALF OF OUR STATE'S ELECTRICITY WITH SOLAR.

THE LAND REQUIRED TO SUPPLY HALF OF OUR STATE'S ELECTRICITY FROM SOLAR PV IS APPROXIMATELY THE SAME AMOUNT CURRENTLY ENROLLED IN THE CONSERVATION RESERVE PROGRAM.



## CROP PRODUCTION IN WISCONSIN

We are growing more crops today than we were 35 years ago and doing so on fewer harvested acres of land. Crop yields are expected to continue increasing, exacerbating an already oversaturated marketplace. Some crop producers are looking far and wide for new ways to generate revenue. Solar farms can offer a revenue solution.



## FINANCING LAND CONSERVATION

Federal taxpayers are paying to take cropland out of production through the U.S. Conservation Reserve Program. Today in Wisconsin, nearly 100,000 acres are not in active cultivation to improve soil health, reduce the volume of crops produced, and manage oversupply. Utility-scale solar projects provide similar land conservation and restoration services but do not require taxpayer dollars. Solar farms inject money into local communities through host lease payments, Wisconsin's shared revenue formula, which provides funds to the host local governments, and increased local spending.



## ENERGY PRODUCTION AND FARM LAND

Many farmers today are already in the energy production business. About 37% of the corn already grown in Wisconsin is used for ethanol, a common biofuel. Incorporating solar generation on farms is simply another form of Wisconsin-made energy that farmers can provide our state.

In addition, plantings under the solar arrays can be designed to advance sustainable agricultural practices such as increasing pollinators like bees and butterflies and rebuilding the soil to be more fertile when replanted.

To learn more about this subject visit [www.renewwisconsin.org/solar-and-agricultural-land-use](http://www.renewwisconsin.org/solar-and-agricultural-land-use)



[WWW.RENEWWISCONSIN.ORG](http://WWW.RENEWWISCONSIN.ORG)



# UTILITY SCALE SOLAR FARM FAQ



## What is utility-scale solar?

"Utility-scale solar," "large-scale solar," and "solar farms" are different terms that describe a solar power facility that generates enough electricity to serve many customers, as opposed to a single home or business. These facilities are typically located on open land and near an existing substation or electric transmission infrastructure.

## Electricity usage in Wisconsin has been relatively stable. Why do we need new solar projects?

Wisconsin utilities are planning to retire several coal and natural gas plants in the next two to three years and this electricity capacity needs to be replaced. The cost of solar has declined tremendously, making solar projects an economic solution.

## Are there any solar farms operating in Wisconsin today?

Yes. There are more than 30 solar farms in Wisconsin that are presently generating electricity for utility use. Most of these are in the range of 1-5 megawatts of solar capacity. A one megawatt solar farm produces enough electricity annually to offset the needs of about 190 average Wisconsin homes.

## Why is solar energy being pursued as a source of grid power?

The most important driver behind the growth of solar is the declining cost of solar power technology and installation. The cost to install solar has declined 75% or more in the last decade. The cost of new large-scale solar generation has dropped to the point where it is cost-competitive today with traditional coal and natural gas power plants.

## How much land is required for solar farms?

A good rule of thumb is 5-7 acres of land are used for every megawatt of solar power capacity.

## Who uses the energy from these solar developments?

**Wisconsin does!** All solar farms built or proposed in Wisconsin are owned by, or sell their electricity to, Wisconsin electric providers. In turn, the electricity supplies WI homes and businesses.



FOR MORE QUESTIONS, ANSWERS, AND DETAILS, VISIT [WWW.RENEWWISCONSIN.ORG/SOLARFARMS](http://WWW.RENEWWISCONSIN.ORG/SOLARFARMS)



# UTILITY SCALE SOLAR FARM FAQ



## Are solar panels a safe technology?

Yes. Solar panels are safe to touch, attach to your home, and install in your neighborhood or town.

## Are the solar panels or any of the other components made in Wisconsin?

Although we do not have any solar panel manufacturing in Wisconsin, many of the parts needed to build and operate solar farms are indeed made in Wisconsin.

## Can hosting solar panels help agricultural land?

Yes. The land that supports solar arrays can be revegetated with a variety of short, deep-rooted plants, grasses, and flowers that can rebuild the soil. In addition, these plantings support honey bees, butterflies, hummingbirds, and other pollinators whose populations are facing threats.

## How do solar farms benefit landowners?

Solar farms are usually placed on privately-owned land. Participating landowners voluntarily agree to host all or a portion of a solar farm and receive annual lease payments in return. Most landowners find that the long-term lease payments are financially attractive, principally because they supplement farm income and provide a hedge against fluctuations in commodity prices for corn, soybeans, and dairy.

Participating landowners bear no construction or operating expenses for the solar arrays. The project will be decommissioned and the land restored at the end of the solar farm's useful life.

## How can solar farms benefit local governments?

In Wisconsin, owners of solar farms greater than 50 megawatts pay annually into a utility aid fund which is shared with the local governments where the solar farm is located. Under the revenue sharing formula currently in place, a qualifying solar farm will contribute \$2,333 per megawatt (MW) per year to the county and \$1,667 per MW to the township(s) hosting the project, for a total of \$4,000 per MW per year.

## Can some of the solar power be stored in batteries to use at night?

A "Battery Energy Storage System" (BESS) is a potential accessory to a solar project. Battery storage could provide many benefits including releasing energy after the sun goes down.



FOR MORE QUESTIONS, ANSWERS, AND DETAILS, VISIT [WWW.RENEWWISCONSIN.ORG/SOLARFARMS](http://WWW.RENEWWISCONSIN.ORG/SOLARFARMS)

# Utility Scale Solar Farms in Wisconsin

Over the years we have become dependent on coal and natural gas to make over 70% of the electricity in Wisconsin. The problem is we don't have any coal or natural gas reserves in Wisconsin, so we send away well over a billion dollars per year to bring these resources in.

But the times are changing, and this is good news for Wisconsin.

The cost of developing solar power projects has dropped by over 75% in the past decade. Solar power technology has improved, so that more of the sunlight is directly converted to power. This allows even a seasonal state like Wisconsin to be a viable place for solar energy.

Wisconsin utilities are partnering with companies that want to develop more clean energy at scale, and we support win-win solar development with a voluntary pollinator-friendly standard that will enable bees, birds, and soil to thrive where solar development sprouts up. Below, we've answered some questions about Wisconsin's evolving solar energy landscape.

## What is utility-scale solar?

"Utility-scale solar," "large-scale solar," and "solar farms" are different terms that describe a solar power facility that generates enough electricity to serve many customers, as opposed to a single home or business. These facilities are typically located on open land and near an existing substation or electric transmission infrastructure.

## How do solar panels and solar farms work?

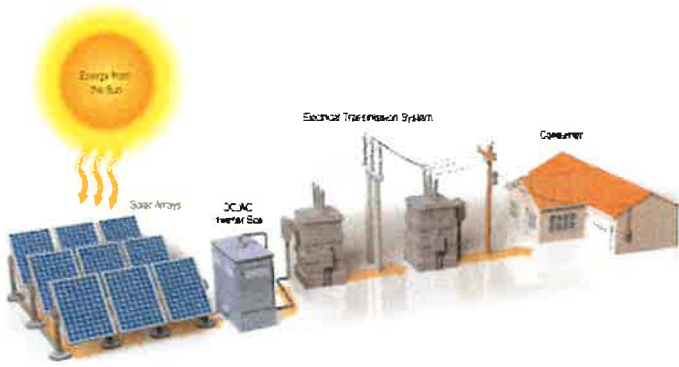
Solar electric panels create electricity directly from sunlight. When sunlight hits the panels, semiconductors inside the solar panels are activated to produce usable electricity. In a solar farm, many individual solar panels are grouped together to produce a lot of electricity.

In most cases, panels are mounted on "single-axis tracking systems." Solar panels are attached to horizontal poles which run north to south. Throughout the day the panels rotate from east to west to follow the sun.

The equipment in a solar farm includes solar panels, racking, cables, inverters, transformers, and a power line or substation to deliver the power to the electric transmission grid.

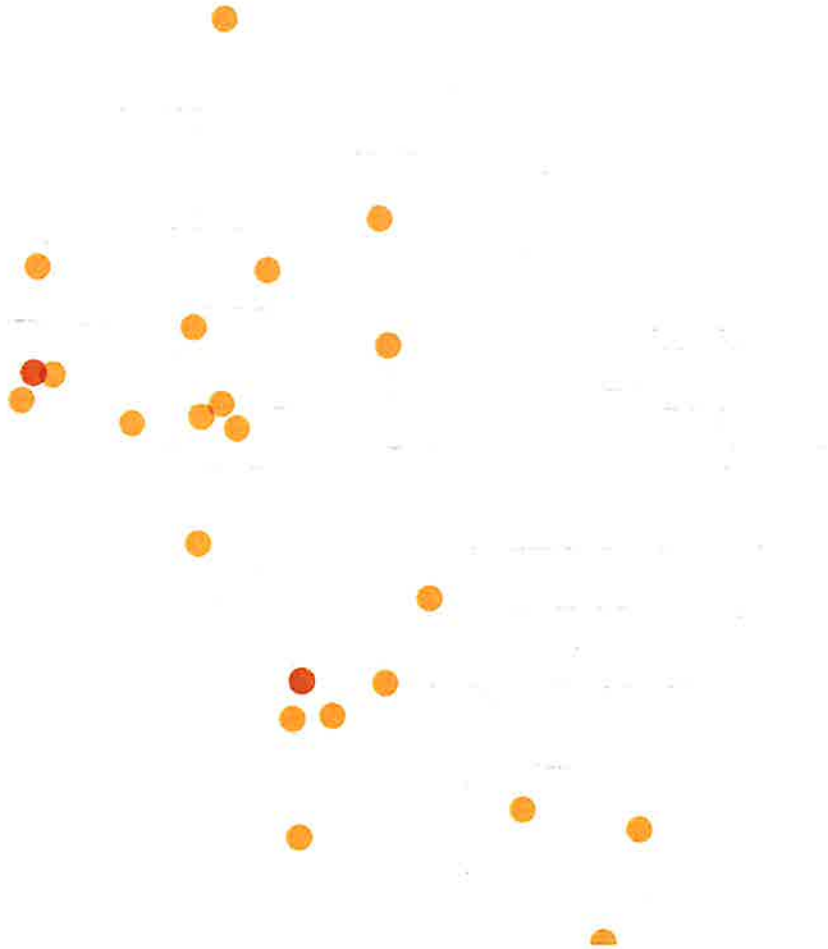


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## Are there any solar farms operating in Wisconsin today?

Yes. There are more than 20 solar farms in Wisconsin that are presently generating electricity for utility use. Many of these are in the range of 1-2 megawatts of solar capacity. A one megawatt solar farm produces enough electricity annually to offset the needs of about 190 average Wisconsin homes.



## Who are the developers of these solar farms?

Most solar farms in Wisconsin and around the country are developed by private companies committed to responsibly meeting local energy needs through the advancement of renewable energy.

## Who uses the energy from these solar developments?

Wisconsin does! Thus far, all solar farms built or proposed in Wisconsin are owned by, or sell their electricity to, Wisconsin electric providers. Among the Wisconsin utilities purchasing solar energy and using it to serve their many customers are Dairyland Power Cooperative, Xcel Energy, Alliant Energy, WPPI Energy, River Falls Municipal Utilities, and New Richmond Utilities. Madison Gas & Electric, WPPI Energy and Wisconsin Public Service have publicly stated their intentions to acquire more solar energy from Wisconsin-based large-scale solar projects.

## Are there new solar farms in the works?

Yes. Four proposed projects ranging in size from 99 to 300 megawatts have been announced or have entered a permitting process. The table below describes these projects:

PROJECT NAME	LOCATION	SIZE OF PROJECT	ANTICIPATED DATE ONLINE	PERMITTING STATUS
Point Beach Solar	Manitowoc County	99 megawatts	December 2021	State permit not required; Power purchase agreement signed with WPPI Energy
Badger Hollow Solar Farm	Iowa County	300 megawatts	December 2020	State permit application filed
Two Creeks Solar	Manitowoc County	150 megawatts	December 2020	State permit application filed
Badger State Solar LLC	Jefferson County	149 megawatts	Not yet determined	Permit application Expected Fall 2018

There are also numerous smaller solar farm projects in development across Wisconsin.

## Why is solar energy being pursued as a source of grid power?

The most important driver behind the growth of solar is the declining cost of solar power technology and installation. The cost to install solar has declined 75% or more in the last decade. The cost of new large-scale solar generation has dropped to the point where it is cost-competitive today with traditional coal and natural gas power plants.



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## How much land is required for solar farms?

A good rule of thumb is five to seven acres of land are used for every megawatt of solar power capacity. A solar developer will seek to contract for additional land to provide more flexibility in laying out the arrays, routing interconnection corridors, and to meet state requirements for alternative siting options.

## What government agencies are involved in approving these types of projects?

All local governments located in a project's footprint are involved in reviewing zoning for these projects. Permits for the land to be used for large solar energy generation projects are reviewed by local township boards and the county board(s). This is typically accomplished through a Conditional Use Permitting process.

RENEW Wisconsin believes solar farms should remain zoned "agricultural" where applicable, with a conditional use permit to allow for solar energy generation. This is for two reasons. First, to increase the chances that the land will go back into agriculture after the solar project's lifetime. Second, plantings under the arrays can be designed to support agricultural purposes such as supporting pollinators, rebuilding the soil, and provide similar functions as land in the federal Conservation Reserve Program (CRP).

Solar farms sized 100 megawatts and larger also must gain approval from the State of Wisconsin's Public Service Commission. This process is called a Certificate for Public Convenience and Necessity, or CPCN.

There are opportunities for public comment at the township, county, and state levels. These projects are reviewed by many state and local agencies to encourage responsible and low impact development.

## Electricity usage in Wisconsin has been relatively stable. What need is there for new solar projects?

Wisconsin utilities are planning to retire several coal and natural gas plants in the next two to three years and this electricity capacity needs to be replaced. The cost of solar has declined tremendously, making solar projects an economic solution. Utilities estimate that large solar projects will meet their needs for summertime peak power capacity at the lowest cost compared to alternatives such as natural gas or coal power plants.

## How do solar farms benefit landowners?

Solar farms are often placed on privately owned land. Participating landowners voluntarily lease their land to host all or a portion of a solar farm and receive annual lease payments in return. The



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participating landowners find that the long-term lease payments are financially attractive, often because they can help supplement farm income and provide a hedge against changing commodity prices for corn, soybeans, milk, and cattle.

Participating landowners bear no construction or operating expenses for the solar arrays. The project will be decommissioned and the land will be restored at the end of the solar farm's useful life.

## How can solar farms benefit local governments?

In Wisconsin, owners of solar farms greater than 50 megawatts pay annually into a utility aid fund which is shared with the local governments where the solar farm is located. Under the revenue sharing formula currently in place, a qualifying solar farm will contribute \$2,333 per megawatt (MW) per year to the county and \$1,667 per MW to the township(s) hosting the project, for a total of \$4,000 per MW per year.

For example, a 100 MW solar farm would provide approximately \$233,000 annually to the host county and approximately \$167,000 annually to the host township(s). Over the first 25 years of such a project's operating life, over \$10 million would be provided to the local governments where the project is located.

For projects 50 megawatts are larger, the private land leased to a solar farm becomes exempt from local property taxes. Although this land will no longer pay property taxes, the net gain to the local governments is estimated to be at least 10 times higher than the lost property taxes. For example, a 300 megawatt project being pursued in Wisconsin has found that the property taxes currently paid to local governments amount to less than \$100,000 for the land that would be transferred into a solar lease. In contrast, \$1,200,000 will be paid annually to the local governments if the solar project is approved.

## How can solar farms benefit community residents?

With a fresh flow of revenue generated from solar farms, local governments will have the option of either allocating those dollars toward essential public services, reducing property tax rates broadly, or both. A few Wisconsin jurisdictions that host renewable energy projects have used shared revenues to supplement their road maintenance and repair budgets, while others have augmented police and fire service through vehicle and equipment purchases. Utility local aid revenue has no strings attached to it, thereby enabling local elected officials to use their discretion to decide how the revenue can best serve their communities.

## Can hosting solar panels help agricultural land?

Yes. The land that supports solar arrays can be revegetated with a range of low-lying, deep-rooted plants, grasses, and flowers that can rebuild the soil. In addition, these plantings can support honey bees, butterflies, hummingbirds, and other pollinators whose populations are facing threats.



## Is the conversion of agricultural land to solar generation permanent?

No. Modern large-scale solar installations use steel posts that are driven or screwed into the ground, but do not use concrete pilings. This means that the land can very easily be converted back to farmland after the life of the solar project. The life of the project is estimated to be 25-40 years. Upon the conclusion of the lease and the decommissioning of the project, the landowner is able to resume traditional agricultural operations on the land.

Notwithstanding the growth of farm-based solar generation across the United States, the total amount of agricultural land being used for solar energy is small compared with the permanent conversion of agricultural land to residential housing and commercial development.

In fact, Wisconsin could produce about 50% of our annual electricity needs through the use of solar panels on only 150,000 acres of land. For comparison, as of 2016 the total harvested land in Wisconsin was approximately 8,857,500 acres. In 1982, total harvested land was approximately 10,062,154 acres.

## Can solar panels withstand strong winds?

Testing by solar manufacturers includes a certification that the panels can withstand winds of up to 140 miles-per-hour, the equivalent of a Category 4 hurricane. In real-world performance, there are reports that nearly all solar panels located in areas hit by Superstorm Sandy (2012), Hurricane Michael (2016), and Hurricane Irma (2017), survived the high winds with few panels damaged beyond functionality. Any other losses were due to the destruction of an entire roof or structure.

## Are solar panels a safe technology?

Yes. Solar panels are safe to touch, attach to your home, and install in your neighborhood or town.

Panels are primarily made of glass, aluminum, copper, and other common materials. Solar projects also utilize steel racks to position panels, electrical cable and inverters and electric transformers to deliver power to the grid. All of this equipment is safe and contains the same materials that are found in household appliances. There are trace amounts of chemicals in solar panels that enable them to produce electricity. These compounds are completely sealed within the glass and coatings of the panels.

After their useful life, solar panels and equipment are easy to disassemble and recycle. Solar facilities are constantly monitored, and the owners have a business interest in keeping them well-maintained and operating properly. Solar plants are designed to withstand severe weather, and panels are built to last for up to 40 years. If solar panels are damaged, they can be quickly replaced with new ones.

(Credit for this Q&A: Illinois Solar Energy Association)

## What is it like living next to a solar farm?

Solar farms are quiet neighbors. They are a very low-impact development within communities. Unlike using natural gas or coal to generate power, they do not combust anything and thus have no pollution. They do not create any odors or output any chemicals.

Solar farms use no water for their operation. This is also in stark contrast to using coal or natural gas to make electricity.

The only audible noise is from cooling fans within equipment (inverters and transformers) that move the electric power to the grid, and those only operate when the sun is shining and power is being produced. After the sun goes down, there is no audible noise from the solar equipment.

Native vegetation under the arrays can improve water quality and reduce runoff in the area.

## Will there be stray voltage from a solar farm?

No. The collection and transmission lines used in these modern solar farm effectively prevent stray voltage. These lines are significantly different than what might be seen in local distribution systems or low-voltage wiring in sheds, barns, and dairy facilities.

## Will glare from the solar panels be a problem?

No, this is actually a common misconception about solar PV modules. Solar modules are made to absorb sunlight, not to reflect it. Solar modules are flat, have a relatively smooth surface, and are covered with anti-reflective coatings. Modern PV modules reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles.

## What happens if there is snow on the solar panels?

In larger solar farms, the solar panels rotate throughout the day. When they are tilted, snow will slide off on its own. If some portion of the panels are covered in snow, the remaining portion can still generate power and, in doing so, will generate some heat that will encourage melting of the rest of the snow.

## How do solar panels produce power when it's not sunny?

At night the solar panels go into standby mode and do not produce any energy. However, even on cloudy days the panels are producing power.



## Can some of the solar power be stored in batteries to use at night?

A “Battery Energy Storage System” (BESS) is a potential accessory to a solar project. Battery storage could provide many benefits, including:

- Allowing the solar energy to be stored and released at different parts of the day
- “Smooth” the output of solar electricity on partly cloudy days
- Help maintain the proper frequency of electricity on the grid
- Potentially could be used for backup emergency power

## How many jobs will be created to construct and operate a solar farm?

As an example, a 300 MW project might create 500 new local jobs while in construction, and 5 operations and maintenance jobs once it is operational.

## Do solar farms protect the wildlife in the area?

Solar PV projects by themselves do not present a significant risk to wildlife. When native meadow ground cover is used, the project will create new habitat for pollinating insects and birds, as well as improve water quality for local aquatic species. Projects are also required to install fencing, which keeps wildlife out and reduces risk to animals in the area.

## Are the solar panels or any of the other components made in Wisconsin?

Although we do not have any solar panel manufacturing in Wisconsin, many of the parts needed to build and operate solar farms are indeed made in Wisconsin.

## Largest Grid-Connected Solar Generating Facilities in Wisconsin

March 2021

	Name	Installation Owner or Host	County	Capacity (in kW)	Year	Utility/ REC Customer
1	Two Creeks	WEC Energy Group + Madison Gas + Electric	Manitowoc	150,000 AC	2020	WPS/MGE
2	Dane County Airport	Madison Gas + Electric	Dane	9,000 AC	2020	MGE/Dane County (RER)
3	Middleton Morey Field	Madison Gas + Electric	Dane	5,000 AC	2020	MGE Shared Solar + 2 RER customers
4	Arcadia Solar-BluEarth	BluEarth Renewables	Trempealeau	7,450 DC 5,000 AC	2019	UMMEG/ Arcadia Municipal/ Organic Valley
5	Fennimore Solar	BluEarth Renewables	Grant	4,110 DC 3,000 AC	2019	UMMEG/ Fennimore Utilities/ City of Madison
6	New Auburn Solar	ENGIE (New Auburn)	Chippewa	2,750 AC	2017	DPC/CVEC
7	New Lisbon Solar	BluEarth Renewables	Juneau	3,540 DC 2,500 AC	2019	UMMEG/ New Lisbon Utilities/ City of Madison
8	Cumberland Solar	BluEarth Renewables	Barron	3,390 DC 2,500 AC	2019	UMMEG/ Cumberland Municipal/City of Madison
9	Flambeau Solar	CMS Enterprises (Flambeau)	Price	2,500 AC	2017	DPC/Price
10	We Energies Solar Now	We Energies	Milwaukee	2,250 AC	2020	Array located on property owned by Harley Davidson, Menomonee Falls
11	We Energies Solar Now	We Energies	Washington	2,250 AC	2019	Array located on property owned by Washington County, in West Bend

12	We Energies Solar Now	We Energies	Kenosha	2,250 AC	2020	Array located on property owned by UW-Parkside
13	Cashton Solar	BluEarth Renewables	Monroe	2,560 DC 2,000 AC	2019	UMMEG/ Cashton Municipal/ City of Madison
14	Warren Solar	ENGIE (Warren)	St. Croix	2,340 DC 1,500 AC	2017	DPC/St. Croix
15	Rock River 1	Hanwha Q CELLS USA <sup>1</sup>	Rock	2,280AC	2016	Alliant
16	Elroy Solar	BluEarth Renewables	Juneau	2,100 DC 1,500 AC	2019	UMMEG/ Elroy Utilities/City of Madison
17	Medford Solar	ENGIE (Medford)	Taylor	2,000 AC	2017	DPC/Taylor
18	Whistling Winds Solar	ENGIE (Whistling Wings)	Monroe	1,700 AC	2017	DPC/Oakdale
19	Liberty Pole Solar	ENGIE Liberty Pole)	Vernon	1,300 AC	2017	DPC/Vernon
20	Sand Lake Solar	ENGIE (Sand Lake)	Polk	1,250 AC	2017	DPC/Polk-Burnett
21	Mt. Hope Solar	ENGIE (Mt. Hope)	Grant	1,250 AC	2017	DPC/Scenic Rivers
22	Downsville Solar	ENGIE (Downsville)	Dunn	1,100 AC	2017	DPC/Dunn
23	Arcadia Solar-Engie	ENGIE (Arcadia)	Trempealeau	1,100 AC	2017	DPC/Riverland
24	Lafayette Solar	BluEarth Renewables	Lafayette	1,100 DC 800 AC	2019	UMMEG/Argyle Municipal/City of Madison
25	Sauk Solar	ENGIE (Sauk)	Vernon	1,000 AC	2017	DPC/Vernon
26	Conrath Solar	ENGIE (Conrath)	Rusk	1,000 AC	2017	DPC/Jump River
27	Lafayette-Engie	ENGIE (Lafayette)	Chippewa	1,000 AC	2017	DPC/Eau Claire
28	City of Jefferson Solar	Half Moon Ventures	Jefferson	1,000 AC	2013	Jefferson Utilities
29	Eau Claire Solar	OneEnergy Renewables (Community Solar)	Eau Claire	1,000 DC 700 AC	2017	Xcel-NSPW
30	Ore Dock Solar	OneEnergy Renewables (Community Solar)	Ashland	1,000 DC 700 AC	2019	Xcel-NSPW

31	Endicott Solar	OneEnergy Renewables (Community Solar)	Monroe	1,000 DC 700 AC	2019	Xcel-NSPW
32	Member Solar	Eau Claire Energy Cooperative Community Solar	Eau Claire	750 AC	2015	ECEC
33	Ash Ridge	Engie (Ash Ridge)	Richland	600 AC	2017	DPC/Richland County
34	Dairyland-Westby	Clean Energy Collective	Vernon	517* DC	2014	DPC
35	MGE-MOC Solar	Madison Gas + Electric Shared Solar	Dane	500 AC	2017	MG&E
36	Vernon Electric Community Solar	Clean Energy Collective	Vernon	305* DC	2014	Vernon Electric
37	Bayfield Community Solar	Bayfield Electric Cooperative Community Solar	Iron River	300 AC	2016	Bayfield Electric
38	New Richmond Community Solar	New Richmond Community Solar	New Richmond	250 AC	2015	New Richmond Utilities
39	River Falls Community Solar	River Falls Community Solar	River Falls	250 AC	2015	River Falls Municipal Utilities

\* DC rating – AC equivalent ~75%

Prepared by RENEW Wisconsin, March 2021





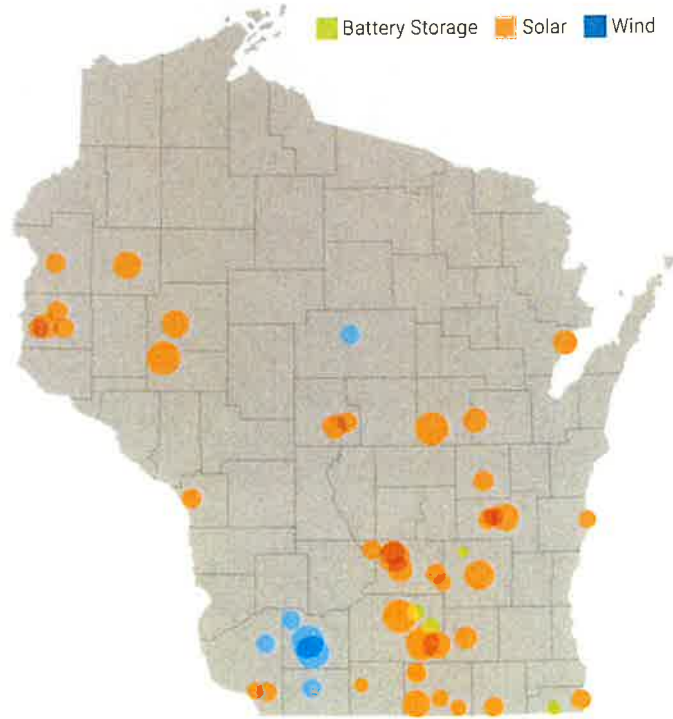
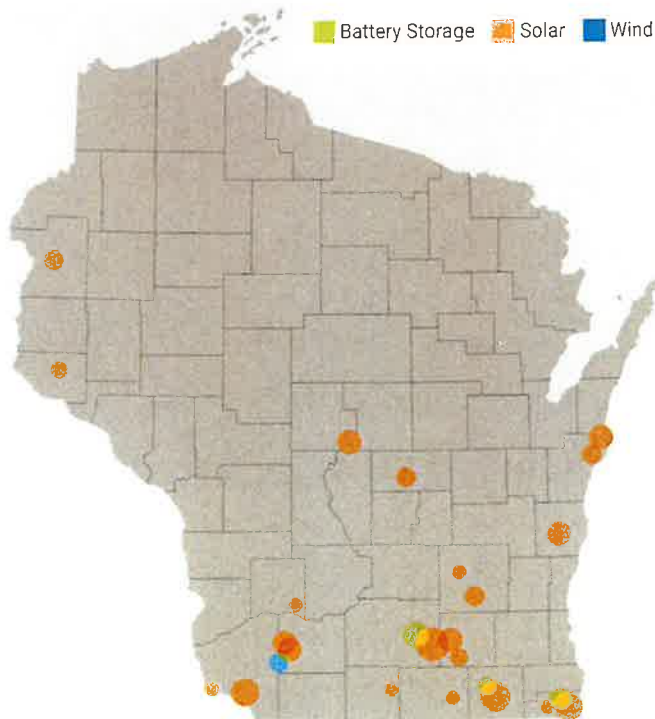
# LARGE SCALE SOLAR & WIND DEPLOYMENT FOR WISCONSIN

## WISCONSIN SOLAR, WIND, AND STORAGE UNDER DEVELOPMENT OR RECENTLY ONLINE AS OF JULY 2021

2,697 MW Solar  
99 MW Wind  
350 MW Storage

## POTENTIAL WISCONSIN SOLAR, WIND, AND STORAGE BASED ON MISO QUEUE AS OF JULY 2021

5,620 MW Solar  
992 MW Wind  
225 MW Storage



## RENEW WISCONSIN'S AGENDA TO ACCELERATE LARGE SCALE SOLAR & WIND DEVELOPMENT

### SOLAR FOR CORPORATIONS AND LOCAL GOVERNMENTS

Working with electric providers to offer a low-cost service to large customers that desire clean energy.



### POLLINATOR PLANTINGS UNDER THE ARRAYS

Working with solar developers to landscape their projects with pollinator gardens that sustain bird and bee populations.



### SUPPORTING LARGE SOLAR AND WIND DEVELOPERS

Facilitating regulatory approvals through outreach to citizens and media.



## HELPING UTILITIES MEET THEIR VOLUNTARY RENEWABLE COMMITMENTS

Our largest utilities' current renewable mix and stated goals.

UTILITY	NO. OF CUSTOMERS	2020 TOTAL RENEWABLES MIX	STATED GOAL
WEC (We Energies and Wisc. Public Service)	1.14 million + 446,000	WE 6.2% WPS 7.0%	80% CO2 reduction by 2030 Carbon neutral by 2050
Alliant	470,000	21.2%	33% renewables by 2024 100% CO2 reduction by 2050
Madison Gas and Electric	153,000	15.5%	30% renewables by 2030 100% net-zero CO2 by 2050
Xcel Energy	241,000	32.9%	80% CO2 reduction by 2030 100% carbon-free by 2050
Dairyland Power	263,000	18.4%	PPAs for 98 MW Wind (2017), 149 MW Solar (2023)
WPPI Energy	200,000+	12.4%	PPAs for 132 MW Wind (2018) and 100 MW Solar (2021)



### RENEW WISCONSIN

214 North Hamilton, Suite 300 • MADISON, WI 53703  
608.255.4044 • [www.renewwisconsin.org](http://www.renewwisconsin.org)

## Wisconsin

### Key Figures

#### Total Solar Installed

**854.52 MW**

395.02 MW in 2021

#### National Ranking

**26th**

Ranks 15th in 2021

#### Solar Jobs<sup>1</sup>

**2,910**

Ranks 26th in 2020

#### Growth Projection

**3,256.60 MW over the next 5 years**

Ranks 12th



Enough solar installed to power:

**135,936 homes**



Percentage of state's electricity from solar:<sup>2</sup>

**1.03%**



Price decline over the last ten years:

**50%**

There are **145** solar companies operating in Wisconsin.<sup>3</sup>



**40**

Manufacturers



**63**

Installers/  
Developers



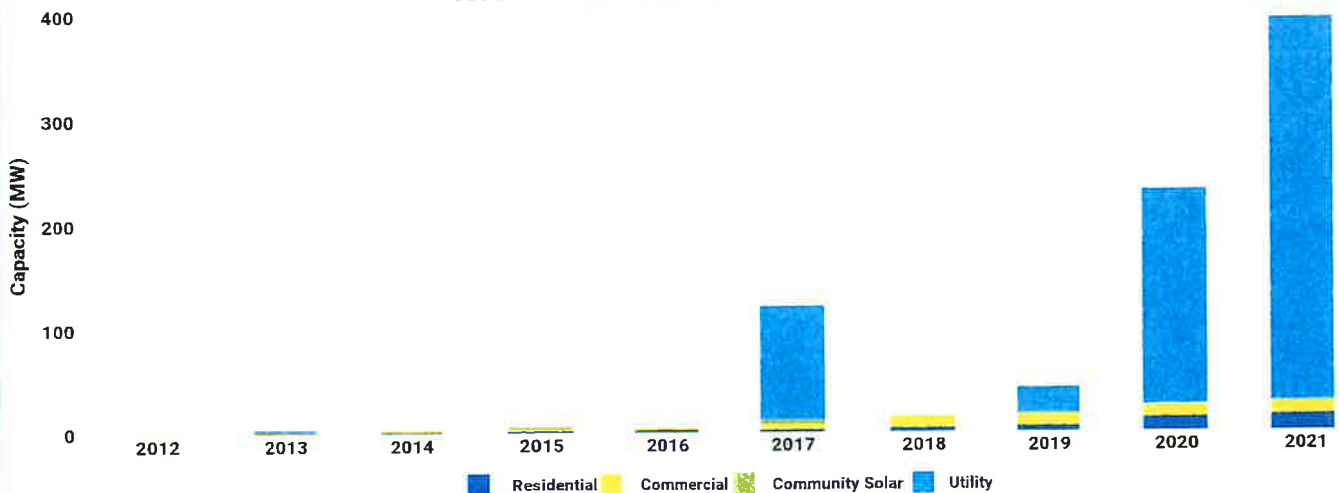
**42**

Others



The solar industry has invested **\$1,060.58 million** in Wisconsin, including **\$414.57 million** in 2021

### Wisconsin Annual Solar Installations

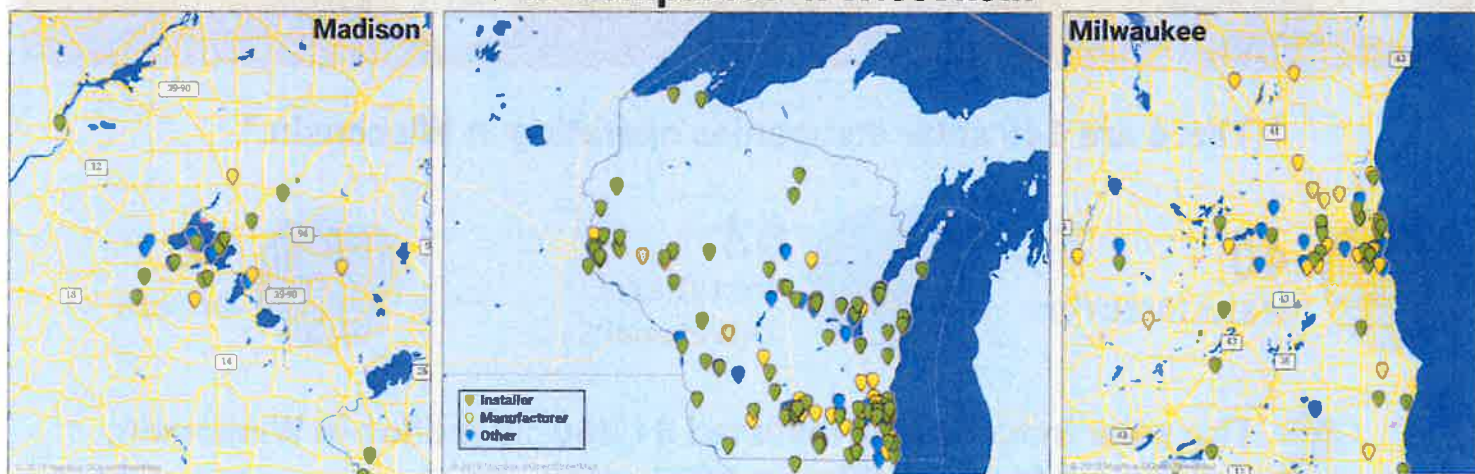




## More information about solar energy in Wisconsin<sup>4</sup>

- New Auburn DPC Solar has the capacity to generate 2.5 MW of electricity -- enough to power over 376 Wisconsin homes.
- Target is one of the first major corporations to go solar in Wisconsin with its 0.38 MW project in Oak Creek.
- At 2 MW, Warren DPC Solar in Warren is among the largest solar installations in Wisconsin. Completed in 2017, this photovoltaic project has enough electric capacity to power more than 331 homes.

## Solar Companies in Wisconsin



## References

All data from SEIA/Wood Mackenzie Power & Renewables, Solar Market Insight<sup>®</sup> unless otherwise noted: <https://www.seia.org/smi>

<sup>1</sup>National Solar Jobs Census 2020: <https://www.seia.org/research-resources/national-solar-jobs-census-2020>

<sup>2</sup>Energy Information Administration, Electric Power Monthly: <https://www.eia.gov/electricity/monthly/#generation>

<sup>3</sup>SEIA, National Solar Database: <https://www.seia.org/research-resources/national-solar-database>

<sup>4</sup>SEIA, Solar Project Tracker (includes Solar Means Business: <https://www.solarmeansbusiness.com>, Major Solar Projects List: <https://www.seia.org/research-resources/major-solar-projects-list> and Solar in Schools: <https://www.seia.org/research-resources/brighter-future-study-solar-us-schools-0>)

The Solar Energy Industries Association<sup>®</sup> (SEIA) is leading the transformation to a clean energy economy, creating the framework for solar to achieve 30% of U.S. electricity generation by 2030. SEIA works with its 1,000 member companies and other strategic partners to fight for policies that create jobs in every community and shape fair market rules that promote competition and the growth of reliable, low-cost solar power. Founded in 1974, SEIA is the national trade association for the solar and solar + storage industries, building a comprehensive vision for the Solar+ Decade through research, education and advocacy.

**Village of Harrison**  
**September-22 Zoning Permit Report**

	Current Year			Previous Year		
	Permits	YTD Permits	Estimated Value	YTD Permits	Estimated Value	YTD Estimate Value
<b>Residential</b>						
Single Family	1	43	\$ 380,000	83	\$ 2,555,799	\$ 35,589,249
Two Family (units)	0	( 0 )	\$ 0	2	\$ 0	\$ 1,200,000
Multi Family (units)	0	( 0 )	\$ 0	2	\$ 0	\$ 26,800,000
Additions	0	10	\$ 0	13	\$ 367,500	\$ 1,016,615
Acc. Structures	0	18	\$ 0	24	\$ 16,700	\$ 427,195
Miscellaneous	4	83	\$ 21,350	99	\$ 15,522	\$ 720,549
<b>Total Residential</b>	<b>5</b>	<b>156</b>	<b>\$ 401,350</b>	<b>223</b>	<b>\$ 2,955,521</b>	<b>\$ 65,753,608</b>
<b>Com./Ind.</b>						
New	0	5	\$ 0	1	\$ 0	\$ 550,000
Additions	0	1	\$ 0	1	\$ 0	\$ 1,825,000
Acc. Structures	1	1	\$ 15,000	0	\$ 0	\$ 0
Miscellaneous	0	12	\$ 0	7	\$ 35,000	\$ 118,500
<b>Total Com./Ind.</b>	<b>1</b>	<b>19</b>	<b>\$ 15,000</b>	<b>9</b>	<b>\$ 35,000</b>	<b>\$ 2,493,500</b>
<b>Combined Total</b>	<b>6</b>	<b>175</b>	<b>\$ 416,350</b>	<b>232</b>	<b>\$ 2,990,521</b>	<b>\$ 68,247,108</b>

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Number of Vacant Lots Remaining

130