LAKES TO LAND REGIONAL INITIATIVE

Arcadia Township People and Land

ADOPTED SEPTEMBER 3, 2014

Figures, Maps, Tables

4.1: Nonmotorized transportation map	P-5
4.2 Demographic dashboard	P-12
4.3: Number of workers by income	P-14
4.4: Net Worth	P-15
4.5: Non-retail earnings vs. retail etc. earnings	P-16
4.6: Retail marketplace summary	P-17
4.7: Arcadia "workshed"	P-19
4.8: Arcadia Bluffs Golf Course (left), Sunset Station (right)	P-20
4.9: Building M-22. Photo: Arcadia Area Historical Society	P-23
4.10: Road conditions	P-24
4.11: Recreational trails	P-25
4.12: Renewable energy potential	P-27
4.13: Proposed Merit fiber-optic network	P-28
4.14: Broadband service inventory	P-29
4.15: Land dashboard	P-32
4.16: Natural Features map	P-33
4.17: Existing land use chart and map	P-34
4.18: Density-based zoning	P-37
4.19: Deed restrictions vs. zoning	P-40
4.20: Future land use map	P-42
4.21: Zoning chart	P-48
4.22: Action plan	P-51



Expectations

In terms of both actual numbers and proportion of residents, the Visioning Session in Arcadia Township had the strongest turnout of any Lakes to Land community. What's more, the over 100 citizens in attendance spoke in unconventional unison: by margins of three to one, they were proud of the Pleasant Valley Community Center, insisted on better harbor dredging, and pointed to lack of money as the single biggest obstacle to their goals.

Not at all shy about creative problem solving, Arcadians proposed a wide range of methods to achieve funding for their goals that included grants, fees, donations, projectspecific fundraisers, and tax assessments. They were also well-versed in governmental units at every level, from broad suggestions to appeal to the Michigan Department of Transportation for help revitalizing the M-22 streetscape to the specific directive to examine the potential for a public sewer system in the township. Should direct appeal by already-interested citizens fail to garner the response they were hoping for, vision session attendees were ready to recruit backup by encouraging seasonal residents to become Michigan residents in order to vote and offering to launch massive letter campaigns to politicians.

Collaboration figured largely in Arcadians' preferred future. Asked who should be "in the sandbox" to help achieve their goals, their unified voices suddenly thinned in equal support for Camp Arcadia, the Grand Traverse Regional Land Conservancy, the Lions' Club, PVCC, the business community, and the township board and planning commission. They felt they could join forces with other Lake Michigan communities in need of dredging help and also connect with boating clubs to promote the need for it. To achieve better connectivity among nonmotorized trails, vision session participants recommended both reaching out to hiking and biking clubs and making physical connections with existing trails. Geologists, biologists, and birders could be enlisted to support and shape efforts to develop ecotourism in the community.

The following pages present "Cornerstones," or goals formulated by the Arcadia Township Planning Commission to guide future development. Each includes a set of "Building blocks," specific strategies to be implemented to achieve those goals. At the bottom is the "Foundation" that supports each Cornerstone: its linkage to the citizens' stated priorities and to the Manistee County Master Plan.

Cornerstone

Continue to provide support for Arcadia Township's four-season harbor with sufficient amenities to service multiple users and types of uses.

Arcadia Harbor is a vital resource serving multiple purposes to the residents of Arcadia as well as the region and the state. It is one of 16 Great Lakes shallow draft recreational harbors classified as a Harbor of Refuge by the US Army Corps of Engineers' Great Lakes Navigational System, providing boaters with safe haven during foul weather and offering safe, high-quality public facilities to seasonal boaters. The harbor contains a 1,100-foot federallymaintained channel, with a dredged depth of 9 feet, between Lake Michigan and Lake Arcadia, and it includes a 2,400-foot maintained pier. Shallow-draft harbors in

Michigan become blocked by sediment accumulations, a problem worsened by low lake levels in recent years. The local community has established significant infrastructure around the harbor facilities which generates income from harbor users and visitors to the area.

Arcadia Township owns and maintains Arcadia Veterans Memorial Marina. Marina amenities include water, electricity, free wireless internet access, restrooms, showers, gasoline, diesel, pump-out, ice, boat launch, long term

parking, dog run, 24-hour security, playground/park, grills, picnic tables and laundry. There are 17 season slips and 17 transient slips. Regionally, and within Arcadia, residents utilize the harbor for recreational boating, fishing, swimming, canoeing, kayaking, ice fishing, and ice boating. Shallow draft harbors also provide a spur for economic growth in the form of upscale housing and marinas, along with the attendant businesses they bring. Recreational harbors are a key element of these developments, drawing boat owners, their guests, and transient boaters from other harbors, as well as lending their ambience to help create the special atmosphere that is part of the draw of a lakefront community. The harbor is an important economic incubator



as patrons of the harbor are likely to shop locally, dine at local restaurants, and stay at local lodging establishments.

The most prevalent boat size on the Great Lakes is between 16 and 20 feet in length, representing about 28% of the Great Lakes' recreational fleet; the most popular type of boat is the 16- to 24-foot fiberglass runabout. As discussed in Tab 2, Great Lakes boat owners spend an average of \$3,600 per year on their boats. This includes \$1,400 on craft-related expenses (equipment, repairs, insurance, slip fees) and \$2,200 on trip-related expenses (gas and oil, food and refreshments, onshore entertainment,

lodging) spread out over an average of 23 boating days per season. These averages are heavily weighted toward the high percentage of mostly smaller watercraft. Owners of larger boats spend considerably more, up to \$20,000 per year for boats 41 feet and more. Average spending per boat day on trips varies from \$76 for boats less than 16 feet in length to \$275 per day for boats larger than 40 feet. The greatest trip expenses are for boat fuel (22%), restaurants and bars (17%) and groceries (14%). The majority of annual

craft expenses are for equipment (39%), maintenance and repair (29%) and insurance (14%). Owners of registered watercraft in Great Lakes states spent \$9.9 billion on boating trips in 2003 and \$5.7 billion on craft expenses, for a total of almost \$16 billion.

The direct effects on a community fortunate enough to have a boating harbor include economic activity in businesses selling goods and services directly to boaters and property values up to 30% higher than communities without Lake Michigan access. Secondary benefits include indirect effects on related industries and induced benefits from household spending of income earned directly or indirectly from boaters. All activities associated with the Arcadia Harbor rely on the integrity of harbor. This can be measured by many factors, including the health of the Arcadia Watershed and the ability to enter and exit Lake Arcadia through the channel safely and un-encroached by the buildup of sand. Arcadians have worked diligently to maintain their harbor, addressing a number of issues and undertaking planning efforts to build the harbor infrastructure and facilities. The recreational and economic efforts undertaken and additional proposed plans for the waterfront along Lake Arcadia are directly influenced by and dependent on a fully operational four-season harbor. These efforts include improvements at Grebe Park, Arcadia Veterans Memorial Marina, and Arcadia Sunset Station and Beach Natural Area are part of a larger area master plan and community partners agreement between Arcadia Township, Grand Traverse Regional Land Conservancy, Pleasant Valley Community Center, Manistee Community Foundation, the Alliance for Economic Success, and others in a collaborative initiative to create nature-based recreational opportunities for the residents and visitors of Arcadia.

However, residents are faced with a number of issues that impede the consistent use of the harbor in all aspects that are sought. Additional work is needed to address the most fundamental aspect of the harbor operations: keeping the channel open for ingress and egress to Lake Michigan by removing the buildup of sand that accumulates yearly. Arcadia Harbor requires annual maintenance dredging of approximately 5,000 cubic yards; it was dredged in 2010 using Michigan regional dredging provision funding and currently requires yearly dredging. Not maintaining Arcadia Harbor would have many negative consequences, including devastation of the local economy, loss of local jobs, loss of destination for many transient boaters that launch their boats in Arcadia and fill the marinas, and loss of recreational and charter fishing in the area, resulting in a plummet in property values (US Army Corps of Engineers). Without a clear and safe passage through the channel, the harbor cannot provide safe refuge, boating activity is crippled, and the economic vitality of Arcadia Township is substantially impacted.

Building blocks

- 1. Establish local and regional partnerships to collaborate on the regular maintenance, including dredging, of the Lake Arcadia channel to maintain ingress/egress from Lake Michigan.
- 2. Support local businesses that seek solutions to dredging the channel to Lake Michigan.
- 3. Seek solutions to fix engineering specification deficiencies of the pier design.
- 4. Continue to support the efforts to adequately and appropriately maintain and develop Grebe Park, Arcadia Municipal Marina, and the Pine Street Boat Launch.
- 5. Continue to explore and support opportunities to enhance Arcadia Camp Ground, the Marina, and the First Street waterfront business corridor.
- 6. Form a steering committee and conduct a public visioning session for prioritized redevelopment sites such as Arcadia Camp Ground.
- 7. Work closely with the appropriate entities to address water quality issues, fisheries, invasive species removal, access management, and general watershed management best practices.

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
Arcadia collective priorities	Channel dredging	Improve outdoor activities and develop eco-tourism	M-22 improvements and streetscape	Biking and hiking trails; connectivity

Cornerstone

Develop world-class trail systems that are interconnected and universally accessible.

The desire for improved walkability, connectivity, and barrier-free movement throughout the township and beyond is of great importance to Arcadia Township residents. Developing a well-defined and well-constructed trail system is essential for residents to fully utilize the natural and built environment. As evidenced in a community recreation brainstorming meeting, enjoyment of the natural environment is a significant pastime of, and provides economic opportunity for, many Arcadians. Walking, biking, and other forms of nonmotorized transportation require supporting infrastructure such as maintained sidewalks with sufficient curb cuts, road striping, and a network of signage that navigates the user throughout the trail system in a safe manner. Developing the trail system route and determining the type of transportation modes is the first step to reaching the goal of walkability.

The potential for a thoroughly walkable community linking natural resources, economic centers, and places where

Building blocks

- 1. Review and work in partnership with the Arcadia Township Recreation Committee.
- 2. Work collaboratively with partners to develop a regional trail system linking multiple points of interest.
- Assess and consider campaigning to become a M-22 Heritage Route linking the already designated sections of M-22 into Manistee County.
- 4. Survey and assess the functionality and integrity of the existing sidewalks in the Township.
- Conduct a wayfinding campaign to provide visual cues necessary to direct residents throughout the trail systems and community at large.
- 6. Review, assess, and update local ordinances to include trail system strategies.
- 7. Promote and enhance the Pleasant Valley Community Center as the Welcome Center/Trail Hub.
- 8. Conduct a street survey, in partnership with the Manistee County Road Commission, to understand the needs for accommodating trail system needs on the existing street system.

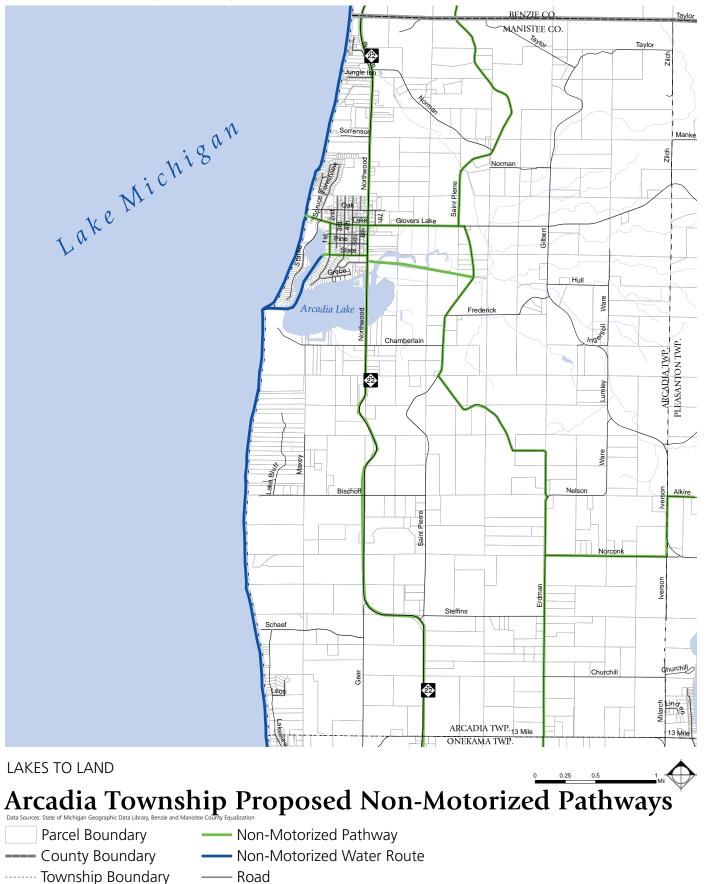
Foundation

Manistee County master plan goals	Economy: increase job opportunities	Encourage a variety of housing types and choices	Eliminate land contamination and protect surface and groundwater quality	Protect agricultural areas by focusing growth in areas with infrastructure
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residents live, play and work is very favorable. Arcadia Township is collaborating with the Grand Traverse Regional Land Conservancy to develop Arcadia Marsh-located just southeast of the harbor and lakes area-and is engaged in planning points of interest at Grebe Park and Arcadia Natural Beach Area. Some maintenance of urban core sidewalks has recently alleviated several major heaves resulting from growth of the 120-year-old trees that line the urban center streets. A visual survey of the areas which will someday connect the Marsh and Lake areas reveals that walkability of the community at large is challenging due to poor and unreliable sidewalk conditions throughout the urban center, inadequate space on the road to accommodate cyclists and walkers, and lack of signage and well-defined trail routes. The community needs to clearly articulate, define, and then build the infrastructure for trail and walking systems.



4.1: Nonmotorized transportation map



Note; Pathways along M-22 take advantage of a wider shoulder and/or will be built adjacent to M-22.

Cornerstone

Provide an atmosphere that promotes and supports economic development opportunities.

Placemaking is at the heart of the economic development strategy in Arcadia Township. Placemaking is the development of spaces which offer attractive cultural, social, and natural resource amenities based on regional assets. These places provide professional and social infrastructure to support citizens' endeavors and offer a lifestyle that suits their desires. Factors considered in the development of Arcadia Township's goals included leveraging and building on community assets, diversifying its economic base in order to attract and retain talented, well-educated workers, and understanding its role in the region.

Natural resources are among the most significant assets the Township has to offer: its land, water, and vistas. Harnessing the economic benefits of these outdoor attributes and directly linking them is key to the economic engine of the township, as is building on other natural resource opportunities. The agriculture community has always been important to economic prosperity in Arcadia Township, and support of it is a deeply rooted value of the residents. Tourism, building a location that is attractive for new residents, and retaining current residency are all central to Arcadia's economic strategy. The economy is fed by visitors who stop in the township to gaze at the breathtaking scenery from one of the many ridgelines of Lake Michigan, eat at the local restaurants, shop at the retail stores, and seek lodging. There is a need to define the commercial areas within the community, specifically the M-22 corridor, Lake Street, and First Street. Land use regulations and physical infrastructure improvements are proposed to assist in this effort. Linking the economic activities and community assets in a well-defined and developed trail system is essential to tie all the elements together into a cohesive whole.

Making the type of "place" people want to visit, move to, or recreate in will involve strategies centered on developing and utilizing the natural resources and defining the physical space in which these activities occur. With that said, maintaining the rural scenic character by being stewards of the natural resource assets is seen as partnering in the economic development of the Township.



Building blocks

- 1. Develop community and economic development tools that are available within the State of Michigan and elsewhere.
- Assess adopting a Development Rights Ordinance with the expressed purpose of becoming eligible to participate in the Agriculture Preservation Fund Program, which would help fund the purchase of Development Rights Agreements for interested members of the agricultural community.
- 3. Implement applicable aspects of the 2010 M-22 Economic Development Strategy, specifically the strategies that call for streetscape improvements to create a sense of place and character, zoning revisions that encourage collections of stores rather then strip units, walkability, and connectivity throughout the community and region.
- 4. Continue to leverage natural resource assets, in partnership with the Recreation Plan, as part of the Arcadia economic development strategy.
- 5. Establish in the Zoning Ordinance a waterfront business district that includes Grebe Park, Arcadia Beach, Arcadia Camp Ground and the Arcadia Municipal Marina as one cohesive economic unit and linking it with the historic business district on Lake Street.
- 6. Seek out economic development strategies and opportunities to further develop business corridors of the Township.
- 7. Encourage and assist development of Camp Arcadia and other existing businesses.
- 8. Encourage and assist development of agriculture vitality strategies.
- 9. Revise the home occupation regulations in the zoning ordinance to ensure that they meet the needs of the community.
- 10. Explore the possibility of installing a sanitary sewer system for some of the township.
- 11. Review the Michigan Economic Development Corporation Redevelopment Ready Communities Best Practices guide to determine if it is appropriate for Arcadia to become certified as a Redevelopment Ready Community.

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Photo: Up North Memories by Don Harrison

Cornerstone

Support efforts that are aimed at protecting, managing, enhancing, and providing appropriate access to the natural resources within the township.

In a township with such an abundance of natural resources, the way in which they are managed, cared for, and protected is critical to ensuring that future generations have the same opportunities to utilize those resources as have benefitted past generations. In Arcadia, natural resources provide the economic and recreational opportunities that attract and retain residents. The spectrum of uses ranges from agriculture and timber to beach bathing, bird watching, and night sky viewing. Maintaining the environment to continue the very essence of residents' way of life is ingrained in every effort undertaken to plan for the township, and this stewardship is laced with the rationale that planning methods should be respectful of property rights.

Efforts to restore and enhance Arcadia Marsh and Arcadia Natural Beach Area are on-going and require continued support. These and similar planning and redevelopment efforts are geared toward enhancing the recreational opportunities for the community while also developing nature-based tourism and placemaking as the basis for the economic development strategy within the township. The Arcadia Watershed is a very important natural resource that is in need of focused attention, and the township recently convened a Leadership Team to spearhead the development of an Arcadia Township Watershed Plan. Watershed planning will be essential to understanding key factors such as protecting wildlife habitat and improving natural resources, giving citizens an active voice in protecting and restoring natural resources important to the community, providing a framework and rationale to pursue funding opportunities, and providing a focused data collection and analysis methodology. In 2012, Lake Arcadia was the subject of an updated Michigan Department of Natural Resources fish count; this type of effort needs to be enhanced and built upon. In addition, factors such as road access management into the undeveloped portions of the watershed, preserving the scenic rural character of the township, and the management of the watershed and associated lands are all natural resource enhancement and management issues that folks in Arcadia Township wish to address.

Building blocks

- 1. Support the Arcadia Marsh, Grebe Park, Arcadia Beach, and Arcadia Dunes projects as well as others as they become available.
- 2. Support partnerships with entities that help enhance the Natural Resource Protection and Management goals.
- 3. Consider developing a Scenic Rural Preservation Plan.
- 4. Assess and consider Arbor Day Foundation standards to become a "Tree City USA."
- 5. Consider commissioning a migratory bird/waterfowl assessment by a trained avian scientist.
- 6. Develop and improve road access and stormwater management standards.
- 7. Support the development of Dark Sky strategies and policy.
- 8. Support the development of an Arcadia Watershed Plan.

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Cornerstone

Expand opportunities that promote cohesion, stability, and well-maintained neighborhoods.

The Township of Arcadia has a distinct urban core located in a well-defined geographical area that is close to the business corridors, waterfront, and public and semi-public buildings (Fire Hall, Township Hall, Arcadia Township Museum, Pleasant Valley Community Center, Arcadia Branch Library, Post Office, parks). The neighborhoods in the urban center of the township are a gem in the rough. A traveler wandering the streets will gaze upon tree-lined streets with historical houses and sidewalks and will have easy access to places to work, play, dine, and shop. That same traveler will also see homes in need of repair, zoning ordinance enforcement issues, sidewalks that need replacing, and aging trees in need of trimming and replacement. The community would like to grow a concentrated effort to help residents find opportunities to reinvest in their neighborhoods.

Neighborhood planning has many benefits and fits in with the placemaking agenda of the township by working toward re-developing the neighborhoods in which future residents will want to live. Clean, affordable, quality housing stock, walkability, and a charm unique to Arcadia are the characteristics residents and future residents would like to see in their neighborhoods. Arcadia Township Historical Museum has a volunteer who is conducting an architectural survey of each house in the urban center and documenting historical details and distinctive assets of the dwellings. By making the neighborhoods an important planning focus, the community can seek investment and funding opportunities, address their unique needs, highlight distinctive assets, strengthen the interactions of the neighbors, and develop the capacity for new leadership within the community.

Building blocks

- 1. Seek funding sources to assist neighborhoods with the maintenance and rehabilitation of existing homes.
- Ensure that future development within the township urban core takes place in a grid-like pattern that promotes walkability and connectivity.
- 3. Encourage sidewalk maintenance and extension, and seek out opportunities to fund improvements.
- Seek opportunities to ensure that the community has many affordable housing options to meet the needs of all age groups.
- 5. Conduct a comprehensive assessment of the infrastructure (roads, electricity, broadband, natural gas, above and below ground utilities, etc.) to answer questions such as, "What infrastructure exists in the Township?", "What are the deficiencies?" and "What opportunities exist to make improvements?"
- 6. Seek models and suggestions of Historic Preservation methods for the neighborhoods.

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People and Places

How many people? How long did they go to school? What do they do? What activities can be supported by the land itself? And where can we go shopping around here, anyway?

Population

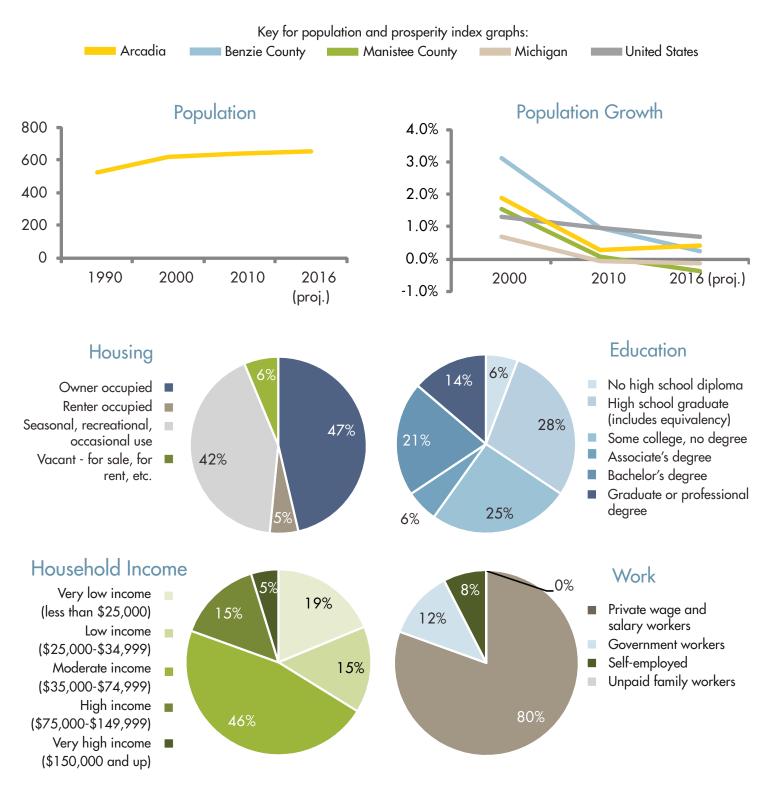
Population is both an indicator and a driver of economic growth. An increase in people creates a larger economic and customer base on which the business environment can draw, and areas of bustling economic activity attract people looking to share in its benefits. After a robust growth spurt that brought Arcadia Township's population from 523 to 621 during the 1990s, it continued a slightly more subdued climb through the last decade to maintain a positive growth rate even as the population of Michigan slid downward. Arcadia is projected to hold on to those gains and add another dozen or so residents through 2016.

Housing

Home is where the heart is, and where all your stuff is, and probably where the people you call family are too. On a community level, it's much the same: housing data may be about buildings, but it tells us much about the actual people we call neighbors. Arcadia's 574 housing units provide the shelter for its 272 households. Astute observers may note that that represents about 2.1 houses per household, and that is correct: in this community, there just about as many houses for seasonal or recreational use (242 homes, or 42% of all housing units) as there are occupied by the people who own them (266 homes, 46%). A detailed discussion follows under "Seasonal Housing." Just 5.2% are renter-occupied, a figure that is in line with other Lakes to Land townships but only 1/6 of the national rate. Arcadia's vacancy rate of 7.1% is the third lowest in the region.

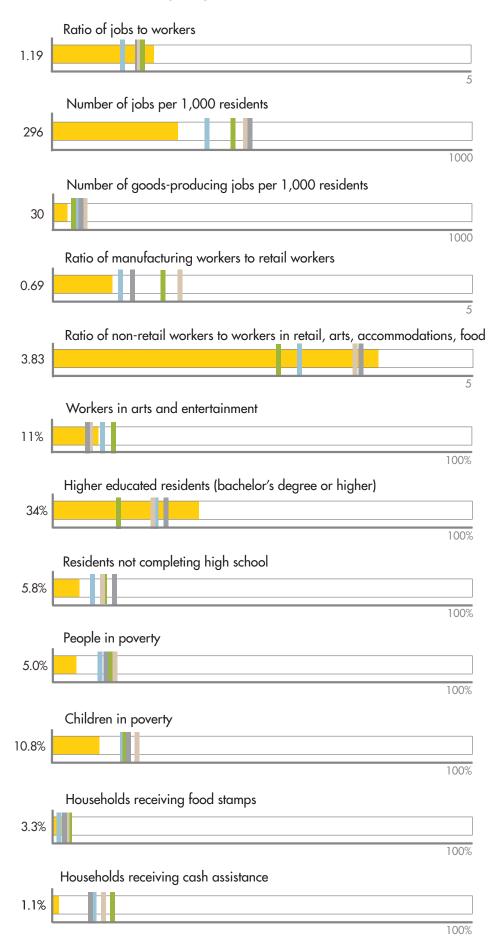
The largest share of Arcadia's housing stock was built before 1939 (157 homes, or 30%). The decades after that saw increases ranging from 16 to 39 homes per year until the end of the century, when a boom of 59 houses in the 1980s and 106 houses in the 1990s dramatically expanded the housing stock. Another 74 houses have been added since the turn of the millennium. By and large, Arcadians own their homes outright: the 35% of housing units with a mortgage is the lowest among all L2L communities. The

Demographic Dashboard



Classifications modified from HUD guidelines, using the state median income of \$48,432.

Prosperity Index



person average household size \$164,600 owner-occupied median home value (not available) median gross rent Education 10% population enrolled in school 94% high school graduate or higher 35% bachelor's degree or higher Commuting 95% workers who commute 76% commuters who drive alone 28.2 minute average commute Employment 189 jobs 159 workers 9.7% unemployment rate 13% civilian veterans Income \$48,269 median household income \$15,556 median earnings for workers \$53,438 male full-time, year-round earnings \$30,000 female full-time, year-round earnings 5.0% population in poverty 10.8% children in poverty **Top Industrial Sectors** 40% accommodation and food services 15% public administration 10% health care and social assistance

Households

1.99

median home value of \$164,600 is one position above the regional median.

Most of the homes (79%) are heated with bottled, tank, or liquid petroleum (propane) gas. Another 12% are heated by wood, and the remaining homes stave off the northern Michigan winter with electricity or fuel oil.

Education

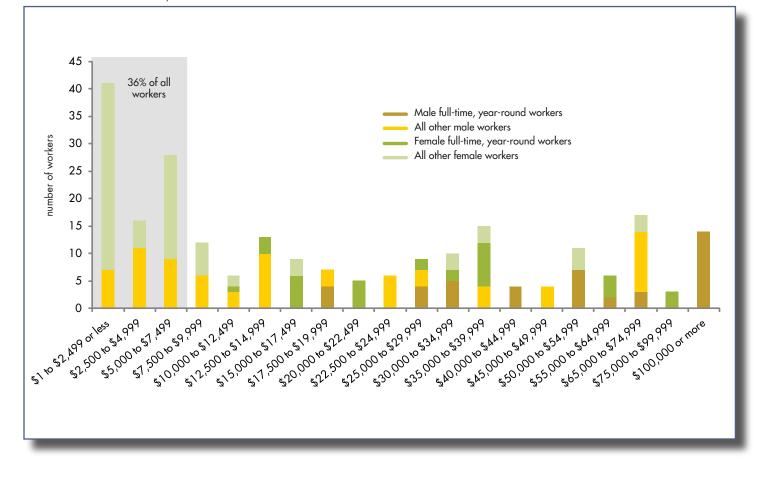
The residents of Arcadia are a welleducated bunch. Over a third of the adults older than 25 have at least a bachelor's degree (34.3%), a higher proportion than in the aggregated populations of Benzie County, Manistee County, the state of Michigan, or the United States. It is also the second highest proportion in the Lakes to Land region. Conversely, just 5.8% of Arcadians have not earned a high school diploma—the third lowest in the region, and lower than all four aggregate benchmarks.

The percentage of Arcadians who are currently enrolled in school is just 10%, which is the second lowest in the region and less than half of state and national percentages. This is a consequence of Arcadia's relatively high median age of 61.4 years. Among Lakes to Land communities, it is second only to Lake Township, and the old age dependency ratio (number of people aged 65+ / number of people aged 15-64) is also the second highest at 78. This means that the number of elderly persons is equal to 78% of the number of persons who are of workforce age. By contrast, this ratio is 22% in Michigan and 21% nationally.

Income

Arcadia is becoming a place of choice for high income earners of the region. Male, full-time, year-round workers have a higher median income in Arcadia than in any other Lakes to Land community at \$53,438. It is a whopping 178% of the median income for their female counterparts, the largest discrepancy in the region. The \$30,000 median annual earnings for female full-time, year-round workers is still in the top third among L2L communities, and overall median annual household income is the fourth highest at \$48,269.





But median earnings for ALL workers, not just full-time, year-round workers, are just \$15,556-the second lowest in the entire region. At that salary, it would take 3.1 earners per household to equal the median income, yet the average household size in Arcadia is the third lowest in the region at 1.99. What gives? Table 4.3 suggests that the answer lies with female workers earning less than \$7,500, a group that makes up fully 25% of the entire workforce (36% when combined with male workers earning less than \$7,500). The relatively high household income suggests that these workers are sharing households with at least one person who has much higher earnings.

The poverty rate is low in Arcadia Township: 5% for all persons and 10% for persons under 18. This is about half the rate of county, state, and national benchmarks, and it is tied with Gilmore and Elberta as the second lowest rate in the region for all persons. Accordingly, public assistance is also low: the percentage of households receiving food stamps is the second lowest in the region at 3.3%, and just 1.1% of households receive cash assistance.

A quick estimate of a community's "net worth" can be obtained by dividing its major assets (checking and savings accounts, stocks, bonds, mutual funds) by its major liabilities (home and car loans). The higher the ratio of assets to liabilities, the better insulated the community will be from quick changes in the economy. In Arcadia and eight other Lakes to Land communities, the ratio is 2.93. This figure is higher than that of Benzie County, Michigan, and the United States (2.58, 2.65, 2.41) but lower than Manistee County and the remaining Lakes to Land communities (range: 2.95-3.23).

4.4: Net Worth

Assets		
	Checking Accounts	\$1,326,339
	Savings Accounts	\$3,056,953
	U.S. Savings Bonds	\$105 <i>,</i> 503
	Stocks, Bonds & Mutual Funds	\$7,981,516
	Total	\$12,470,311
Liabilities		
	Original Mortgage Amount	\$3,548,462
	Vehicle Loan Amount 1	\$703,077
	Total	\$4,251,539
Net Worth		
	Assets / Liabilities	2.93

Occupations

This section discusses the occupations and professions in which the residents of Arcadia Township work, whether or not they conduct that work within the township's boundaries.

Thirty percent of Arcadia's workforce listed their occupational field as "educational services, health care, and social assistance." Overall, this field had the third highest median annual earnings at \$58,875; a breakdown of this figure revealed that median earnings for males in the "health care and social assistance" sector were a startling \$163,333 while median annual earnings for females were just \$39,167.

Construction was the second most popular industry, employing 26 persons or 16% of the workforce, and arts, entertainment, recreation, and accommodation was third with 17 workers (11%). The best-paid occupations overall were the group of professional, scientific, management, administrative, and waste management services, with a median annual income of \$80,417.

Arcadia has the second highest proportion of workers in nonretail fields to those in retail, arts, accommodation, and food services; it has the third lowest percentage of workers in the latter field overall. Although it is not a direct comparison, we can get a sense of the disparity in wages between non-retail workers and those in retail, arts, accommodations, and food service by multiplying the median earnings in each industry by the number of workers in that industry, then dividing the resulting weighted earnings for each category (non-retail and retail, arts, etc.) by the number of workers in it. This average of weighted median earnings, shown in Table 4.4, estimates that non-retail workers in Arcadia earn almost five times as much as workers in retail. arts, accommodation and food service. This ratio is about 2:1 in the case of national, state, and county

benchmarks, which is why it is used as an indicator of prosperity; the specific wages in this area make it a particularly robust one for Arcadia.

Retail and Business Summary

This section discusses the businesses and jobs within Arcadia Township's borders, whether or not the proprietors and employees are also Arcadia residents.

The business summary generated by Esri counts 43 businesses employing 189 people in the township. Although relatively few Arcadian *residents* work in the accommodation and food service field, it is the most common industry group for those who are *employed* in the township. Its 75 employees make up almost 40% of the pool, and its 8 businesses represent the greatest concentration of companies in any field.

The next greatest number of employees work in public administration (15%), followed by health care and social assistance (10%). Construction had the second greatest number of businesses with 7, employing a total of 15 people (8% of all employees); the four businesses dedicated to retail trade followed with 14 employees.

The table in 4.6 is designed by ESRI to provide a snapshot of retail opportunity by presenting the fullest picture possible of both supply and demand. Supply is calculated by combining the Census of Retail Trade, a portfolio of demographic and business databases, and the Census Bureau's Nonemployer Statistics data to estimate total sales to households by businesses within the study area. To estimate demand, ESRI combines annual consumer expenditure surveys from the Bureau of Labor and Statistics with its own proprietary Tapestry Segmentation system (Tab 2), yielding a fairly tailored picture of the purchases likely to be made by the inhabitants of the study area

We can then arrive at the Retail Gap by subtracting the supply from the demand. A negative number, shown in red on the chart, signifies an oversupply or surplus, while the positive numbers shown in green indicate leakage of sales which are presumably being conducted outside the community.

4.5: Non-retail earnings vs. earnings in retail, art, accommodation, food service

Industry	Workers	Median earnings	Weighted median earnings
Non-retail			
Construction	26	\$28,750	\$747,500
Manufacturing	9	\$28,125	\$253,125
Transportation and warehousing, and utilities	9	\$63,125	\$568,125
Professional, scientific, management, administrative waste management services	5	\$80,417	\$402,085
Educational services, and health care and social assistance	48	\$56,875	\$2,730,000
Other services, except public administration	14	\$30,000	\$420,000
Public administration	7	\$7,917	\$55,419
Total	118		\$5,176,254
Average of weighted median earnings		\$43,867	
Retail, art, accommodation, food			
Retail trade	13	\$11,250	\$146,250
Arts, entertainment, recreation, accommodation food services	17	\$7,188	\$122,196
Total	30		\$268,446
Average of weighted median earnings		\$8,948	

Insufficient data for workers in finance/insurance/real estate and wholesale fields resulted in the removal of those 11 workers from this analysis. Source: US Census.

4.6: Retail marketplace summary

		Demend	S.u.s.a.h.		Lealura	
	NAICS	Demand (Retail	Supply (Retail		Leakage / Surplus	
Industry Group	Class.	Potential)	Sales)	Retail Gap	Factor	Businesses
Motor Vehicle & Parts Dealers	441	\$1,168,959	\$620,023	\$548,936	30.7	1
Automobile Dealers	4411	\$940,683	\$0	\$940,683	100.0	0
Other Motor Vehicle Dealers	4412	\$144,133	\$620,023	-\$475,890	-62.3	1
Auto Parts, Accessories & Tire Stores	4413	\$84,143	\$0	\$84,143	100.0	0
Furniture & Home Furnishings Stores	442	\$102,872	\$0	\$102,872	100.0	0
Furniture Stores	4421	\$74,681	\$0	\$74,681	100.0	0
Home Furnishings Stores	4422	\$28,191	\$0	\$28,191	100.0	0
Electronics & Appliance Stores	4431	\$121,717	\$0	\$121,717	100.0	0
Bldg Materials, Garden Equip. & Supply Stores	444	\$222,171	\$0 \$0	\$222,171	100.0	0
Bldg Material & Supplies Dealers	4441	\$167,537	\$0	\$167,537	100.0	0
Lawn & Garden Equip & Supply Stores	4442	\$54,634	\$0	\$54,634	100.0	0
Food & Beverage Stores	445	\$851,263	\$147,840	\$703,423	70.4	1
Grocery Stores	4451	\$719,636	\$O	\$719,636	100.0	0
Specialty Food Stores	4452	\$58,936	\$147,840	-\$88,904	-43.0	1
Beer, Wine & Liquor Stores	4453	\$72,691	\$0	\$72,691	100.0	0
Health & Personal Care Stores	4,464,461	\$215,193	\$0	\$215,193	100.0	0
Gasoline Stations	4,474,471	\$1,055,143	\$2,818,280	-\$1,763,137	-45.5	1
Clothing & Clothing Accessories Stores	448	\$106,704	\$0	\$106,704	100.0	0
Clothing Stores	4481	\$71,992	\$0	\$71,992	100.0	0
Shoe Stores	4482	\$16,670	\$0	\$16,670	100.0	0
Jewelry, Luggage & Leather Goods Stores	4483	\$18,042	\$0	\$18,042	100.0	0
Sporting Goods, Hobby, Book & Music Stores	451	\$75,371	\$0	\$75,371	100.0	0
Sporting Goods/Hobby/Musical Instr Stores	4511	\$46,171	\$0	\$46,171	100.0	0
Book, Periodical & Music Stores	4512	\$29,200	\$0	\$29,200	100.0	0
General Merchandise Stores	452	\$727,435	\$0	\$727,435	100.0	0
Department Stores Excluding Leased Depts.	4521	\$383,490	\$0	\$383,490	100.0	0
Other General Merchandise Stores	4529	\$343,945	\$0	\$343,945	100.0	0
Miscellaneous Store Retailers	453	\$115,040	\$0	\$115,040	100.0	0
Florists	4531	\$13,012	\$0	\$13,012	100.0	0
Office Supplies, Stationery & Gift Stores	4532	\$51,875	\$0	\$51,875	100.0	0
Used Merchandise Stores	4533	\$11,268	\$0	\$11,268	100.0	0
Other Miscellaneous Store Retailers	4539	\$38,885	\$0	\$38,885	100.0	0
Nonstore Retailers	454	\$18,773	\$0	\$18,773	100.0	0
Electronic Shopping & Mail-Order Houses	4541	\$301	\$0	\$301	100.0	0
Vending Machine Operators	4542	\$10,796	\$0	\$10,796	100.0	0
Direct Selling Establishments	4543	\$7,676	\$0	\$7,676	100.0	0
Food Services & Drinking Places	722	\$631,105	\$1,256,525	-\$625,420	-33.1	3
Full-Service Restaurants	7221	\$349,864	\$1,073,141	-\$723,277	-50.8	2
Limited-Service Eating Places	7222	\$219,234	\$0	\$219,234	100.0	0
Special Food Services	7223	\$32,495	\$0	\$32,495	100.0	0
Drinking Places - Alcoholic Beverages	7224	\$29,512	\$183,384	-\$153,872	-72.3	1
	!	, <u> </u>	÷			·

Commuting

It's a real estate truism that the three most important factors considered by buyers are location, location, and location, yet the traditional measure of housing affordability-surely another consideration hovering near the top of the list-makes no allowance at all for location. The Center for Neighborhood Technology set out to redefine "affordability" to more accurately reflect the proportion of a household's income that is committed to housing costs, including those incurred while getting to and from that aforementioned location. CNT describes its Housing and Transportation Affordability Index this way:

"The traditional measure of affordability recommends that housing cost no more than 30 percent of income. Under this view, three out of four (76 percent) US neighborhoods are considered "affordable" to the typical household. However, that benchmark ignores transportation costs, which are typically a household's second largest expenditure. The H+T Index offers an expanded view of affordability, one that combines housing and transportation costs and sets the benchmark at no more than 45 percent of household income. Under this view, the number of affordable neighborhoods drops to 28 percent, resulting in a net loss of 86,000 neighborhoods that Americans can truly afford."

CNT's map has been steadily expanding its coverage since its inception in 2008 and now includes 337 metropolitan areas in the United States. Manistee County has not been analyzed, but Benzie County was considered part of the Traverse City metropolitan area and its neighborhoods are among those that disappear from the affordability map: while the H+T Index shows the average housing cost to be less than 30% of household income for the whole county, the addition of transportation costs to the equation puts the share of household income spent on those two combined items over 45% for all places in the county. For most people, housing is not affordable.

At 28.2 minutes, Arcadians' average commute is longer than any other in the region and also longer than the average commute in Benzie County, Manistee County, Michigan and the United States. Figure 4.7 shows the Arcadia "workshed," or the geographic area within this average commute, and we can see that it covers a large proportion of the two-county area. A long commute is tough. Everyone who has ever had one knows it subjectively, and a growing body of empirical evidence is pointing to its detrimental effects on happiness, health, and wealth: its costs are rarely fully compensated by our salaries, the minutes spent behind the wheel come at the cost of minutes spent on exercise and meal preparation, and people with long commutes are frankly just less happy than those with shorter ones. About 95% of Arcadian workers have some sort of commute.

While the length of a commute may have the greatest effect on the commuter, it's the method of commuting that has the greatest effect on the environment, and here the news is more encouraging: A sizable portion of commuters carpool (12%), and the 8% of Arcadia's commuters who walk represent about three times the rate of walkers in aggregated county, state, and national commuting data. Just 76% of Arcadian workers who commute do so by driving alone, a circumstance which maximizes the output of vehicle emissions per commuter. This is in the bottom half of the Lakes to Land communities and fewer than any of the aggregated populations (nationally, the rate is just under 80%).

Agricultural Influence

Of the 11,745 acres of land that make up Arcadia Township, 2,386 (20%) have an existing land use category of "Agriculture." This land represents 61 of the 1,024 parcels (6%) in the township. Another 1,324 acres (11%) comprising 26 parcels (3%) are "Natural Resource Related." Overall, then, about 31% of the land and 9% of the parcels are devoted to "valueadded" land practices.

The 2010 Census, however, does not capture any agriculture in Arcadia, as none of the 159 persons who make up the township's civilian employed population listed "agriculture, forestry, fishing, hunting, and mining" as his or her industry. The Business Summary generated by ESRI records just one business within the township's borders bearing the North American Industrial Classification System (NAICS) code for "Agriculture, Foresry, Fishing, and Hunting," and it cites a grand total of one employee.

Issues of succession, or passing the farm on to the next generation, while nationally known, also play a significant role in Arcadia. Retiring farmers may still farm their land during their retirement, and thus are

4.7: Arcadia "workshed"



LAKES TO LAND REGIONAL INITIATIVE | P-20

4.8: Arcadia Bluffs Golf Course (left), Sunset Station (right)



unaccounted for in the Census data while they wait for the next generation to take over the business.

Seasonal / Tourism

The entire Lakes to Land region is affected to varying degrees by a seasonal economy. An abundance of parks and recreation activities combines with the temperate summer weather to create a magnetic pull felt by most inhabitants of the state from spring to fall, and then formidable weather joins a lack of critical mass in economic activity to produce an edge of desolation through the winter months. Arcadia Bluffs is a world-class golf course built in 1999 that offers games, dining, and lodging from April through November. Golf Digest named it to both its ranking of the 100 greatest public courses in the United States and to its general ranking of the 100 greatest courses in the country.

There are plenty of people who want to spend much more time in Arcadia than a few rounds of golf, though—maybe even enough to call it home for a season. Housing that is "for seasonal or recreational use" is technically considered "vacant" by the US Census because its rules dictate that a household can only be attached to one primary housing unit, but these homes provide a measure of investment by the seasonal population that cannot be replicated



elsewhere. A high percentage of seasonal/recreational use homes provides concrete evidence of the value of the area for those purposes. It also provides a measure of a portion of the community which will have a somewhat nontraditional relationship with the community at large: seasonal residents may not have kids in the school system or have the ability to attend most government meetings, but they do pay taxes and take a vital interest in goingson. In some ways, knowing the percentage of seasonal/ recreational housing in a community is the most reliable measure of the accommodations the community must make to include its "part-time" population in its decision-making framework. In Arcadia Township, there are nearly as many homes classified as seasonal / recreational use as there are owner-occupied homes (42.2% and 46.3% respectively). This proportion is high even compared with Benzie and Manistee counties' aggregated percentages of 33.1% and 24.9%, and it represents a substantive departure from the state and national benchmarks of 5.8% and 3.5%.



4.9: Building M-22. Photo: Arcadia Area Historical Society

Infrastructure

For planning purposes, infrastructure is comprised of "the physical components of interrelated systems providing commodities and services essential to enable, sustain, or enhance societal living conditions."

These components, which come together to form the underlying framework that supports our buildings, movements, and activities, usually include our power supply, water supply, sewerage, transportation avenues, and telecommunications. Successful infrastructure is often "experientially invisible," drawing as little attention in its optimum condition as a smooth road or a running faucet until it's not, and then it likely has the potential to halt life as we know it until the toilet flushes again or the lights come back on.

It seems we all know the feeling. The American Society of Civil Engineers' 2013 "Report Card for America's Infrastructure" gave us a D+ (takeaway headline: "Slightly better roads and railways, but don't live near a dam"). The Michigan chapter of the ASCE surveyed our state's aviation, dams, drinking water, energy, navigation, roads, bridges, stormwater, public transit, and wastewater and collection systems in 2009 and gave us a D. Clearly, there is room for improvement all over.

But it's expensive. The ASCE report came with a national price tag of \$3.6 trillion in investment before 2020. If this were evenly distributed among the 50 states, it would mean about \$72 billion per state—almost half again as much as Michigan's entire annual budget. The combination of the essential nature of infrastructure with its steep price tag highlights a need for creative problem-solving in this area precisely the aim of the Lakes to Land Regional Initiative.

LAKES TO LAND REGIONAL INITIATIVE | P-24

Roads

The State of Michigan's Public Act 51, which governs distribution of fuel taxes, requires each local road agency and the Michigan Department of Transportation to report on the condition, mileage, and disbursements for the road and bridge system under its jurisdiction. The Pavement Surface Evaluation and Rating (PASER) system used to report on the condition is a visual survey conducted by transportation professionals that rates the road surface from 1 to 10; roads rated 5 and above are considered to be at least "Fair."

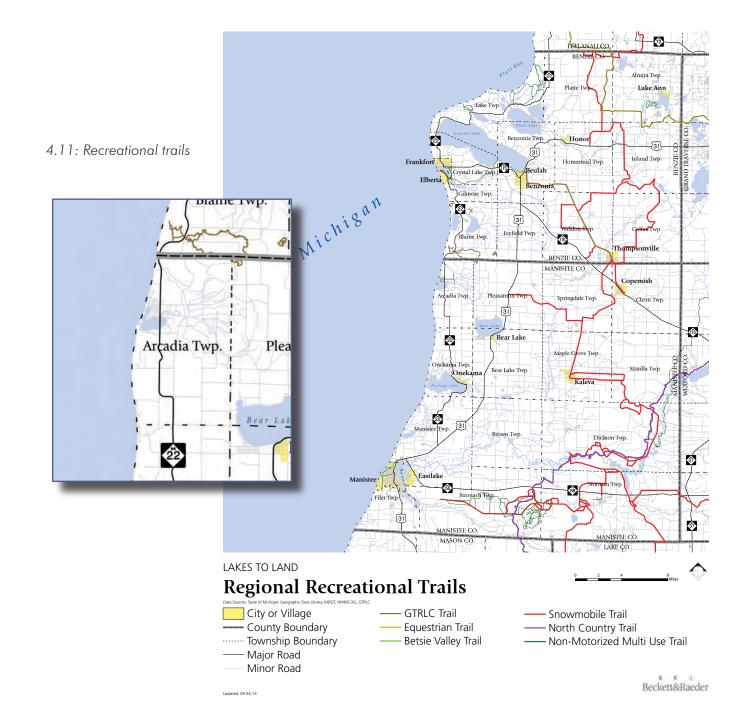
Figure 4.10 depicts all of the roads with PASER ratings of "poor" (1-4) in Benzie and Manistee Counties. The Arcadia Township close-up in the inset reveals poor conditions on Glovers Lake Road, 13 Mile Road, and along the road between the township's eastern border and Glovers Lake Road which is known by turns as Lumley, Ware, Frederick, and Gilbert Road.



Trails and regional connections

As can be seen in Figure 4.11, there are not presently any local or regional non-motorized trails in Arcadia Township. It's an absence noted by the citizens, who made the creation of biking and hiking trails their fourth highest priority at the visioning session, and the planning commissioners who formulated that priority into a Cornerstone. The preferred methods of accomplishment as articulated in the Building Blocks include surveying existing sidewalk conditions,

conducting a street survey to assess concurrent trail system needs, launching a wayfinding campaign, and promoting the Pleasant Valley Community Center as a trail hub. Neighboring Bear Lake Township's Building Blocks include a suggestion for partnership with Onekama, Pleasanton, and Arcadia Townships to form the beginning of a sub-regional network.



Power supply

Electricity for Arcadia Township homes and businesses is available from Consumers Energy Company (Jackson). Superior Energy provides natural gas services to many Township residents. While not available throughout the Township, the primarily populated areas are served and future connections are possible. Service from "alternative energy suppliers" is also available through Michigan's Electric Customer Choice program.

Public Act 295 of 2008 requires Michigan electric providers' retail supply portfolio to include at least 10% renewable energy by 2015. The Michigan Public Service Commission's 2012 report estimates renewables to make up 4.7% of the energy supply that year. Figure 4.12 shows the US Environmental Protection Agency's analysis of renewable energy potential in the Lakes to Land region.

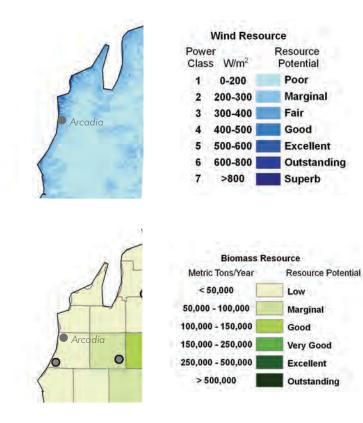
Water and sewer

Arcadia Township is not served by public water and sanitary sewer systems; water supply and sewage disposal are dependent upon well and septic systems. This isn't necessarily an issue in the greater township, where parcels are large enough for and soils are compatible with well and septic systems. However, challenges are encountered in Arcadia's small village

setting, which has a density of 4 to 6 homes per acre on lots occupying 6,000 to 9,000 square feet. Here, specific dimensional requirements related to siting well and septic systems, such as isolation distances from adjacent systems and the built environment, may take up so much of a parcel that the lot is rendered unbuildable. Some commercial lots are also so small that after meeting parking requirements and siting well and septic systems, there may be little room for the business. Future growth of the Township in the commercial and village areas may be dependent on further investigation into how water and sanitary sewage issues are resolved.



4.12: Renewable energy potential

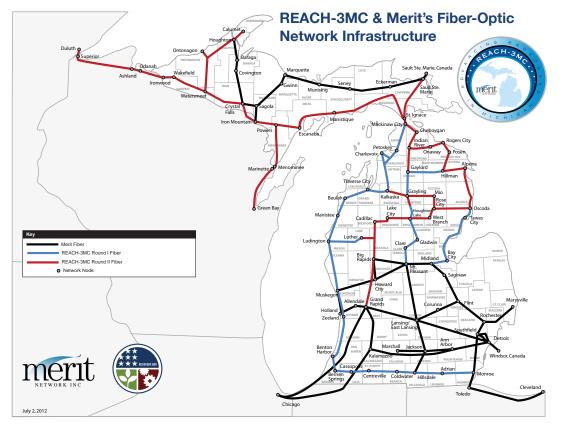






EPA Tracked Sites

- O Abandoned Mine Land
- Brownfield
- RCRA
- O Federal Superfund
- Non-Federal Superfund



4.13: Proposed Merit fiber-optic network

Telecommunications

Connect Michigan, our arm of the national agency dedicated to bringing broadband access to every citizen, calculates that such success has already been achieved in 97% of households in Benzie and Manistee Counties. Figure 4.13 further shows that the remaining unserved areas are mostly in the counties' inland areas rather than in the Lakes to Land communities.

Still, improved broadband access came up in several of the visioning sessions, including Arcadia's. There is certainly room for improvement, particularly in terms of increased speed, provider choice, and types of platforms available. In January 2010, Merit Network was awarded American Recovery and Reinvestment Act funds to launch REACH-3MC (Rural, Education, Anchor, Community, and Healthcare—Michigan Middle Mile Collaborative), a statewide fiber-optic network for "community anchor institutions" such as schools and libraries. The completion of the line between Manistee and Beulah, serving the Lakes to Land region, was announced on December 28, 2012.

What does this mean? Besides extending leading-edge direct service to organizations that serve the public, the REACH-3MC network uses an open access model that welcomes existing and new internet service providers to join. By constructing the "middle mile" between providers and users, the REACH-3MC cable removes a significant barrier to rural broadband by absorbing up to 80% of an internet service provider's startup costs.

4.14: Broadband service inventory in Benzie and Manistee Counties

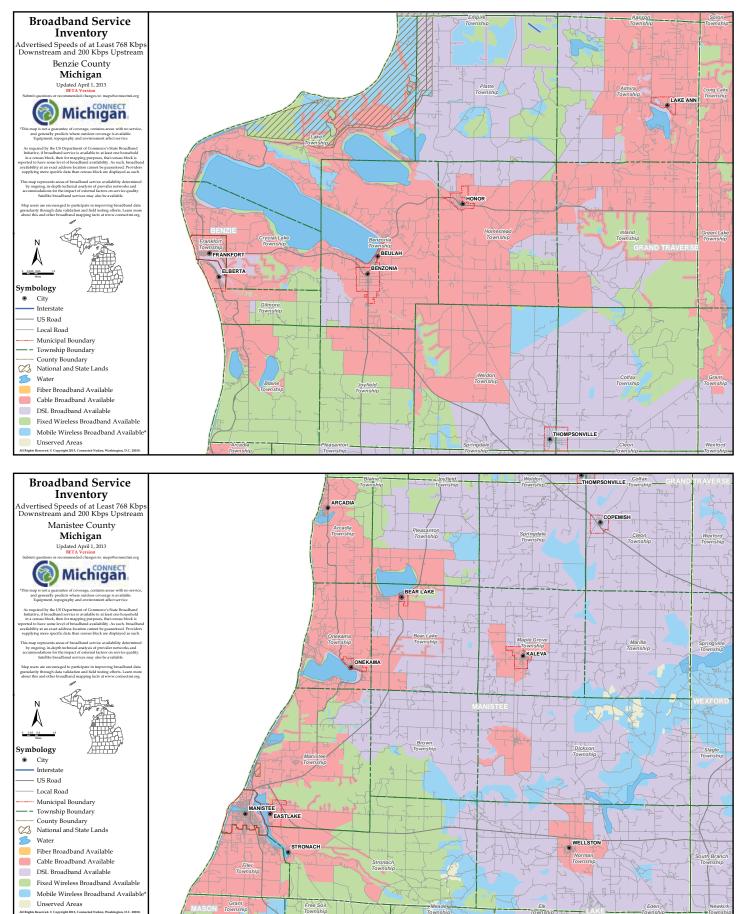




Photo: Google Earth

Land

Arcadia Township has some of the most distinctive topography in the region—and, probably, the world.

The fiery curve of steep slopes toward the top of Figure 4.16 depict the outer edges of a glacier's gouge. Its great, icy runoff tumbled down the ridges to land in wooded wetlands lining the back of the newly-formed basin, strands sliding down paths of least resistance on their journey toward the freshly-carved Lake Michigan bay.

The water level receded, exposing the low-lying bowl into which the lake and village that share Arcadia's name are nestled. Sediment deposited by the creeks on their way to the open water met sand driven landward by the prevailing westerly winds, separating Lake Michigan from the inland waters and sending them seeping northward along the ridge. Michigan's famous pine forest began to take root.

It would be to that forest that the next wave of earth-shapers looked most keenly. By the time Henry Starke arrived to set up his lumber mills, the trapped pool of water had been christened Bar Lake; after a couple of decades, Starke dredged the channel that transformed the lake at Arcadia into a safe harbor for ships and vessels. The creeks were given names like Lucker, Van Bushkirk, Tondu, Bowens, and Schimke as they and their cargo of trout traveled by, landing in the wooded wetlands at the base of the inland slopes and coming together to finish their journey as one. Roads and rails were added to the repertoire of surface cover. Society had been firmly imprinted on the land—"land use" had superseded "topography."

By the early 20th century, the land began to make itself heard again. The trees waned, taking the fortunes and populations they had sparked with them. Fires extinguished nearly all the manufacturing plants, and drought destroyed nearly all the edible plants. The relentless Lake Michigan waves deposited sand back into the harbor faster than either citizens or industry could afford to remove it.

The population of Arcadia today is about two-thirds what it was at the close of the community's industrial age. Nearly half of the land area is connected directly to the people, either as residential parcels or sites of the leisure activities so prized across the region. Another 40% is respected on its own merits: forest, agriculture, natural resources.

Land Dashboard

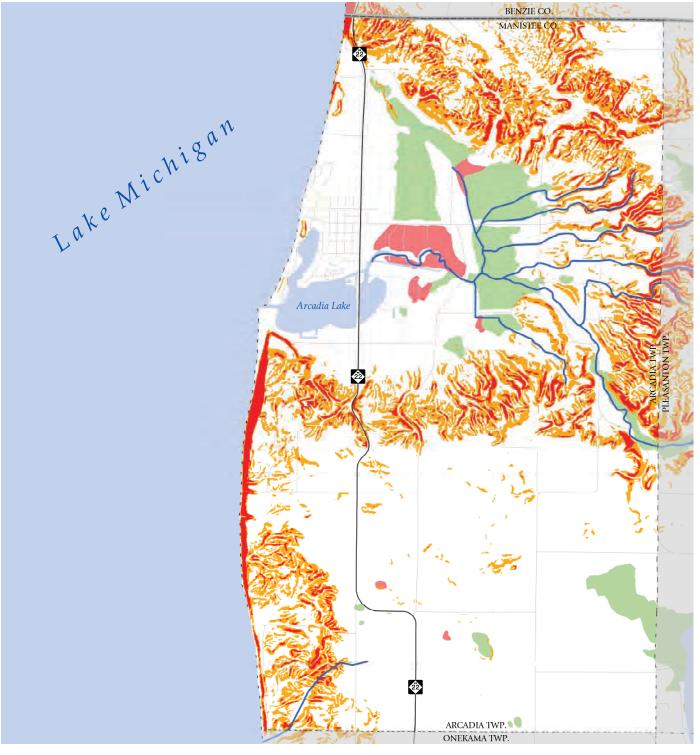
Percentages indicate proportion of total land area except where noted

TOPOGRAPHY						
Elevation	:	Slopes		Critical dunes		
	0-1 degrees:	3,124 acres	27%			
Low: 575 feet above sea level	1.1-5 degrees:	3,654 acres	31%			
High: 1,025 feet above sea level	5.1-9 degrees:	1,839 acres	16%	0 acres		
Range: 450 feet	9.1-16 degrees:	1,828 acres	16%			
	16.1-80 degrees:	605 acres	5%			

		WATER
Lakes	Rivers	Wetlands
248.3 acres 2%	32 miles 0.3% Trout Streams: 14.3 miles 44% of river length	Emergent (characterized by erect, rooted aquatic plants with green/soft stems, excluding mosses and lichens): 169 acres 1.4% Lowlands, Shrub, Wooded (characterized by low elevation and woody vegetation): 807 acres 7%

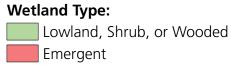
		PUBLIC LAND USE	E	
Roads	Regional Trails	Conserved Land	State Land	Federal Land
53.8 miles 0.5%	0.66 miles 0.01%	GTRLC: 832 acres 7%	Commercial Forest Act: 84 acres 0.7%	0 acres

4.16: Natural Features map



LAKES TO LAND Arcadia Township Natural Features

- Data Sources: State of Michigan Geographic Data Library, MDNR
 ------ County Boundary
- ----- Township Boundary
- ----- Major Roads
- —— Minor Roads



Trout Stream

Slope Degree:

0.5



Land use

The land use section of this master plan provides an analysis of existing land use conditions and a proposed future land use development scenario. It contains two distinct maps: the existing land use map and future land use map.

The existing land use map depicts how the property within the jurisdiction is currently developed. It shows how the land is actually used, regardless of the current zoning, lack of zoning, or future land use map designation—it is what you see happening on the property.

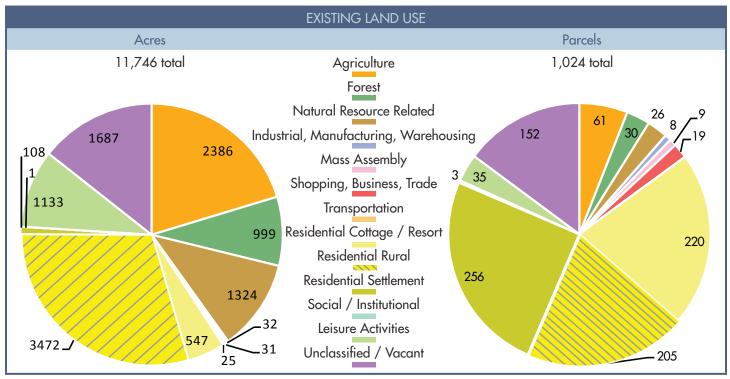
The future land use map of a master plan is a visual representation of a community's decisions about the type and intensity of development for every area of the municipality. These decisions, represented by the community's land use categories, are based on a variety of factors and are

guided by the goals developed earlier in the master planning process-the Cornerstones and Building Blocks presented earlier in this plan. Although the future land use map is a policy document rather than a regulatory document, meaning that it is not legally binding once adopted, it is used to guide the creation of the zoning ordinance and the zoning map, and it supports land use decisions about variances, new development, and sub-area planning. That makes it perhaps the most important part of your master plan, as it defines how community land uses should be organized into the future.

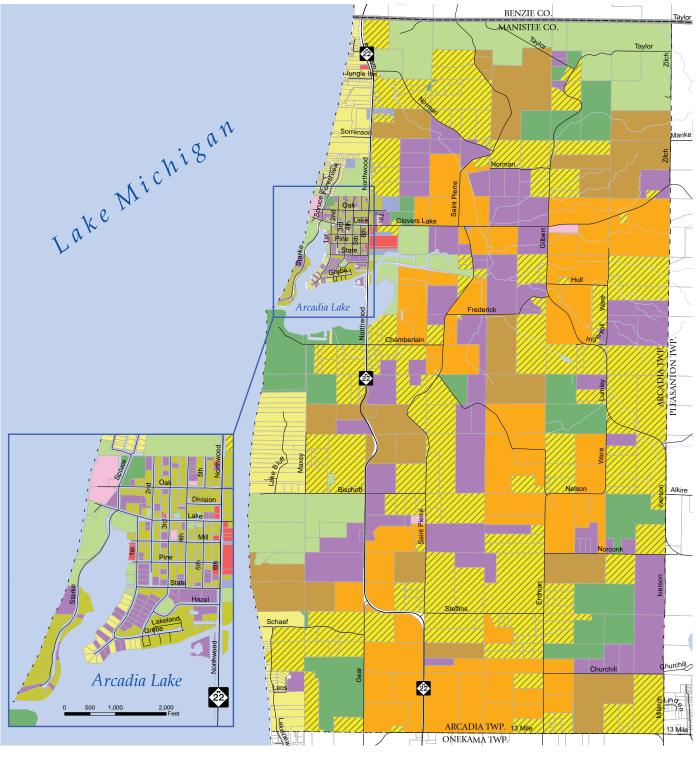
A part of the development of the future land use map is a discussion of the major land use related issues facing the community, how they interrelate with the Cornerstones and Building Blocks, and strategies that may be undertaken to achieve the desired future land use. But at the heart of planning for future land use is a picture of how the physical development of the community will take shape. Simply put, this section describes how, physically, the community will look in 15 to 20 years.

Factors considered when preparing the future land use map include:

- 1. Community Character. How will the land uses promote that character?
- Adaptability of the Land. What physical characteristics (wetlands, ridges, lakes, etc.) need to be considered when planning for future development? How do the land uses for those areas reflect the uniqueness of the land?
- Community Needs. What additional housing, economic development, infrastructure, or other needs should the community



4.17: Existing land use chart and map



LAKES TO LAND

Arcadia Township Existing Land Use

Data Sources: State of Michigan Geographic Data Library, Benzie and Mar Agriculture Forest Industrial Leisure Activities Mass Assembly Natural Resources



Parcel Boundary ----- County Boundary ------ Township Boundary ----- Road

Beckett&Raeder

consider planning for?

- 4. Services. How are we ensuring that existing infrastructure is used efficiently, and that new infrastructure is planned for areas where new development is anticipated?
- 5. Existing and New Development. How will new development in the community relate to existing development?

Existing and future land use maps are both different from a zoning map, which is the regulatory document depicting the legal constraints and requirements placed on each parcel of land. The parcels are classified into zoning districts, which are based on the future land use map. When owners want to develop or use their property in ways that do not conform to the zoning map, the planning commission uses the future land use map and the master plan to consider whether the proposed development conforms to existing regulations and policy.

Three land use concerns in Arcadia, and the subsequent strategies to deal with those concerns, include the following:

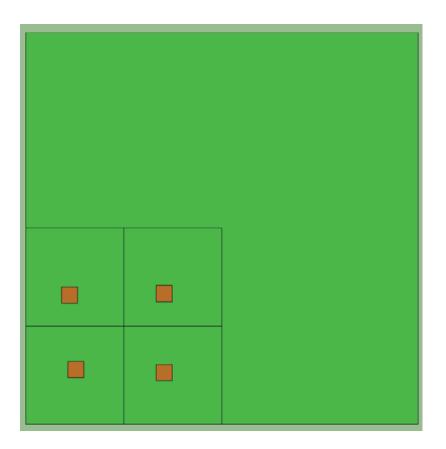
- How to grow the light industrial corridor along M-22 and Lake Street so that Arcadia is creating the type of place its citizens envision;
- How to address specific residential sub-areas of the community in a thoughtful, logical, and meaningful manner in order to achieve regulatory mechanisms that shape each unique area;
- 3. How to preserve scenic rural character.

Rural scenic character preservation

Scenic rural character in Arcadia evokes the feelings of an understanding of the unique characteristics of the community and the people who live here. In a nut-shell, it is what makes Arcadia Arcadia. So when asked, "What is scenic rural character?" a respondent might answer, "It's the orchards lining M-22," or, "It's the views of Arcadia Marsh as it flows through Lake Arcadia into Lake Michigan," or, "It's the folks who farm their land and sell it at their fruit and vegetable stands," or, "It's the dirt roads with trees gently swaying in the warm summer wind." While the notion of scenic rural character is somewhat elusive, the Township wants to ensure that keeping the rural scenic character is tangible, definable, and measurable. While an agricultural economy is one of the primary methods of preserving rural character, it is not the only method. In Arcadia, agriculture speaks to its history but not necessarily to the future, especially large-scale agricultural operations that require large tracts of land. More practically, agriculture in Arcadia will take the form of smaller fruit operations with value-added components. With that said, the increasing residential development moving to Arcadia for the rural scenic character will need to balance the challenges of rural living with their expectations. This master plan calls for balancing rural scenic character preservation with increasing development pressures. In many cases, it will not be"what" is developed but "how" it is developed that will dictate the success or failure to preserve the rural scenic character. Producing a Rural Scenic Character

Preservation Plan is one first step in the right direction to ensuring that the "how" is done in a manner reflective of the values of the community. In regard to land use development, an eye toward efficient use of land where open space is valued, large lots do not become fragmented, and clustering of development towards higher density areas is a preferable approach to achieving the goals of rural scenic character preservation and development.

Very specifically, residential development patterns need to reflect conservation based design methods. One such method is to move away from minimum lot size standards towards density-based zoning. Minimum lot size standards means that you are required to have a minimum amount of land for development of a single dwelling within a zoning district. (i.e. Minimum lot size = 10 acres, meaning 1 home on a 10 acre lot). Whereas in density based zoning, the number of single-family homes is based on a formula that considers the entire land area. (i.e. 1 home per 10 acres, meaning the lot size doesn't matter as long as it is one home per 10 acres). Density based zoning relies upon a total permissible number of dwelling units that may be built upon any given parcel of land. For example, a 40-acre parcel with a density of 1 dwelling unit per 10 acres would allow 4 dwelling units to be built on the 40 acre parcel. Notice that there isn't a minimum lot size required. As long as there is room for septic and well, the lots could be as small as 1.5 or 2 acres, but this is left to the discretion of the property owner and the limitation of existing infrastructure.



4.18: Densitybased zoning

Top: A 40-acre parcel with 1 home per 10 acres under standard zoning

Bottom: A 40-acre parcel with 1 home per 10 acres under density-based zoning The dwelling lots would only occupy 25% or less of the total land area. This scenario results in greater density with even greater open space preservation for agricultural or recreational purposes than under the traditional minimum lot size scenario.

Sliding scale zoning (establishes a schedule that dictates the number of lots on a parcel but doesn't necessarily dictate lot size), clustering development (simply grouping of the dwelling lots in the most developmentally desirable portion of the parcel) and the use of density bonuses (additional lots are allowed if certain stipulations or conditions are met) are all tools that the community could use in its zoning ordinance framework to yield the benefits of density based zoning.

The ultimate goal is to increase the ability to preserve rural scenic character while still accommodating residential development pressures and support agricultural practices. This master plan supports creative and innovative methods to achieve such a balance.

The benefits of density-based zoning are:

- The landowner is able to develop portions of the land, receive monetary compensation, and also be sympathetic to the natural assets found on the property. Portions of the land may be preserved in permanent conservation easements allowing farming, timber, or passive recreation.
- Infrastructure (road and utility) cost is significantly decreased due to clustering of homes in a single area.

- Provides for access management by providing shared access, which limits number of driveways along a roadway.
- Cost of Community Services (CSS) is greater for residential land uses vs. agricultural land uses
- 5. High residential density in rural areas requires jobs and services which are often not present.
- Clustering of homes allows for use of community well and septic systems if desired for cost savings.

Growing Economic Development Opportunities Along M-22

The area reserved for light industrial development along M-22 is both home to residents and a stopping point for travelers passing through, providing auto related services, lodging, retail, and recreation. This growing corridor is an important piece of Arcadia's development, and it has the potential to either draw people in or to detract from all that Arcadia has to offer. How this area looks and functions as an economic generator and opportunity is very important. It has always been the goal to develop the corridor as a place where individuals can work and live, often on the same parcel, providing economic opportunities for residents of the Township. In order to develop this growing corridor, special attention must be given to the design concept (what we want it to look like), access to M-22, parking demands, architecture, character, and streetscape amenities. In addition, tying each piece of the corridor into an integrated whole is important to ensure compatibility with the historic business district, neighborhoods, and the natural assets of the community. Street-based

frontage standards, design guidelines and use standards are components that should be created to assist in developing the M-22 corridor.

There are some non-conforming uses within the area that have historically been successful. It is the intent of this master plan to continue to allow those uses while encouraging them to meet leading practice standards for the development of the township as a whole. The community and this master plan support the non-conforming uses and encourage, within the scope of the zoning ordinance, their continued prosperity. While warehousing or storage is a prevalent use in the area, this master plan does not support warehousing and storage within the 400' feet from the centerline of M-22 east and 400' north and south from the centerline of Glovers Lake Road.

This master plan envisions the commercial area located 400' from the centerline of M-22 as an area reserved for light industrial uses that are well buffered and isolated from residential uses. In fact, these light industrial uses are not intended to be seen from M-22 and shared access drives (including an interior roadway) are proposed to ensure minimal curb cuts to M-22 while providing access to interior lots. Signage and other advertising aspects will be kept to a minimum with limited lighting and size requirements. This area is not only intended to be home to the many specialized trades businesses that exist in Arcadia but to also provide an incubator for future endeavors.

Because walkability is so important in the township, it is critical that the area between the buildings and moving lanes of M-22 be used effectively. Therefore, the design of the public and private frontages must be thought of as a single, cohesive physical element. This space is made up of two zones: the private and public frontage. Visually these two zones must function together and be seen as one. Pedestrians walking throughout the township must feel buffered from the traffic of M-22 in order for the goal of walkability to be achieved and the rural scenic character preserved, while at the same time, commercial development must be encouraged.

The following suggestions are given to assist in buffering the impact of traffic for pedestrians who are walking and biking along the public portion of the corridor:

- Provide a planning strip between the sidewalk and the roadright-of-way that is generous and green, lined with street trees, streetlights, benches, and wayfinding signage;
- Provide curbside parking, if possible;
- Provide a public sidewalk of sufficient width for two people to pass each other comfortably (i.e. five to six feet);
- Provide bicycle lanes and informational kiosks.

The following suggestions are given to assist buffering the impact of traffic for pedestrians who are walking and biking along the privately owned portion of the corridor:

- Provide front stoops, canopies, and/or porches;
- Provide front yards;
- Provide frontage plants and trees;

What Arcadia Township DOES want in the development of the M-22 corridor:

- Retail that supports a local and regional framework.
- Commercial development that first occurs on sites in the geographical center of the community, nearest the largest crossroad locations and population centers (nodal development), such as Glovers Lake Road and M-22.
- Clustered development which allows multiple uses on one piece of property but is located in the rear of the property utilizing a shared access point, includes landscaping to buffer the use and/or enhance the corridor, has rear parking, incorporates walkability in the site design, and has the appropriate amount of parking spaces without developing a sea of unused impervious asphalt.
- Single use development that is located in the rear of the property, utilizes any shared access points of neighboring uses, includes landscaping to buffer the use and/or enhance the corridor, has rear parking, and incorporates walkability in the site design.
- Warehousing and storage to be at least 400' from the centerline of M-22 and north and south of Glovers Lake Road.
- Ground-mounted, non-lit signage with shared users displayed.
- Development that is in keeping with the historic and maritime character of the Township.
- Consideration of the look of the corridor and how the functionality of the public and private space affects non-motorized transportation uses and people's use of the space. Installation of quality landscaping, streetscape amenities including lights, benches, sidewalks, planters, etc.

What Arcadia Township does NOT want in the development of the M-22 corridor:

- Free-standing stores surrounded by asphalt parking lots with many driveways, high intensity illumination of lights, and limited landscaping;
- Signs that are inappropriate as a result of their size and character;
- Buildings that are not visually interesting nor in keeping with the character of the community;
- Uses that may degrade the natural environment, including Arcadia Marsh;
- Roadways that are edged with no, or too narrow, sidewalks and/or pathways, have little or no pedestrian amenities, and are not designed for multi-modal transportation methods (bikes, walking, cars);
- Public areas of the corridor devoid of streetscape amenities such as benches, lights, landscaping;
- Intersections with multi-phased signals that may have two or even three left-turn pockets, widening the crossing distance even more at busy intersections;
- A long, undifferentiated corridor dominated by retail uses and commercial activities that detracts from the rural scenic character of the community and does not encourage the placemaking strategy of this master plan;
- General ugliness as the natural vegetation is replaced with little to no landscaping and the built infrastructure takes on a harsh character that has no permeability.

4.19: Deed restrictions vs. zoning

	Arcadia Zoning Ordinance	Point Arcadia Subdivision Restrictive Deed	Point Subdivision Restrictive Deed	Camp Arcadia L.L.C. Restrictive Deed
Use	Single Family Residential, Two Family Residential, Marinas, Family Day Care, Adult Foster Care, Places of Worship/ Assembly, Educational Establishments	Single Family Residential	Single Family Residential	Single Family Residential, Camp Related
Setbacks	Resort Residential, Star- Key Point Subdivision, Camp Arcadia: Front: 25' Side: 10' Rear: 25' Waterfront: 100' Point Arcadia, Point Arcadia Subdivision Front: 25' Side: 10' Rear: 25' Waterfront: 50'	Front: 45' Side: 10' Rear /Waterfront: 100', except a few lots 65' & 75'	Front: No requirement Side: 5' Rear: No requirement	Front: 25' Side: 10% of lot width Rear: 25'
Minimum Lot Size	Resort Residential: 20,000 sq. ft. Point Arcadia: 12,000 sq. ft.	No requirement	No requirement	No requirement
Other	 Fences are allowed Accessory buildings are allowed Additional uses are allowed 	 No fences No out buildings Must submit a site plan to corporation 	 Accessory structures are allowed but may not be used for housing or residential purposes. Easements of feet in width from the property line on the roadside and side property line exist for various infrastructure. 	 No detached garages, doors must not face street No tree clearing without approval Must complete work in 6 months

- Provide low walls, fences, or hedges at the back of the sidewalk;
- Provide grade elevation changes at frontage.

The M-22 corridor will continue to have a scenic rural character as development will occur in the rear of the lots, ample vegetative buffering will block or soften the view of the development, uses will be clustered to leave open space which includes space for non-motorized transportation, and visual clutter will be kept at a minimum. Uses that front M-22 will have parking in the rear, integrated sidewalks and paths, landscaping, and other design features.

Sub-area planning

The master plan recognizes the unique and historical aspects of Point Arcadia, Star-Key Point, Camp Arcadia and the historic Arcadia neighborhoods. Each sub-area has its own unique regulatory challenges based on the its distinct identity. Each area was built at a different point in history and for a different purpose.

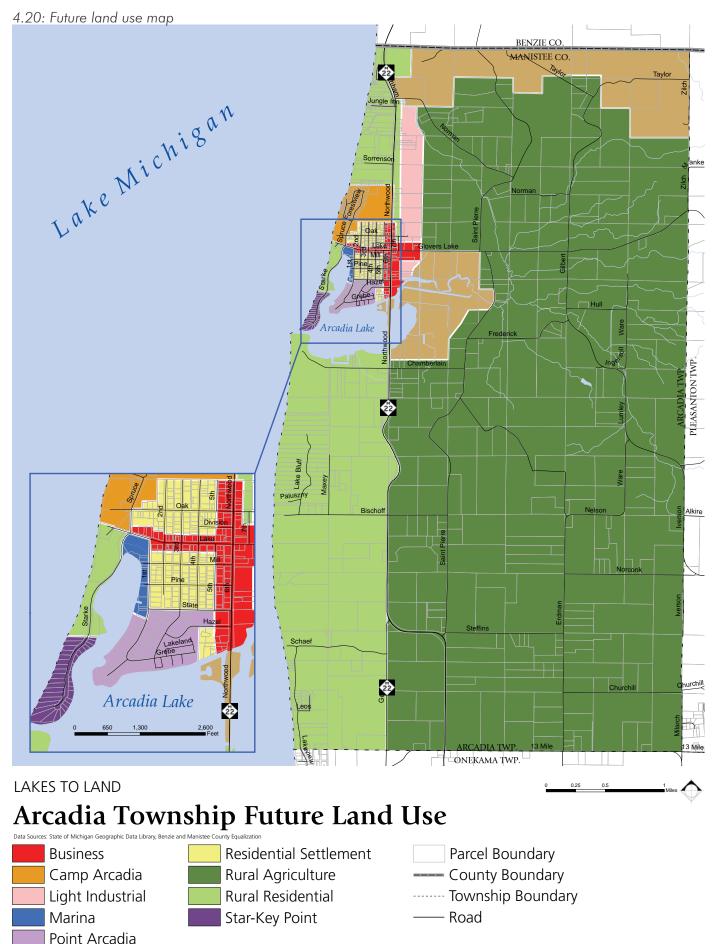
This master plan calls for the establishment of four new Future Land Use categories to address each area's special, unique needs. With an understanding of the limitations of these areas to meet current zoning requirements, the township desires to facilitate the historical patterns of land use and development despite nonconformity with existing zoning rules. This goal may be achieved through flexible zoning regulations, applicable only to these areas, or a part of the area, predicated on sections 502 and 503 of the Michigan Zoning Enabling Act (special land use, and planned use development) and aligned with existing conditions found within each sub-area.

Camp Arcadia is a camp with an associated single-family residential development. Due to the age of the camp, it has non-conforming uses and dimensional characteristics; however, the development pattern of the Camp is in keeping with typical camp environments and is supported by this master plan. Currently, meeting current zoning requirements proves very difficult, as dimensional and use requirements of the zoning ordinance are difficult to meet or not applicable to the development of a "camp." For the Camp Arcadia area, a special Sub-Area Plan would allow for investigation into crafting a framework for approval of various principal and accessory uses as well as dimensional requirements under the umbrella of a broad-based special land use permit. Coupled with the flexibility inherent in a planned unit type mechanism, the township is looking to create a comprehensive set of land use designations that allows for developmental flexibilities within the defined perimeter of the subject areas.

Point Arcadia and Star-Key Point are residential subdivisions that currently have use and dimensional requirements written within their deed and covenants that meet or exceed the current Zoning Ordinance requirements. Both areas are unique in that they front Lake Michigan and Lake Arcadia. The Star-Key subdivision is notable in that the subdivision fronts two bodies of water. Thus, space is at a premium, making home improvements and/or additions difficult. Currently, Star-Key Point Road is a dirt one-track path located within the boundaries of the subdivision platted road. Multiple uses have, over time, encroached into the platted road. The entire area is in need of a survey to determine exact locations of property lines and roads. Point Arcadia is the township's typical suburban, larger-lot residential subdivision located next to the historic neighborhoods of Arcadia. Well and septic may be located within this area more easily than in other places near the Village core. The subdivision is not well integrated into the historic neighborhoods of Arcadia, and the development of methods to create a seamless transition from one area to another is important to creating cohesive neighborhoods.

Part of the Sub-Area Plan is an analysis of the deed restrictions/ covenants and by-laws. In most cases, the deed restrictions/covenants are more restrictive on land uses and dimensional requirements than the Arcadia Township Zoning Ordinance. A deed restriction or covenant is a document that details what the property owner can and cannot do on the property. The covenant "runs with the land," meaning that current and future owners of the property are subject to the covenant requirements. Articles and by-laws are homeowners' association documents that dictate a number of mandatory obligations and restrictions which are only imposed upon those members who belong to the association. Not all people who live in a subdivision are members of the association, and those who aren't do not have to abide by the articles and by-laws of the association that is in place for their development. All individuals who own land in

LAKES TO LAND REGIONAL INITIATIVE | P-42



Updated: 08-13-14

Preserve

the subdivision must abide by the restrictive deed and covenants.

The community is working to maintain the historic character of the existing neighborhoods. Future development of vacant parcels will have a grid street pattern that connects to the existing street network. Other infrastructure improvements include building, maintaining, and/or reopening alleys. In order to encourage re-investment, the township should consider aligning the dimensional requirements of the zoning ordinance to the actual dimensions of the existing neighborhood to ensure that what is found today may be replicated in future development and redevelopment. The township recognizes that dimensions of many existing lots do not easily, if at all, accommodate well and septic systems per the State health code. Rather than making them non-conforming, they can be regulated in a manner that will allow future development on vacant parcels and redevelopment of existing lots, subject to the State of Michigan Health Department approvals and with minimal setback standards.

Future land use categories

There are 10 categories, also referred to as "classifications" or "designations," contained on the Future Land Use map. Seven of the categories are residential classifications, and three are commercial. The intent of the future land use strategy is to plan for future land use density and intensity that fits the historical patterns of existing development while also considering the community's natural resources. In addition, the future land use strategy calls for understanding not only existing land use patterns but also the current dimensional and design characteristics. The township can use this information to build future regulatory mechanisms that will advance development expectations to make it easier to develop and re-develop. Because Arcadia has a number of unique neighborhoods and commercial areas that draw on different characteristics and were originally developed in different ways, at different times, and based upon different standards, this master plan calls for creating future land use categories that identify and support those unique characteristics and circumstances with an eye towards cohesiveness, connectivity and character development. A "one size fits all" regulatory approach was not found to be appropriate. Unique, distinct but definitely Arcadian is how the future land use plan approaches the development of the different subareas of the township.

The following future land use categories by land use type are:

RESIDENTIAL

Residential Settlement Rural Residential Rural Agriculture Point Arcadia Star-Key Point Camp Arcadia

ENVIRONMENTALLY SENSITIVE

Preserve

ECONOMIC DEVELOPMENT

Light Industrial Marina Business

Residential Settlement

This land use category describes the historic neighborhoods of Arcadia and is designed to promote their continuation. The homes represent traditional nineteenth-century architecture. Homes are arranged close to the street with rear garages accessed by an alley. Arranged in a grid configuration, the streets are wide enough for on-street parking but close enough to maintain an intimate neighborhood character. Trees and sidewalks line the streets, alleys provide rear entry to garages located in the backyard, and front porches beckon neighbors to sit and talk. A church may be found in the middle of the neighborhood along with neighborhood parks. Within walking distance to businesses, civic, and recreational amenities, the Residential Settlement area is the premier place to live for individuals looking for a more urban environment within view of Lake Michigan and other natural resource amenities.

Rural Residential

This area of the township contains single- and two-family homes, for year-round and seasonal use, located on large lots. Some lots are used for farming and/or timber management, and many are along Lake Michigan. This area also encompasses existing smaller residential lots located along Lake Michigan shoreline. It is the intent of this designation to continue these uses while encouraging slightly larger lots in order to maintain well and septic integrity, private road standards to ensure emergency service access, greater protection of the Lake Michigan shoreline including views, and rural and scenic character preservation. Some agricultural commercial endeavors are allowed. It is also the intent of this designation to continue to support and promote agricultural opportunities. Other uses customarily found within a rural area are allowed, in keeping with the scenic rural preservation of the township. Single-family residential development will continue, attracting seasonal and permanent residents. Density based zoning opportunities are available for single family residential development.

Rural Agriculture

The Rural Agricultural area of the Township is the agricultural heart of the community. Farming and timber management are encouraged and promoted. Single-family homes located on large lots may also be found. Rural scenic character preservation is of great importance in this area. The night sky viewing and views of the region from ridgelines towards Pleasant Valley, Lake Arcadia, and Lake Michigan that happen here are important to the township. Also of great importance are high water quality for the streams and tributaries of Lake Arcadia, habitat protection, and wildlife conservation. Density based zoning opportunities are available for single family residential development.

Point Arcadia

Point Arcadia future land use category encompasses an area of the Township built to accommodate single-family residential development on lots that can support a larger footprint home while also ensuring well and septic systems installation. It is the intent of this area to remain single family residential and continuing to develop as stipulated in the Pointe Arcadia deeds and by-laws.

Star-Key Point

Star-Key Point is a peninsula between Lake Michigan and Lake Arcadia. The

Star-Key Point subdivision comprises 37 lots on privately-owned Star-Key Point Road. The subdivision is regulated by deed restrictions enforced by the Star-Key Point Homeowners Association. The area is unique in that each lot has either Lake Michigan or Lake Arcadia frontage. It is envisioned that this area continues to maintain the unique character of a two-lake frontage neighborhood while promoting environmental protection and public health, safety, and welfare. Future development of the Star-Key Point area must adhere to the lot boundaries shown on the subdivision plat.

Camp Arcadia

The "Camp Arcadia" future land use designation accommodates the historic Camp Arcadia and its associated single-family residential neighborhood. The Lutheran Camp Association (LCA) and the Arcadia Cottage Colony Association (ACCA) govern what is commonly called Camp Arcadia. LCA



is the organization that owns and operates the traditional camp while ACCA is steward of the cottages that were developed on privately owned lots. While Camp Arcadia is made up of multiple lots owned by different property owners, all parties belong the LCA and, if applicable, ACCA. These two entities regulate land use within Camp Arcadia. The Camp Arcadia future land use designation is meant to allow the continued use and future development of Camp Arcadia. The intent of this area is to allow the camp to grow. The Camp is comprised of single-family dwellings, assembly halls, meeting spaces, camp store and kitchens, amphitheater, and out buildings used for traditional camp purposes. This historic camp has offered a religion-based camp experience for thousands of families since its inception.

Preserve

This is land that, due to its location, unique characteristics, and natural resources, is planned for open space and environmental protection purposes with some recreational and possible farming applications. Preserve includes land currently held in conservation easements, owned by the Township and/or land designated as potential for future open space and/or conservation purposes. Attributes found within the area, such as the integrity of the night sky, topography, views, water quality, air quality, ambient noise, wildlife, and habitat are encouraged to be maintained, restored, and protected from future development within the Township.

Preserve land is an integral part of the township's placemaking strategy as it is this area that will draw visitors to shop and play once in Arcadia. This land will be used for future recreation, regional and local trail connections, protection of wildlife and associated habitats, watershed and viewshed protection, and to adds to the character of the township. Future land use considerations include taking care in the development of adjacent lands to ensure environmental protection and stewardship. When possible, connectivity to local and regional nonmotorized trails will be encouraged.

Light Industrial

The Light Industrial corridor expands approximately 1.5 miles along M- 22 between Norman Road to just past Glovers Lake Road to its south. It is bordered on the south and north by Preserve and to the east by Rural Agriculture. The Light Industrial classification area begins 400' from the centerline of M-22 extending eastward 1320' from the centerline of M-22. The land area between the road and the start of the Light Industrial area is Resort Residential. The Light Industrial ribbon of land is reserved for uses such as car washes, agricultural related businesses, veterinarians, business contractors (painters, plumbers, electrical, cement, heating, air conditions, fencing), community recreational facilities,



warehousing, lumber yards, and body shops as examples. While some of these uses may be permitted by right and others may require special land use approval, the intent is to provide a place in the Township where traditionally-considered light industrial uses have a place. The expectation is to ensure that these types of uses are accessible to M-22 but developed in such a way as to be well screened from views utilizing landscaping treatments, hours of operations compatible with adjacent residential areas, signage that is in keeping with the character of the community, and the general maintenance of the property that is above reproach.

As warehousing, storage (particularly boats and other recreational vehicles),

and truck and heavy equipment repair are dominant activities in the area, special attention is needed to ensure that the visual clutter that comes with these activities is kept at a minimum. In essence, the township embraces the maritime character that outdoor storage of boats lends to the atmosphere and wants to encourage the entrepreneurs of light industrial endeavors, but wishes to ensure that property is kept orderly and to prevent the look of abandonment and blight that might be associated with areas with this type of high-intensity land use. Future development of the area is encouraged to implement environmental protection measures which will provide good stewardship to the Arcadia Watershed and additional screening mechanisms to ensure that

the uses do not contribute to visual clutter or degradation of the character of the Township.

Business

The Business future land use category is the heart of Arcadia. Located on what could be considered a traditional main street that leads to Lake Arcadia, the Business area is the major thoroughfare to Arcadia Natural Beach Area and Lake Michigan. It is also a historical gem? With some two-story buildings, civic buildings, parks, historical architectural facades, sidewalks, and mixed uses, the Business area is an example of a downtown that is replicated in new development throughout the country. This is the street where you can see the latest community activities posted on



the Township Hall kiosk, have a picnic or play tennis at the park, drop your mail off at the post office, visit your family doctor, and then walk a short distance down the street and spend the rest of the day at the beach.

The current Business area exists solely on the west side of M-22, but this future land use category is expanded eastward to include the intersection of M-22 and Glovers Lake Road. The enlargement of this area would create connections between the existing historic business area and the Pleasant Valley Community Center, an increasingly important place for civic and recreational engagement. In addition, this category would include already developed businesses that exist at the intersection of M-22 and Glovers Lake Road. Nodal development of this type looks to keep higher density commercial development at points of high traffic intersections and close to higher population densities.

Future development of the area will look to replicate and enhance the historical architectural façade details that are found elsewhere in the area. In addition, the township supports mixed-use, two-story buildings that allow for individuals to live on the top floor and work on the bottom floor. Future development will also be encouraged to provide housing options that support low to moderate income individuals.

Marina

The Marina future land use area is directly adjacent to Arcadia Lake and Arcadia Beach Natural Area and is where Grebe Park, Mill Street and Pine Street boat launches and Veterans Memorial Marina are located. This area is home to the community's private and public marinas, boat launches, a fish cleaning station, and campground areas and includes several historic residential structures that reflect the character of the unincorporated Village's maritime past. It is envisioned that this area will build upon these assets centered upon its maritime character in order to create and support economic development opportunities in adjoining districts and throughout the community. Linking this area to the Business District is essential to create a seamless link where the synergy of the two areas can feed upon each other creating a lively, vibrant, and economically prosperous downtown area.

Uses in this area should focus on open spaces with recreational components as well as a limited select type of small business development that supports a maritime culture. Land adjacent to the water will be primarily reserved for open space protection in order to maintain the littoral character and views of Arcadia Lake. With that said, existing and limited unimposing new structures may be used to promote water based economic development initiatives but it is not desirable that residential or dense commercial development occur directly adjacent to Arcadia Lake or Arcadia Beach Natural Area on Lake Michigan. Parking and lighting regulations will serve the area adequately but will be in keeping with Dark Sky standards and best practice watershed protection measures.

Zoning

The Michigan Planning Enabling Act of 2008 requires the inclusion of a

zoning plan in the master plan. The zoning plan calls attention to changes that need to be made to the current zoning ordinance in order to align the zoning ordinance with the new master plan. Specifically, the zoning plan looks to show the relationship between the future land use map and the zoning map, and to suggest ordinance revisions to strengthen that relationship. The changes suggested are necessary in order to help implement specific aspects of the master plan.

The zoning plan in Figure 4.21 suggests the establishment of 11 zoning districts to reflect the future land use map. Zoning districts contain the legal requirements used to determine how parcels of land are to be used. Note that there are significant areas along the shoreline of Lake Michigan that are designated High Risk Erosion Areas by the State of Michigan. Development in these areas must meet State of Michigan High-Risk Erosion standards, most notably setback standards regardless of local zoning regulations. The suggested zoning districts are:

P Preserve

VR Village Residential RR Rural Residential R-AG Rural Agriculture PA Point Arcadia SP Star-Key Point CA Camp Arcadia B Business LI Light Industrial M Marina

These zoning districts, and the regulations that accompany them, work together to strengthen the relationship between the Future Land Use map and the Cornerstones of this master plan.

4.21: Zoning chart

-				
PROPOSED ZONING DISTRICTS	USES (general)	SETBACKS	MINIMUM LOT SIZE	NOTES
VILLAGE RESIDENTIAL VR	Residential	FRONT 10' SIDE 8' REAR 25'	Without sewer/ water 7500 sq. ft. With sewer/water 6000 sq. ft.	Enhance the front yard averaging and encroachment standards and develop other flexibility standards to ensure that the current historic neighborhood character is replicable. One such tool to consider is a Form Based Code for this specific area.
RURAL RESIDENTIAL RR	 Residential Agriculture & Related Uses Child/Adult Care Facilities Some General Commercial 	FRONT 25' or 133' from the center of the paved portion of M-22 SIDE 10' REAR 25' WATERFRONT 50' ordinary high water mark	No minimum. Based on Conservation Design Methods	Encourage clustering of residential development with the remaining land preserved for open space by using a density schedule and/or Planned Unit Development. Incentivize the various residential development options.
RURAL AGRICULTURE R-AG	 Residential Agriculture & Related Uses Child/Adult Care Facilities Some General Commercial 	FRONT 50' or 133' from the center of the paved portion of M-22 SIDE 20' REAR 50'	No minimum. Based on Conservation Design Methods	Promote residential development that is sympathetic to rural scenic character preservation and that is understanding of agricultural practices.
POINT ARCADIA PA	Residential	FRONT 25' except lots 33'-40' = 45' SIDE 5' REAR/WATERFRONT 100' except lots 58, 59, 64, 65 = 75' and lots 60, 61, 62, 63 = 65'	30,000 sq. ft.	Work with the Pt. Arcadia Home Owners Association and Valley Cove Home Owners Association to understand their development needs and limitations in order to develop the Point Arcadia zoning designation.
Star-key Point Sp	Residential	FRONT 10' SIDE 5' WATERFRONT 50'	30,000 sq. ft.	Note that there are areas of Star-Key Point that are designated High Risk Erosion Areas by the State of Michigan. Development in these areas must meet State of Michigan High-Risk Erosion standards, most notably setback standards regardless of local zoning regulations

PROPOSED ZONING DISTRICTS	USES (general)	SETBACKS	MINIMUM LOT SIZE	NOTES
CAMP ARCADIA CA	 Single or Two Family Residential Camp Activities and their associated buildings 	FRONT 25' SIDE 10% of lot width REAR 25'	30,000 sq. ft. to ensure adequate isolation distances for well and septic. (unless a community system is installed)	Develop specific land use regulations and site plan review guidelines to address the uniqueness of Camp Arcadia.
BUSINESS B	 Residential Marinas Retail Personal Service Establishments Food Establishments Professional Office/ Service Places of worship/ gathering Lodging 	FRONT up to 12' SIDE 5'; 0' if stormwater does not drain on adjoining property REAR 12'	No minimum required	Develop architectural guidelines for the buildings, streetscape guidelines to create an unified look throughout the community (benches, plantings, banners, street lights, color schemes, etc.) and use requirements. Consider developing a Form Based Code for this area.
LIGHT INDUSTRIAL LI	 Professional Office/Service Auto Related Warehousing/Storage/ Start up buisness Educational Adult Foster Care Facilties Contractors supplies and facilities 	FRONT 50' SIDE 20'; if abutting a residential zone or master planned for residential, 50' REAR 50'; if abutting a residential zone or master planned for residential, 75'	140′ width 1 acre	The area spanning 400' from the centerline of the paved portion of M-22 to 1,320' from the centerline of the paved portion of M-22 and 400' from the centerline of the paved portion of Glovers Lake Road north and south
MARINA M	 Parks Boat Launches Retail Professional offices Lodging Restaurants 	FRONT 5' SIDE 10' REAR 5'	30,000 sq. ft. if served by infrastructure, 6,000 sq. ft.	Encourage the use of the development of a maritime character in the architecture and streetscape elements.
PRESERVE P	 Open Space Farming Limited Recreation	N/A	N/A	Develop environmental stewardship standards to ensure that adjacent development is sympathetic to the Preserve lands.

Action Plan

The overall success of the Arcadia Township Master Plan will be determined by how many of the recommendations have been implemented.

This linkage between master plan acceptance and its eventual implementation is often the weakest link in the planning and community building process. All too often we hear that familiar phrase, "The plan was adopted and then sat on the shelf." The plan is cited as the failure, but the real culprit was the failure to execute or implement the plan.

Implementation of the Arcadia Township Master Plan is predicated on the completion of the tasks outlined in the Action Plan.

4.22: Action plan

RECOMMENDED IMPLEMENTATION STRATEGY 2013 - 2018			
Action Item	Description	Responsible Party	
Blue and green non-motorized trail plan	Work through the L2L Regional Initiative to prepare a non-motorized trail plan.	Planning Commission	
Sanitary sewer project analysis and feasibility study	Commission the preparation of an analysis and feasibility study for the installation of a sanitary sewer system.	Planning Commission and Board of Trustees	
Watershed plan	Develop a Watershed Plan.	Watershed Subcommittee of the Planning Commission and Board of Trustees	
Streetscape improvements	Prepare a streetscape improvement plan for the commercial areas of the Township.	Planning Commission and Parks and Recreation Committee	
Pleasant Valley Community Center regional trail hub	Work to establish the PVCC as a regonal trail hub where blue and green trail information is available and other amenities are established to meet the needs of the users.	Planning Commission and the Pleasant Valley Community Center	

LAKES TO LAND REGIONAL INITIATIVE | IIII

Appendix

Sources

Tab 2 – by Page

26. United States Geological Survey. "USGS Water Science school: the effects of urbanization on water quality: phosphorous." Last modified March 2013. http://ga.water.usgs.gov/edu/phosphorus.html

31. Michigan Department of Environmental Quality. "Cadillac district watersheds with approved watershed plans." Last modified August 21, 2012. http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3714_31581-96473--,00.html

34. Michigan Department of Environmental Quality. "State and Federal Wetland Regulations." Undated. http://www.michigan. gov/deq/0,4561,7-135-3313_3687-10801--,00.html

34. Ducks Unlimited. "Ducks Unlimited Received 11 Great Lakes Restoration Initiative Grants for Conservation in Michigan." 2011 Conservation Report. http://www.ducks.org/media/Conservation/GLARO/_documents/_library/_conservation/_ states/2011/Michigan_Report2011.pdf

35. National Parks Service. "A Nationalized Lakeshore: The Creation and Administration of Sleeping Bear Dunes National Lakeshore." Theodore J. Karamanski. 2000. http://www.nps.gov/history/history/online_books/slbe/. Photo: http://www.nps.gov/slbe/images/20060901164502.JPG

38. Michigan Department of Environmental Quality. "Sand Dune Protection." Undated. http://www.michigan.gov/ deq/0,4561,7-135-3311_4114_4236---,00.html

40. M-22. "About Us." February 2009. https://m22.com/?category_name=about-us

42. MichiganHighways.org. "Historic Auto Trails." Last modified March 2013. http://www.michiganhighways.org/indepth/auto_trails.html

42. Schul, Dave. "North American Auto Trails." Last modified October 1999. http://academic.marion.ohio-state.edu/schul/ trails/trails.html

43. County Road Association of Michigan. "Michigan's County Road Commissions: Driving Our Economy Forward." Undated (circa 2008). http://www.micountyroads.org/PDF/econ_broch.pdf

43. Michigan Traffic Crash Facts. "Reported Traffic Crashes by County in Michigan." 2011. http://publications. michigantrafficcrashfacts.org/2011/quick_2.pdf

43. Michigan Traffic Crash Facts. "Crash Rate Per Licensed Driver by Age of Driver in All Crashes." 2011. https://s3.amazonaws.com/mtcf.pubs/2011/veh_17.pdf

43. Michigan Department of Transportation. "North Region Winter Level of Service for 2011-2012." Approved October 2011. http://www.michigan.gov/documents/mdot/MDOT_LoS_map_North_08-09_FINAL_255162_7.pdf

46. United States Army Corps of Engineers. "Great Lakes Navigation System: Economic Strength to the Nation. Last modified March 2013. http://www.lre.usace.army.mil/Portals/69/docs/Navigation/GLN_Strength%20to%20the%20Nation%20Booklet 2013v2_final2w.pdf

46. United States Army Corps of Engineers. "Great Lakes Harbors." Arcadia, Frankfort, Manistee, Portage Lake entries all last modified April 2013. http://www.lre.usace.army.mil/Missions/GreatLakesNavigation/GreatLakesHarborFactSheets.aspx

47. RRHX: Michigan's Internet Railroad History Museum. "The Evolution of Michigan's Railroads." Undated. http://www. michiganrailroads.com/RRHX/Evolution/EvolutionProjectDescription.htm

50. Airnav.com. "Airports." Updated May 2013. http://www.airnav.com/airport/KMBL; http://www.airnav.com/airport/KFKS; http://www.airnav.com/airport/7Y2

50. The Rotarian. "Soaring on a Shoestring," Karl Detzer. December 1939, Volume LV No. 6, p. 16-18. Accessed via books. google.com.

53. Annals of the American Academy of Political and Social Science. "Educational Value of Public Recreation Facilities," Charles Mulford Robinson. March 1910, Vol. 35, No. 2, pp. 134-140. http://www.jstor.org/stable/1011260

53. Southwick Associates, for the National Fish and Wildlife Foundation. "The Economics Associated with Outdoor Recreation, Natural Resources Conservation and Historic Preservation in the United States." October 2011. http://www.trcp.org/assets/pdf/The_Economic_Value_of_Outdoor_Recreation.pdf

57. Michigan Department of Natural Resources, Parks and Recreation Division. "Michigan Public Boat Launch Directory." Undated during the Engler administration (1991-2003). http://www.michigan.gov/documents/btaccess_23113_7.pdf

57. Great Lakes Commission, for the United States Army Corps of Engineers. "Great Lakes Recreational Boating's Economic Punch." December 2008. http://www.glc.org/recboat/pdf/rec-boating-final-small.pdf

http://www.lre.usace.army.mil/_kd/Items/actions.cfm?action=Show&item_id=6197&destination=ShowItem

Great Lakes Recreational Boating report in response to PL 106-53, Water resources development act of 1999, US Army Corps of engineers, Dec. 2008

60. Michigan Department of Natural Resources. "Value of Wildlife to Michigan." Undated. http://www.michigan.gov/ dnr/0,4570,7-153-10370_30909_43606-153356--,00.html

60. Michigan Department of Natural Resources. "75th anniversary of Pittman-Robertson Act is a perfect time to celebrate hunters' role in conservation funding." August 2012. http://www.michigan.gov/dnr/0,4570,7-153-10366_46403-284662--,00.html

67. Interlochen Public Radio. "Art Around the Corner – Frankfort's Post Office Mural." February 2012. http://ipr.interlochen. org/art-around-corner/episode/18226

68. National Parks Service National Register of Historic Places. "Telling the Stories: Planning Effective Interpretive Programs for Properties Listed in the National Register of Historic Places bulletin," Ron Thomson and Marilyn Harper. 2000. http://www.nps.gov/nr/publications/bulletins/pdfs/interp.pdf

68. National Parks Service National Register of Historic Places. Database. Varying dates. http://nrhp.focus.nps.gov/ natreghome.do?searchtype=natreghome

69. Michigan Lighthouse Conservancy. "The United States Lighthouse Service." Last modified June 2011. http://www. michiganlights.com/lighthouseservice.htm

69. terrypepper.com. "The Lighthouses of Lake Michigan." Last modification date varies; July 2004-January 2007. http://www. terrypepper.com/lights/lake_michigan.htm

78. United States Bureau of Labor Statistics. "Education Pays." March 2012. http://www.bls.gov/emp/ep_chart_001.htm

79. Esri. "Tapestry Segmentation Reference Guide." 2012. http://www.esri.com/library/brochures/pdfs/tapestrysegmentation.pdf

84. Metlesits, Dave. "Season 1-2 dash in Photoshop" (illustration of KITT car dashboard from "Knight Rider"). April 2007. http://davemetlesits.deviantart.com/gallery/10189144?offset=24#/dvkxfu

Tab 4 – by Subject

Cornerstones

US Army Corps of Engineers, Detroit District. "Great Lakes Harbor Fact Sheets: Arcadia Harbor." Accessed March 2013. http://www.lre.usace.army.mil/Missions/GreatLakesNavigation/GreatLakesHarborFactSheets/ArcadiaHarbor.aspx

Economics

United Stated Department of Labor Bureau of Labor Statistics. "Industries at a Glance. Manufacturing: NAICS 31-33." Data extracted February 2013. http://www.bls.gov/iag/tgs/iag31-33.htm

United Stated Department of Labor Bureau of Labor Statistics. "Industries at a Glance. Retail Trade: NAICS 44-45." Data extracted February 2013. http://www.bls.gov/iag/tgs/iag44-45.htm

ReferenceForBusiness.com. "Service Industry." Accessed March 2013. http://www.referenceforbusiness.com/management/Sc-Str/Service-Industry.html

Esri. "2011 Methodology Statement: Esri Data—Business Locations and Business Summary." March 2012. http://www.esri. com/~/media/Files/Pdfs/library/whitepapers/pdfs/esri-data-business-locations.pdf

University of Washington West Coast Poverty Center. "Poverty and the American Family." 2009. http://depts.washington.edu/wcpc/Family

United States Department of Labor Bureau of Labor Statistics. "Highlights of Women's Earnings in 2009." June 2010. http://www.bls.gov/cps/cpswom2009.pdf

Commuting

Center for Neighborhood Technology. "H+T Affordability Index." Data extracted March 2013. http://htaindex.cnt.org/about. php; http://htaindex.cnt.org/map/

Slate.com. "Your Commute Is Killing You," Annie Lowrey. May 2011. http://www.slate.com/articles/business/ moneybox/2011/05/your_commute_is_killing_you.single.html (studies cited: http://www.gallup.com/poll/142142/wellbeinglower-among-workers-long-commutes.aspx; http://www.sciencedirect.com/science/article/pii/S1353829205000572; http:// ideas.repec.org/p/zur/iewwpx/151.html)

Traffic Counts

Michigan Department of Transportation. Average daily traffic map. 2011. http://mdotwas1.mdot.state.mi.us/public/maps_adtmaparchive/pdf/2011adt/AADT_STATE_FrontPg-2011_29x30_NO_INSETS.pdf

Michigan Department of Transportation. Traffic monitoring information system. Built October 2007; data extracted March 2013. http://mdotnetpublic.state.mi.us/tmispublic/

Infrastructure

PEI Infrastructure Investor. "What in the world is infrastructure?" Jeffrey Fulmer. July / August 2009, p 30-32.

American Society of Civil Engineers. "Report Card for America's Infrastructure." 2013. http://www.infrastructurereportcard. org/

The Economist. "D (for dilapidated) plus: Slightly better roads and railways, but don't live near a dam." April 6, 2013. http://www.economist.com/news/united-states/21575781-slightly-better-roads-and-railways-dont-live-near-dam-d-dilapidated-plus

Michigan.gov. Mi Dashboard. Data extracted March 2013. http://www.michigan.gov/midashboard/0,4624,7-256-59631---,00.html

Michigan Transportation Asset Management Council. "PASER Collection." Accessed March 2013. http://www.mcgi.state.mi.us/ MITRP/Educ_Training/PASERCollection.aspx

Michigan Department of Licensing and Regulatory Affairs, Public Service Commission. "Michigan Service Areas of Electric and Gas Utilities." Data extracted March 2013. http://www.dleg.state.mi.us/cgi-bin/mpsc/electric-gas-townships.cgi?townsearch=p*

Michigan Department of Licensing and Regulatory Affairs, Public Service Commission. "MPSC Issues Annual Report on Renewable Energy." February 2013. http://www.michigan.gov/mpsc/0,4639,7-159-16400_17280-295134--,00.html

United States Environmental Protection Agency. "Michigan Renewable Energy Maps." Data extracted March 2013. http://www.epa.gov/renewableenergyland/maps_data_mi.htm

Connect Michigan. "My ConnectView" interactive map. Data extracted March 2013. http://www.connectmi.org/interactivemap

Merit Network. "Merit's ARRA Projects: REACH-3MC Fiber-Optic Network Update." February 2013. http://www.merit.edu/ documents/pdf/reach3mc/REACH-3MC_Project_Overview.pdf

Land

United States Geological Survey. "The National Map." Accessed March 2013. http://nationalmap.gov/

United States Department of Agriculture Forest Service, Northern Research Station. "Michigan Surficial Geology." Accessed March 2013. http://www.ncrs.fs.fed.us/gla/geology/images/mi-surfgeo.gif

United States Geological Survey. "Classification of Wetlands and Deepwater Habitats of the United States: Emergent Wetland." Last modified February 2013. http://www.npwrc.usgs.gov/resource/wetlands/classwet/emergent.htm

Michigan Department of Environmental Quality. "The Sand Dunes Program." Accessed March 2013. http://www.michigan.gov/deq/0,4561,7-135-3311_4114_4236-9832--,00.html

Data

US Census Bureau, American Community Survey 2006-2010, Selected Social Characteristics (DP02), Selected Economic Characteristics (DP03), and Selected Housing Characteristics (DP04)

Subject	Arcadia		
·	Estimate	Percent	
POPULATION			
1990	523	NA	
2000	621	1.87%	
2010	639	0.29%	
2016 (proj.)	655	0.42%	
HOUSING OCCUPANCY			
Total Housing Units	574	574	
Owner-occupied	266	46.3%	
Renter-occupied	30	5.2%	
Seasonal/Recreational/Occasional use	242	42.2%	
Vacant - For Sale, For Rent, etc.	36	6.3%	
EDUCATIONAL ATTAINMENT			
Population 25 years and over	466	466	
Less than high school	27	5.80%	
High school graduate and equivalency	133	28.50%	
Some college, no degree	119	25.50%	
Associate's degree	27	5.80%	
Bachelor's degree	96	20.60%	
Graduate or professional degree	64	13.70%	
Percent high school graduate or higher	(X)	94.20%	
Percent bachelor's degree or higher	(X)	34.30%	
SCHOOL ENROLLMENT		54.50%	
Population enrolled in school	65	10.17%	
CLASS OF WORKER	05	10.17 /0	
Civilian employed population 16 years+	159	159	
Civilian employed population 16 years+ Private wage and salary workers	128	80.50%	
Government workers	19	11.90%	
Self-employed	12	7.50%	
Unpaid family workers	0	0.00%	
	88.1%	0.00%	
Private sector jobs INCOME AND BENEFITS (IN 2010	00.1/0		
INFLATION-ADJUSTED DOLLARS) Total households	272	272	
Less than \$10,000	4	1.50%	
\$10,000 to \$14,999	17	6.30%	
\$15,000 to \$24,999	30	11.00%	
\$25,000 to \$34,999	41	15.10%	
\$35,000 to \$49,999	53	19.50%	
\$50,000 to \$74,999	74	27.20%	
\$75,000 to \$99,999	21	7.70%	
\$100,000 to \$149,999	19	7.00%	
\$150,000 to \$199,999	6	2.20%	
\$200,000 or more	7	2.60%	
Median household income (dollars)	, 48,269	(X)	
Very low income	40,207 51	18.8%	
Low income	41	15.1%	
Moderate income	127	46.7%	
	40	46.7% 14.7%	
High income	40 13	4.8%	
Very high income	13	4.0⁄0	

Per capita income	28,124	(X)
Median earnings for workers (dollars)		(X) (X)
Median earnings for male full-time,	53,438	(X)
vear-round workers (dollars)	00,400	(⁷)
	30,000	(X)
<u>vear-round workers (dollars)</u> POVERTY		
All families	(X)	3.30%
All people	(X)	5.00%
Under 18 years	(X)	10.80%
Receiving food stamps	9	3.30%
Receiving cash assistance	3	1.10%
INDUSTRY		
Civilian employed population 16	159	159
years and over		
Agriculture, forestry, fishing and	0	0%
hunting, and mining		
Construction	26	16%
Manufacturing	9	6%
Wholesale trade	4	3%
Retail trade	13	8%
Transportation and warehousing, and	9	6%
utilities		
Information	0	0%
Finance and insurance, and real	7	4%
estate and rental and leasing		
Professional, scientific, and	5	3%
management, and administrative and	-	• • •
waste management services		
Educational services, and health care	48	30%
and social assistance	-10	00/0
Arts, entertainment, and recreation,	17	11%
and accommodation and food services		11/0
Other services, except public	14	9%
administration		//0
Public administration	7	4%
Manufacturing to retail jobs	, 0.69	→ /0
Non-retail	115	
	30	
Retail, arts, accommodations, food	30 3.83	
Non-retail to retail, arts, acc., food	ა.შპ	

EMPLOYMENT STATUS		
Population 16 years and over	490	490
In labor force	176	35.90%
Civilian labor force	176	35.90%
Employed	159	32.40%
Unemployed	17	3.50%
Armed Forces	0	0.00%
Not in labor force	314	64.10%
	176	176
Civilian labor force		
Percent Unemployed	(X)	9.70%
Jobs per 1,000 residents	249	
Non-service jobs per 1,000 residents COMMUTING TO WORK	249	
COMMUTING TO WORK		
Workers 16 years and over	149	149
Drove alone	108	72.50%
Carpooled	20	13.40%
Public transit (except taxi)	0	0.00%
Walked	11	7.40%
Other means	3	2.00%
Worked at home	7	4.70%
Workers who commute	142	95.30%
Commuters who drive alone	1	76.06%
Mean travel time to work (minutes)	28.2	(X)
HOUSEHOLDS BY TYPE	20.2	(74)
Total households	272	272
Average household size	1.99	(X)
	2.25	(X)
Average family size VETERAN STATUS	2.23	(^)
	477	477
Civilian population 18 years +	477	477
Civilian veterans	61	12.80%
ANCESTRY	5.40	15.40
Total population	542	542
American	41	7.60%
Arab	0	0.00%
Czech	0	0.00%
Danish	17	3.10%
Dutch	16	3.00%
English	97	17.90%
		1.30%
French (except Basque)	7	1.30/0
French (except Basque) French Canadian	7	0.70%
French (except Basque) French Canadian German	-	
French Canadian German	4 184	0.70% 33.90%
French Canadian German Greek	4 184 0	0.70% 33.90% 0.00%
French Canadian German Greek Hungarian	4 184 0 2	0.70% 33.90% 0.00% 0.40%
French Canadian German Greek Hungarian Irish	4 184 0 2 81	0.70% 33.90% 0.00% 0.40% 14.90%
French Canadian German Greek Hungarian Irish Italian	4 184 0 2 81 21	0.70% 33.90% 0.00% 0.40% 14.90% 3.90%
French Canadian German Greek Hungarian Irish Italian Lithuanian	4 184 0 2 81 21 24	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian	4 184 0 2 81 21 24 16	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish	4 184 0 2 81 21 24 16 38	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese	4 184 0 2 81 21 24 16 38 0	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian	4 184 0 2 81 21 24 16 38 0 0	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish	4 184 0 2 81 21 24 16 38 0 0 0 13	0.70% 33.90% 0.00% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 2.40%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish	4 184 0 2 81 21 24 16 38 0 0 13 23	0.70% 33.90% 0.00% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 2.40% 4.20%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak	4 184 0 2 81 21 24 16 38 0 0 13 23 0	0.70% 33.90% 0.00% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 2.40% 4.20% 0.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African	4 184 0 2 81 21 24 16 38 0 0 13 23 0 0 0 0 0 0 0 0 0 0 0 0 0	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 4.20% 0.00% 0.00%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish	4 184 0 2 81 21 24 16 38 0 0 13 23 0 0 25	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 4.20% 0.00% 0.00% 4.60%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African	4 184 0 2 81 24 16 38 0 0 13 23 0 0 25 4	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 4.20% 0.00% 0.00% 0.00% 4.60% 0.70%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish	4 184 0 2 81 21 24 16 38 0 0 13 23 0 0 25	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 4.20% 0.00% 0.00% 4.60%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish Swiss	4 184 0 2 81 24 16 38 0 0 13 23 0 0 25 4	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 4.20% 0.00% 0.00% 0.00% 4.60% 0.70%
French Canadian German Greek Hungarian Irish Italian Lithuanian Norwegian Polish Portuguese Russian Scotch-Irish Scottish Slovak Subsaharan African Swedish Swiss Ukrainian	4 184 0 2 81 24 16 38 0 0 13 23 0 0 25 4 0	0.70% 33.90% 0.40% 14.90% 3.90% 4.40% 3.00% 7.00% 0.00% 0.00% 2.40% 4.20% 0.00% 4.60% 0.70% 0.00%

OCCUPATION		
Management, business, science, and	49.60%	+/-10.3
arts occupations		
Service occupations	8.80%	+/-5.1
Sales and office occupations	20.40%	+/-8.1
Natural resources, construction, and		+/-8.6
maintenance occupations		,
Production, transportation, and material	9.70%	+/-4.6
moving occupations		,
VALUE		
Owner-occupied units	264	264
Median home value (dollars)	164,600	
MORTGAGE STATUS		
Owner-occupied units	264	264
Housing units with a mortagae	91	34.50%
Housing units with a mortgage Housing units without a mortgage	173	65.50%
GROSS RENT		
Occupied units paying rent	0	0
Median rent (dollars)	-	(X)
HOUSE HEATING FUEL		
Occupied housing units	272	272
Utility gas	0	0.00%
Bottled, tank, or LP gas	215	79.00%
Electricity	15	5.50%
Electricity Fuel oil, kerosene, etc.	9	3.30%
Coal or coke	0	0.00%
Wood	33	12.10%
Solar energy	0	0.00%
Other fuel	0	0.00%
No fuel used	0	0.00%
YEAR STRUCTURE BUILT		
Total housing units	517	517
Built 2005 or later	32	6.20%
Built 2000 to 2004	42	8.10%
Built 1990 to 1999	106	20.50%
Built 1980 to 1989	59	11.40%
Built 1970 to 1979	39	7.50%
Built 1960 to 1969	32	6.20%
Built 1950 to 1959	34	6.60%
Built 1940 to 1949	16	3.10%
Built 1939 or earlier	157	30.40%

Notes for US Census Bureau, American Community Survey 2006-2010, Tables S2403, S2404, B20005 (following pages)

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The methodology for calculating median income and median earnings changed between 2008 and 2009. Medians over \$75,000 were most likely affected. The underlying income and earning distribution now uses \$2,500 increments up to \$250,000 for households, non-family households, families, and individuals and employs a linear interpolation method for median calculations. Before 2009 the highest income category was \$200,000 for households, families and non-family households (\$100,000 for individuals) and portions of the income and earnings distribution contained intervals wider than \$2,500. Those cases used a Pareto Interpolation Method.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2007. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, ""NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies,"" issued by the Office of Management and Budget.

While the 2006-2010 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.

B20005: SEX BY WORK EXPERIENCE IN THE PAST 12 MONTHS BY EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) FOR THE POPULATION 16 YEARS AND OVER

2006-2010 American Community	/ Survey 5-Ye	ar Estimates
	Estimate	Margin of
	Lotiniato	Error
Total:	490	+/-80
Male:	241	+/-42
Worked full-time, year-round	43	+/-18
in the past 12 months:		
No earnings	0	+/-109
With earnings:	43	+/-18
\$1 to \$2,499 or loss	0	+/-109
\$2,500 to \$4,999	0	+/-109
\$5,000 to \$7,499	0	+/-109
\$7,500 to \$9,999	0	+/-109
\$10,000 to \$12,499	0	+/-109
\$12,500 to \$14,999	0	+/-109
\$15,000 to \$17,499	0	+/-109
\$17,500 to \$19,999	4	+/-5
\$20,000 to \$22,499	0	+/-109
\$22,500 to \$24,999	0	+/-109
\$25,000 to \$29,999	4	+/-7
\$30,000 to \$34,999	5	+/-5
\$35,000 to \$39,999	0	+/-109
\$40,000 to \$44,999	4	+/-5
\$45,000 to \$49,999	0	+/-109
\$50,000 to \$54,999	7	+/-8
\$55,000 to \$64,999	2	+/-5
\$65,000 to \$74,999	3	+/-4
\$75,000 to \$99,999	0	+/-109
\$100,000 or more	14	+/-10
Other:	198	+/-38
No earnings	121	+/-30
With earnings:	77	+/-26
\$1 to \$2,499 or loss	7	+/-7
\$2,500 to \$4,999	11	+/-9
\$5,000 to \$7,499	9	+/-9
\$7,500 to \$9,999	6	+/-5
\$10,000 to \$12,499	3	+/-5
\$12,500 to \$14,999	10	+/-12
\$15,000 to \$17,499	0	+/-109
\$17,500 to \$19,999	3	+/-5
\$20,000 to \$22,499	0	+/-109
\$22,500 to \$24,999	6	+/-7
\$25,000 to \$29,999	3	+/-4
\$30,000 to \$34,999	0	+/-109
\$35,000 to \$39,999	4	+/-5
\$40,000 to \$44,999	0	+/-109
\$45,000 to \$49,999	4	+/-6
\$50,000 to \$54,999	0	+/-109
\$55,000 to \$64,999	0	+/-109
\$65,000 to \$74,999	11	+/-103
\$75,000 to \$99,999	0	+/-109
\$100,000 or more	0	+/-109
		T/103

	Estimate	Margin of Error
		LIIOI
Female:	249	+/-43
Worked full-time, year-round	34	+/-16
in the past 12 months:		
No earnings	0	+/-109
With earnings:	34	+/-16
\$1 to \$2,499 or loss	0	+/-109
\$2,500 to \$4,999	0	+/-109
\$5,000 to \$7,499	0	+/-109
\$7,500 to \$9,999	0	+/-109
\$10,000 to \$12,499	1	+/-3
\$12,500 to \$14,999	3	+/-5
\$15,000 to \$17,499	6	+/-6
\$17,500 to \$19,999	0	+/-109
\$20,000 to \$22,499	5	+/-7
\$22,500 to \$24,999	0	+/-109
\$25,000 to \$29,999	2	+/-4
\$30,000 to \$34,999	2	+/-3
\$35,000 to \$39,999	8	+/-7
\$40,000 to \$44,999	0	+/-109
\$45,000 to \$49,999	0	+/-109
\$50,000 to \$54,999	0	+/-109
\$55,000 to \$64,999	4	+/-5
\$65,000 to \$74,999	0	+/-109
\$75,000 to \$99,999	3	+/-5
\$100,000 or more	0	+/-109
Other:	215	+/-40
No earnings	133	+/-28
With earnings:	82	+/-32
\$1 to \$2,499 or loss	34	+/-21
\$2,500 to \$4,999	5	+/-6
\$5,000 to \$7,499	19	+/-19
\$7,500 to \$9,999	6	+/-7
\$10,000 to \$12,499	2	+/-3
\$12,500 to \$14,999	0	+/-109
\$15,000 to \$17,499	3	+/-4
\$17,500 to \$19,999	0	+/-109
\$20,000 to \$22,499	0	+/-109
\$22,500 to \$24,999	0	+/-109
\$25,000 to \$29,999	0	+/-109
\$30,000 to \$34,999	3	+/-4
\$35,000 to \$39,999	3	+/-4
\$40,000 to \$44,999	0	+/-109
\$45,000 to \$49,999	0	+/-109
\$50,000 to \$54,999	4	+/-5
\$55,000 to \$64,999	0	+/-109
\$65,000 to \$74,999	3	+/-4
\$75,000 to \$99,999	0	+/-4
\$100,000 or more	0	+/-109

ARS)		
TED DOLLAR		
FION-ADJUS		
I 2010 INFLA		
DIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLA		
FHE PAST 12	AND OVER	
RNINGS IN	PULATION 16 YEARS AND OVER	vey 5-Year Estimates
ME	POPULATIC	/ Survey 5-Ye
DUSTRY BY SEX ANI	N EMPLOYED POP	in Community
: INDUSTRY	OR THE CIVILIAN	3-2010 American (
S2403	FOR T	2006-2010

FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS 2006-2010 American Community Survey 5-Year Estimates	ION 16 Y ear Estin		AND OVER	~								
	Total	tal	⁹ W	Male	Ferr	Female	Median (dc	Median earnings (dollars)	Median	Median earnings: male	Median (fem	Median earnings: female
	Estimate Rargin	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror
Civilian employed population 16 years and	159	+/-40	57.9%		42.1%	+/-10.6	30,469	+/-8,271	39,375	29	20,250	+/-9,751
Agriculture, forestry, fishing and hunting, and mining.	0	+/-109	1	*		*		* *	1	*		**
Agriculture, forestry, fishing and hunting	0	+/-109		**	*	**	-	**		**		**
Mining, quarrying, and oil and gas extract	0	+/-109		*	*	**	-	**		**		**
Construction	26	+/-13	100.0%	+/-53.5	0.0%	+/-53.5	28,750	+/-11,002	28,750	+/-11,002		**
Manufacturing	6	7-/+	0.0%	+/-90.9	100.0%	+/-90.9	28,125	+/-18,330	-	**	28,125	+/-18,330
Wholesale trade	4	-/+	100.0%	+/-100.0		+/-100.0	-	**		**	<u> </u>	*
	13	+/-11	46.2%	+/-29.1	53.8% +	+/-29.1	11,250	+/-16,552	2,500-		21,250	+/-22,633
Transportation and warehousing, and utilities:	ი	+/-10	66.7%	+/-28.9	33.3% +	+/-28.9	63,125	+/-41,773	66,250	+/-12,358		**
Transportation and warehousing	6	+/-10	66.7%	+/-28.9	33.3% +	+/-28.9	63,125	+/-41,773	66,250	+/-12,358		**
Utilities	0	+/-109		**	<u>*</u>	**	-	**	-	**		**
Information	0	+/-109	-	**	*	÷	-	**	-	**		**
Finance and insurance, and real estate and	2	+/-10	%0.0	+/-100.0	100.0% +	+/-100.0	2,500-	* * *	I	**	2,500-	***
Finance and insurance	0	+/-109		**		*		**		**		**
Real estate and rental and leasing		+/-10	0.0%	+/-100.0	100.0%	+/-100.0	2.500-	***		**	2.500-	***
Professional, scientific, and management, a	5	9-/+	40.0%				80,417	+/-65,539		**		**
ind administrative and waste management s												
Professional, scientific, and technical serv	5	9-/+	40.0%	+/-50.9	0.0% ⊦	+/-50.9	80,417	+/-65,539	1	*		*
Management of companies and enterpris	0	+/-109		*	*	*		*		*		*
Administrative and support and waste man	0	+/-109		**	*	*		**		**		*
6	01	30 / .	20/				EC 07E		010	. / 06 056 07 017		010 01 /
Equcational services, and nearth care and s ocial assistance:	0 0	C7-/+	00.0%	, c.uz-/+	+0.0%	+/-ZU.J	00'0'0	+/-21,000	107,013	-/-40,400		+/-10,419
rvices	20	+/-19	85.0%	+/-21.3	15.0%	+/-21.3	65,833	+/-50,382	66,250	+/-33,935	<u> </u>	*
Health care and social assistance	28	+/-18	35.7%		64.3%	+/-18.1	55,000	+/-11,832	163,333	42,270	39,167	+/-24,443
ion, and acc	17	+/-10	41.2%	+/-35.0	58.8% +	+/-35.0	7,188	+/-9,664	2,500-	***	8,750	+/-7,779
ommodauon and lood services: Arts entertainment and recreation	c	+/-109		**	*	**		**		**		**
Accommodation and food services	17	+/-10	41.2%	+/-35.0	58.8%	+/-35.0	7,188	+/-9,664	2,500-	***	8,750	+/-7,779
Other services, except public administration	14	+/-10				+/-27.2	30,000	+/-46,019	43,750	+/-44,139		*
Public administration	2	+/-6	42.9%	+/-48.0	57.1% +	+/-48.0	7,917	+/-2,572		**	6,667	+/-5,677
PERCENT IMPUTED												
	6.3%	(X)	(X)	(X)) (X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

S2404: INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLAT FOR THE FULL-TIME, YEAR-ROUND CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER 2006-2010 American Community Survey 5-Year Estimates	RNINGS IN 7 N EMPLOYE ar Estimates	THE PA	NST 12 N PULATIO	MONTH NO 16 Y	S (IN 201 EARS AN	0 INFLAT	rion-AD	THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) ED POPULATION 16 YEARS AND OVER	OLLARS)			
	Total		Male	٥	Fen	Female	Median	Median earnings (d ollars)	Median (Median earnings (Median dollars)	earnings (for female
	Estimate Margin of		Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror	Estimate	Margin of Frror		Margin of Frror
Full-time, year-round civilian employed popul 77	7 +/-27	27 55	55.8% +		44.2%	+/-14.0	38,750	+/-15,504	53,438		30,000	+/-15,786
Agriculture, forestry, fishing and hunting, and 0	+/-1	- 601	*	*		**		**		**		*
Agriculture, forestry, fishing and hunting 0	+/-1	- 601	*	*		**		**		**	-	**
ction		- 601	*	*		**	1	**		**	-	**
Construction 7	9-/+		100.0% +	+/-100.0	0.0%	+/-100.0	19,688	+/-19,235	19,688	+/-19,235	-	**
Manufacturing 5	+/-2			+/-100.0	100.0%	+/-100.0	17,083	+/-23,829	-	**	17,083	+/-23,829
Wholesale trade	/+		100.0% +	+/-100.0	0.0%	+/-100.0	-	**	-	**	-	**
Retail trade 5	+/-2			+/-100.0	100.0%	+/-100.0	22,083	+/-11,983	-	**	22,083	+/-11,983
Transportation and warehousing, and utilities: 6	-/+		100.0% +		0.0%	+/-100.0	66,250	+/-12,358	66,250	+/-12,358		**
Transportation and warehousing	2-/+		100.0% +	+/-100.0	0.0%	+/-100.0	66,250	+/-12,358	66,250	+/-12,358	-	**
Utilities 0		- 60	*	**	1	**	1	**	1	**	1	**
Information 0	+/-1	- 60	*	**	-	**	-	**	-	**	-	**
Finance and insurance, and real estate and r 0	+/-1	- 601	*	**		* *		**		**	-	**
Finance and insurance	+/-1	- 601	*	**		**		**		**		**
and leasing			*	*		**		**		**		**
Professional, scientific, and management, a 5 nd administrative and waste management se	9-/+		40.0% +	+/-50.9	60.0%	+/-50.9	80,417	+/-65,539		*	I	*
Professional, scientific, and technical servi 5	9-/+		40.0% +	+/-50.9	60.0%	+/-50.9	80,417	+/-65,539		**		**
Management of companies and enterprises 0	+/-1	- 60	*	**		**		**		**		**
		- 601	*	*		**	1	*		**		* *
Boundary Services, and health care and so 31	1 +/-1	9	45.2% +	+/-25.8	54.8%	+/-25.8	56,563	+/-80,514	126,875	+/-55,122 36,750	36,750	+/-12,210
Educational services	2-/+		57.1% +	+/-52.5	42.9%	+/-52.5	107,813	+/-175,805		**		**
Health care and social assistance 24		പ				+/-25.4	56,250	+/-82,206	163,333	+/-42,270	27037,500	+/-3,150
Arts, entertainment, and recreation, and acco 6 mmodation and food services.	Z-/+				50.0%	+/-50.0	33,750	+/-49,308		**	-	**
Arts, entertainment, and recreation	+/-1	- 601	*	*		**	1	**	-	**	-	**
Accommodation and food services 6					50.0%	+/-50.0	33,750	+/-49,308	1	**	-	**
ot public administration			%(0.0%	+/-100.0	52,813	+/-12,440	52,813	+/-12,440		**
Public administration 1	+/-3		+ %0.0	+/-100.0	100.0%	+/-100.0		**		**	-	**
PERCENT IMPUTED		-										
	6.5% (X)	8		(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

Esri Business Analyst

Financial Expenditures			
Arcadia township_3			
Arcadia township, MI (2610103320)			
Geography: County Subdivision			
Geography: County Subdivision			
	Spending	Average	
	Potential Index	Amount Spent	Total
Assets	Index	Spent	TOLAI
Assets Market Value			
	78	\$4,435.92	¢1.227.220
Checking Accounts			\$1,326,339
Savings Accounts	80	\$10,223.92	\$3,056,953
U.S. Savings Bonds	88	\$352.85	\$105,503
Stocks, Bonds & Mutual Funds	71	\$26,694.03	\$7,981,516
Annual Changes			
Checking Accounts	47	\$118.53	\$35,441
Savings Accounts	77	\$290.16	\$86,759
U.S. Savings Bonds	380	\$8.77	\$2,622
Earnings			
Dividends, Royalties, Estates, Trusts	82	\$785.64	\$234,906
Interest from Savings Accounts or Bonds	76	\$672.75	\$201,151
Retirement Plan Contributions	69	\$920.65	\$275,275
Liabilities			
Original Mortgage Amount	57	\$11,867.77	\$3,548,462
Vehicle Loan Amount 1	89	\$2,351.43	\$703,077
Amount Paid: Interest			
Home Mortgage	62	\$2,789.32	\$834,008
Lump Sum Home Equity Loan	71	\$89.33	\$26,711
New Car/Truck/Van Loan	76	\$153.80	\$45,987
Used Car/Truck/Van Loan	90	\$142.19	\$42,515
Amount Paid: Principal			
Home Mortgage	70	\$1,340.96	\$400,947
Lump Sum Home Equity Loan	72	\$116.80	\$34,923
New Car/Truck/Van Loan	76	\$816.67	\$244,185
Used Car/Truck/Van Loan	92	\$675.93	\$202,102
Checking Account and Banking Service	70	\$18.79	\$5,619
Charges Finance Charges, excluding Mortgage/Vehicle	71	\$168.74	\$50,453

Arcadia township_3				
Arcadia township, MI (2610103320)				
Geography: County Subdivision				
Data for all businesses in area		Arcadia township, MI		
		(261		
otal Businesses:		43		
otal Employees:		189		
otal Residential Population:		644		
mployee/Residential Population Ratio:		0.29		
	Businesses		Employees	
by NAICS Codes	Number	Percent	Number	Percent
Agriculture, Forestry, Fishing & Hunting	1	2.3%	1	0.5%
lining	0	0.0%	0	0.0%
Jtilities	0	0.0%	0	0.0%
Construction	7	16.3%	15	7.9%
<i>N</i> anufacturing	1	2.3%	3	1.6%
Vholesale Trade	0	0.0%	0	0.0%
Retail Trade	4	9.3%	14	7.4%
Notor Vehicle & Parts Dealers	1	2.3%	5	2.6%
urniture & Home Furnishings Stores	0	0.0%	0	0.0%
lectronics & Appliance Stores	0	0.0%	0	0.0%
Bidg Material & Garden Equipment & Supplies Dealers	0	0.0%	0	0.0%
ood & Beverage Stores	1	2.3%	2	1.1%
lealth & Personal Care Stores	0	0.0%	0	0.0%
Gasoline Stations	1	2.3%	5	2.6%
Clothing & Clothing Accessories Stores	0	0.0%	0	0.0%
Sport Goods, Hobby, Book, & Music Stores	0	0.0%	0	0.0%
General Merchandise Stores	0	0.0%	0	0.0%
Aiscellaneous Store Retailers Jonstore Retailers	1	2.3% 0.0%	2	1.1%
ransportation & Warehousing	1	2.3%	3	1.6%
nformation	1	2.3%	1	0.5%
inance & Insurance	0	0.0%	0	0.5%
Central Bank/Credit Intermediation & Related Activities	0	0.0%	0	0.0%
Securities, Commodity Contracts & Other Financial Investments &	0	0.0%	0	0.0%
nsurance Carriers & Related Activities; Funds, Trusts & Other Financial				
nsurance Carriers & Related Activities; Funds, Trusts & Other Financial	0	0.0%	0	0.0%
Real Estate, Rental & Leasing	1	2.3%	1	0.5%
Professional, Scientific & Tech Services	4	9.3%	8	4.2%
egal Services	1	2.3%	2	1.1%
Anagement of Companies & Enterprises	0	0.0%	0	0.0%
Administrative & Support & Waste Management & Remediation	1	2.3%	1	0.5%
ervices ducational Services	0	0.0%	0	0.0%
lealth Care & Social Assistance	3	7.0%	19	10.1%
Arts, Entertainment & Recreation	1	2.3%	3	1.6%
accommodation & Food Services	8	18.6%	75	39.7%
ccommodation	5	11.6%	12	6.3%
ood Services & Drinking Places	3	7.0%	63	33.3%
Other Services (except Public Administration)	5	11.6%	10	5.3%
utomotive Repair & Maintenance	2	4.7%	4	2.1%
Public Administration	3	7.0%	29	15.3%
Inclassified Establishments	2	4.7%	6	3.2%
atal	40	1000/	100	1000/
otal	43	100%	189	100%

LAKES TO LAND REGIONAL INITIATIVE | Ixvi