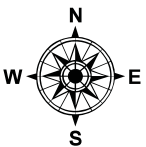


Locator Map

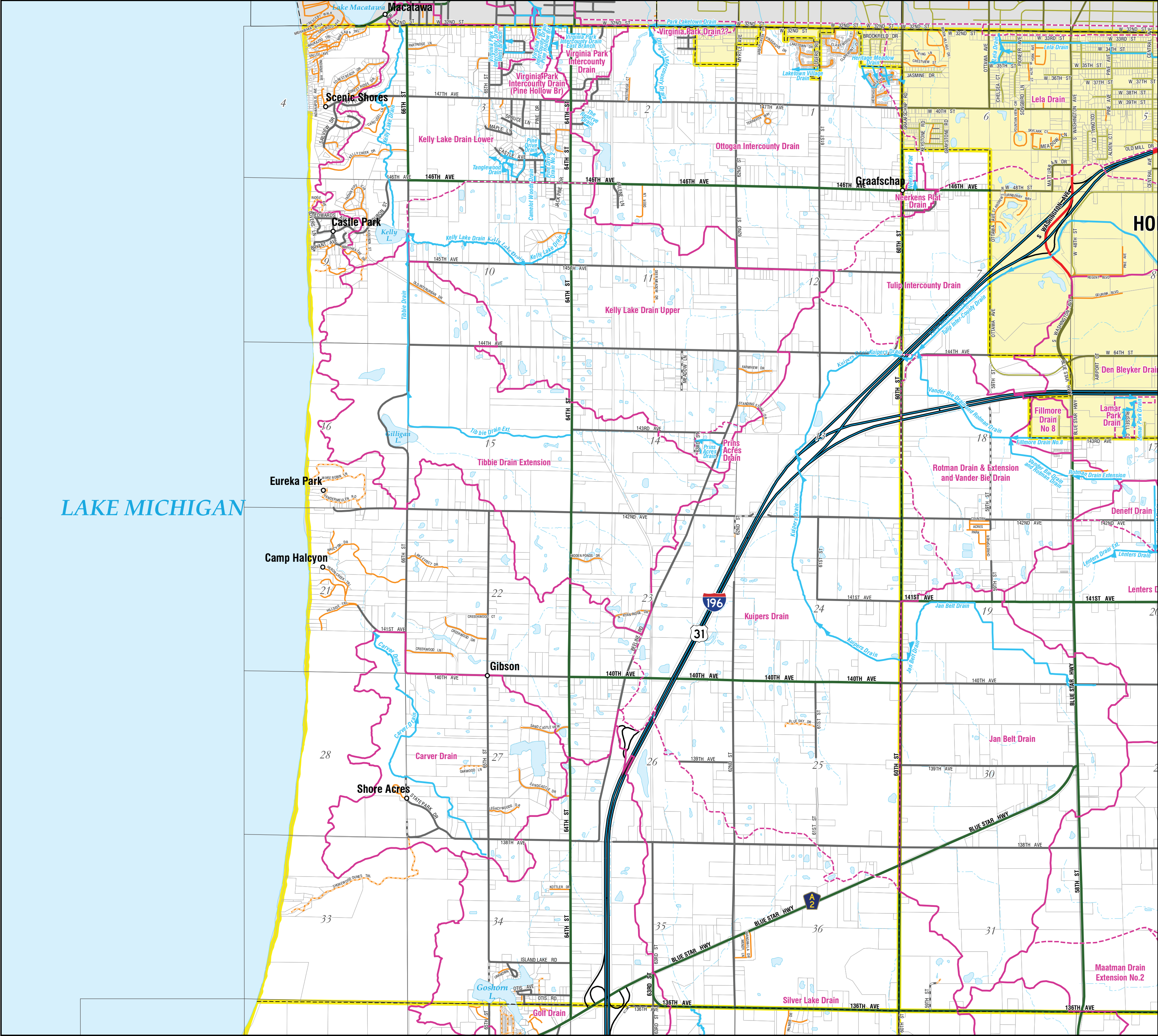
Map Legend

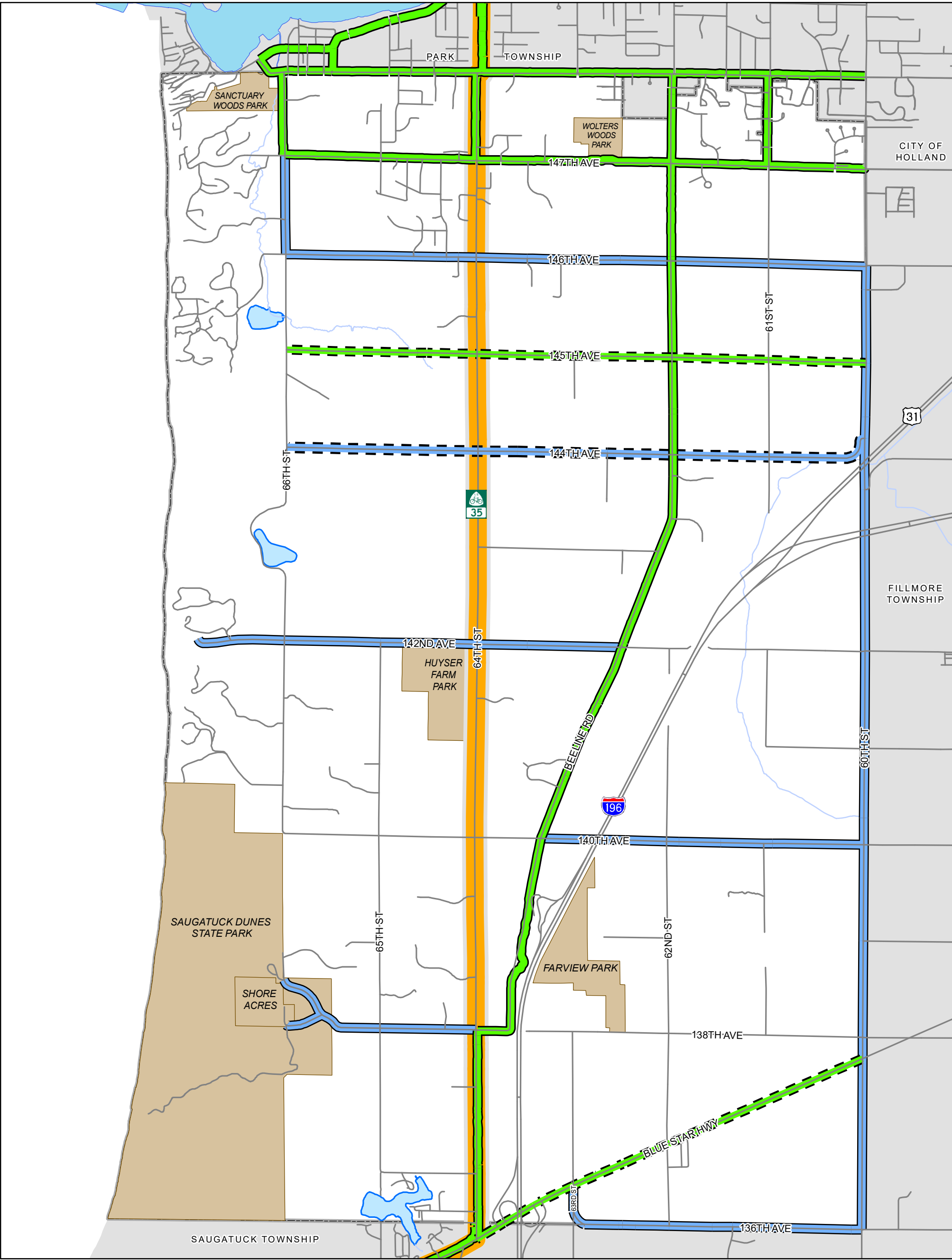
- County Drains
- County Drains (Area Features)
- Drainsheds - Verified
- Drainsheds - Unverified
- Lakes and Ponds
- Rivers and Streams
- Ditches
- Section Lines
- Parcel Lines
- Municipal Boundaries


0 0.45 0.9 Miles








Allegan County Land Information Services assumes no liability for results or conclusions drawn from the use of these data. Map created October 16, 2013.






SCALE: 1" = 2,500'

- LEGEND**
-  Existing Bike Lane
 -  Proposed Bike Lane
 -  Existing Shared Use Path
 -  Proposed Shared Use Path
 -  US Bike Route 35

LAKETOWN TOWNSHIP
Allegan County, MI
NON-MOTORIZED PATH PLAN
APRIL 2019
Prein&Newhof
2170289

Appendix B

Community Profile

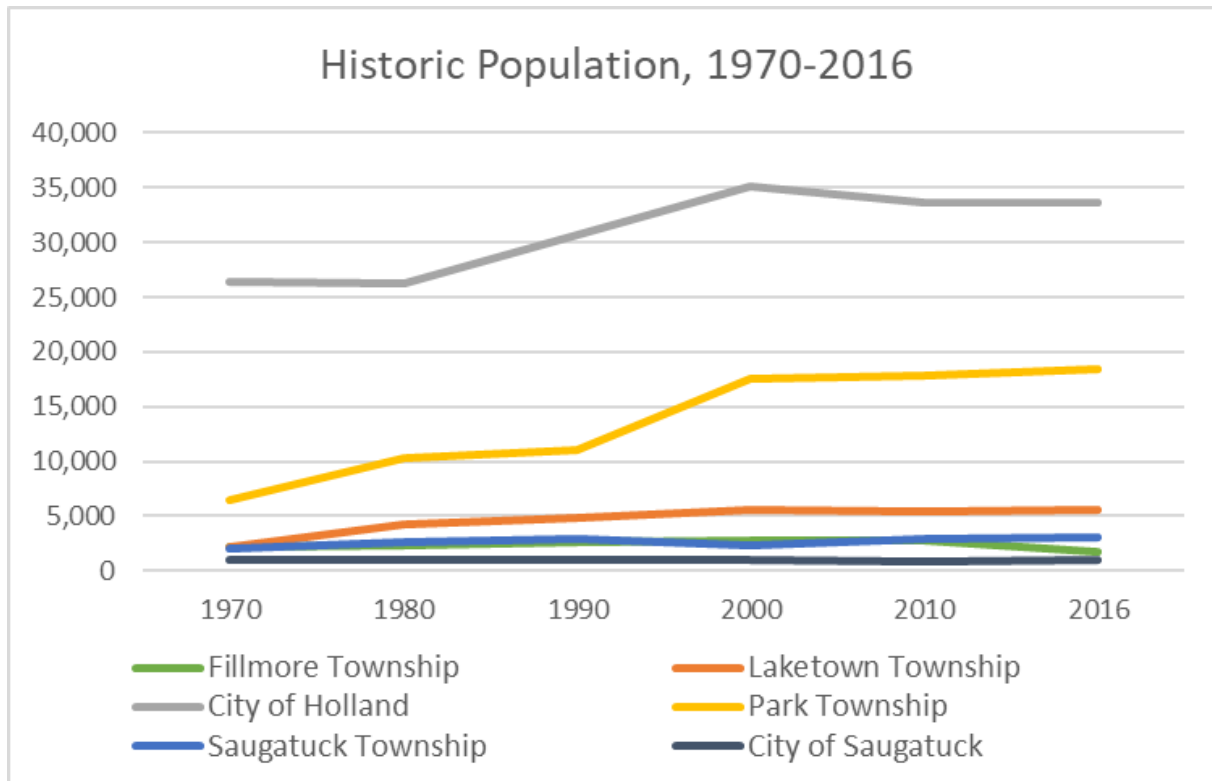
It is important to understand the physical, social, and economic characteristics of the Township in order to understand our past, as well as guide future policy decisions.

Population

Historic Population Trends

As noted in the table below, Laketown was just behind Park Township for highest overall population growth within the region between 1970 and 2016, with a growth rate of approximately 160%. It should be noted that Park Township had a substantially higher population initially in 1970, a trend which has only increased as their population approaches 20,000 residents.

Historic Population- Laketown Township & Surrounding Communities, 1970-2016							
Community	1970	1980	1990	2000	2010	2016	% Change 1970-2016
Laketown Township	2,175	4,332	4,888	5,561	5,505	5,647	159.6%
Fillmore Township	2,126	2,307	2,710	2,756	2,723	2,712	21.7%
City of Holland	26,479	26,281	30,745	35,048	33,708	33,581	26.80%
Park Township	6,461	10,354	11,060	17,579	17,802	18,440	185.4%
Saugatuck Township	2,067	2,701	2,916	2,376	2,944	3,067	48.4%
City of Saugatuck	1,022	1,079	954	1,065	915	942	-7.8%
Allegan County	66,575	81,555	90,509	105,665	111,408	113,666	70.7%
Ottawa County	128,181	157,174	187,768	238,314	263,801	276,583	115.8%
Source: US Census 1970-2010, American Community Survey 5-Year Estimates, 2016							



Source: U.S. Census, 1970-2010; American Community Survey 5-Year Estimates, 2016

Population Projections

Population projections were prepared by the West Michigan Regional Planning Commission from 2010 Census data. Laketown's population is expected to grow 16.8% between 2016 and 2030, while it only grew 1.6% between 2000 and 2016. Saugatuck Township and Park Township are anticipated to have even higher rates of population increase, while Allegan County as a whole is projected to have a 19.2% increase in population from 2016-2030. It should be noted that neighboring Ottawa County is currently the fastest growing county in Michigan, growing 8.6% in population between 2016 and 2017, according to the U.S. Census. So while population growth has slowed over recent years, the population of Laketown Township is anticipated to continue increasing.

POPULATION PROJECTIONS, 2020-2030					
Community	2020	2025	2030	% Change 2016-2030	% Change 2000-2016
<i>Laketown Township</i>	<i>6,051</i>	<i>6,325</i>	<i>6,598</i>	<i>16.8%</i>	<i>1.6%</i>
Fillmore Township	2,732	2,757	2,783	2.6%	-1.6%
City of Holland	34,083	34,598	35,114	3.8%	-0.4%
Park Township	20,604	22,005	23,406	26.9%	4.9%
Saugatuck Township	3,416	3,652	3,889	26.8%	-14.6%
City of Saugatuck	871	844	817	-13.3%	-11.6%
Allegan County	123,454	129,476	135,498	19.2%	7.6%
Ottawa County	316,671	343,106	369,541	33.6%	16.1%
Source: West Michigan Regional Planning Commission, Percentage and Numeric Based Trend Projections					

Current Laketown Residents

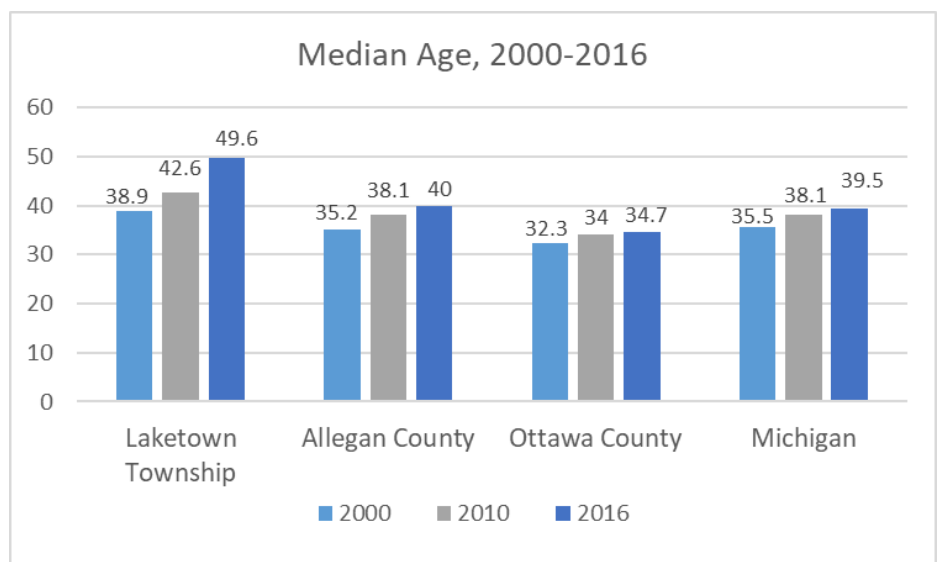
The information below is intended to be utilized as a generalized descriptor of current Laketown Township residents, based upon current Census data.

Age

The age of Township residents provides an indication of economic, transportation, recreational and community needs for all age groups. Sensitive community planning can help Laketown maintain its high quality of life, while providing the opportunity for housing and services which benefit every segment of the population.

LAKETOWN AGE DISTRIBUTION						
Age Groups	1990	% of 1990 Total Pop.	2000	% of 2000 Total Pop.	2010	% of 2010 Total Pop.
Under 5	348	7.1%	314	5.6%	246	4.5%
5-14	773	15.8%	892	16.0%	714	13.0%
15-24	675	13.8%	682	12.3%	621	11.3%
25-34	967	19.8%	544	9.8%	419	7.6%
35-44	947	19.4%	994	17.9%	584	10.6%
45-54	540	11.1%	937	16.8%	1,058	19.2%
55-64	286	5.9%	572	10.3%	887	16.1%
65 and over	352	7.2%	626	11.3%	976	17.7%
Total	4,888	100.0%	5,561	100.0%	5,505	100.0%
Source: 1991 Laketown Township Master Plan; U.S. Census, 2000, 2010						

In 1990, nearly 69% of the population was between the ages of 5 and 44, the two largest age groups being 25-34 and 35-44 years old. In 2000, these two age cohorts had progressed to being between 35 and 54 years old, comprising nearly 35% of Laketown's population. By 2016, 53% of the Township's population was 45 years or older. The median age in Laketown Township in 2016 was 49.6, which is significantly higher than many of the surrounding communities. This population age progression indicates that the population of Laketown, in alignment with the area as a whole, is growing older, and adequate provisions need



Source: U.S. Census, 2000; American Community Survey 5-Year Estimates, 2010, 2016

to be in place to plan for an older population.

Race

In 2016, 96.5% of the Laketown Township population identified their race as “White Alone”. The next highest race identified was “Asian Alone”, at 1.0% of the population. While this figure is comparable to many of the surrounding communities, it is important to be aware of and consider when analyzing the composition of the Township’s residents.

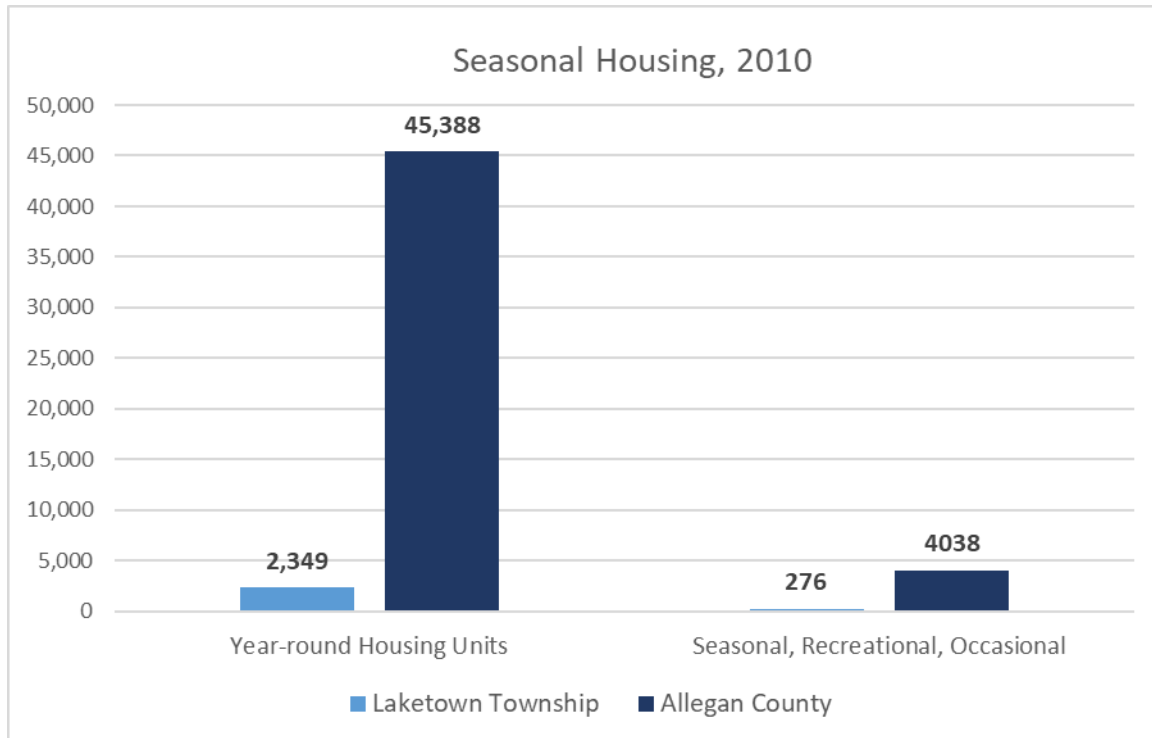
Educational Attainment

EDUCATIONAL ATTAINMENT, AGE 25+			
LAKETOWN TOWNSHIP	2000	2010	2016
Less than high school graduate	2.8%	1.1%	2.6%
9 th to 12 th grade, no diploma	6.0%	4.6%	3.3%
High school graduate (includes equivalency)	27.8%	24.9%	25.9%
Some college, no degree	24.8%	25.6%	17.7%
Associate's degree	7.7%	7.5%	9.2%
Bachelor's degree	21.2%	21.7%	25.2%
Graduate or professional degree	9.2%	14.6%	16.1%
ALLEGAN COUNTY			
Less than high school graduate	6.0%	4.2%	3.3%
9 th to 12 th grade, no diploma	11.7%	6.9%	6.6%
High school graduate (includes equivalency)	39.1%	39.0%	37.9%
Some college, no degree	21.0%	22.6%	22.0%
Associate's degree	6.3%	7.9%	8.8%
Bachelor's degree	10.8%	13.3%	14.4%
Graduate or professional degree	5.0%	6.1%	7.0%
STATE OF MICHIGAN			
Less than high school graduate	4.7%	3.5%	3.1%
9 th to 12 th grade, no diploma	11.9%	8.4%	7.0%
High school graduate (includes equivalency)	31.3%	31.5%	29.6%
Some college, no degree	23.3%	23.4%	23.8%
Associate's degree	7.0%	8.1%	9.1%
Bachelor's degree	13.7%	15.5%	16.7%
Graduate or professional degree	8.1%	9.6%	10.1%
Source: U.S. Census, 2000; American Community Survey 5-Year Estimates, 2010, 2016			

Educational attainment can be an important representation of the population of a community. In Laketown Township, the largest proportion of residents (25.9%) have a high school diploma, which includes equivalency degrees. The next largest proportion of residents (25.2%) have a bachelor's degree. As is evidenced by the chart above, educational attainment is increasing in Laketown Township, as the percentage of residents with Associate's degrees or higher has been increasing since 2000. Further, post-secondary educational attainment in Laketown Township is higher than that of both Allegan County and the State of Michigan. These are important statistics when considering the earning potential of a community, as well as the value placed on educational services offered in a community.

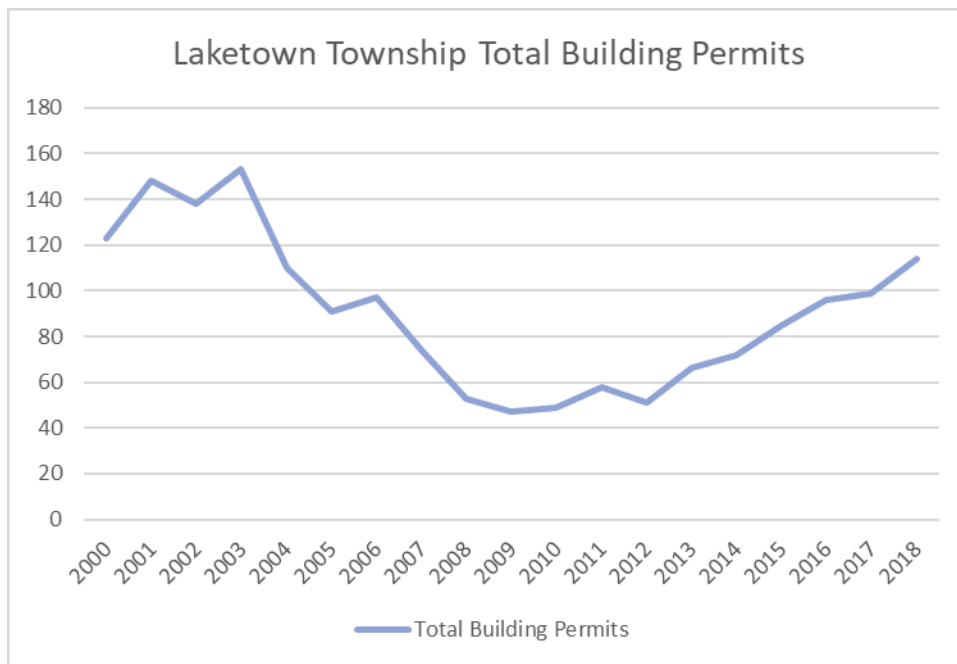
Housing

In 2010, year round housing units accounted for 89.5% of the total housing stock in Laketown Township, versus 91.8% for Allegan County, indicating a stable, full time population for both the Township and county. However, these figures also indicate that there is a sizable seasonal population in Laketown Township, which has impacts on the economy as well as future land use planning.

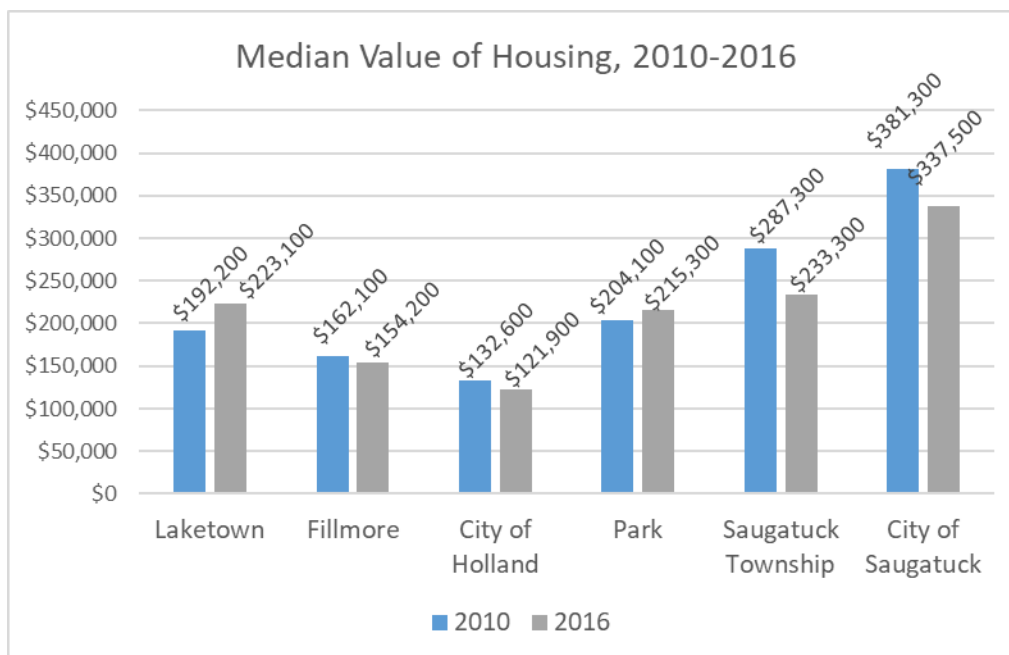


Source: U.S. Census, 2010

CONSTRUCTION ACTIVITY FOR LAKETOWN TOWNSHIP					
Year	Total Building Permits	Single Family	Duplex	Condo Units	Other**
2000	123	31	0	11	88
2001	148	35	1	9	107
2002	138	31	0	14	100
2003	153	32	1	14	114
2004	110	25	*	15	70
2005	91	20	0	0	71
2006	97	19	0	0	78
2007	74	18	0	0	56
2008	53	14	0	0	39
2009	47	13	0	0	34
2010	49	3	0	0	46
2011	58	9	0	0	49
2012	51	15	0	0	36
2013	66	22	0	0	44
2014	72	20	0	0	52
2015	85	26	0	0	59
2016	96	23	*	3	70
2017	99	21	*	9	69
2018	114	26	0	10	78
Total	1,786	403	2	85	1,260
Source: Laketown Township, 2018 General Note: This information is listed as provided by Laketown Township. The Township does not necessarily track building permits by such defined categories, which is why the Total Building Permits column does not equal a summation of the other four (4) columns. As an example, duplex permits issued are included in the condo unit figures for the noted (*) years. ** "Other" includes permits issued for additions, basement finishing, enclosing decks or porches, garages/pole barns, pools, demolitions, and remodels.					

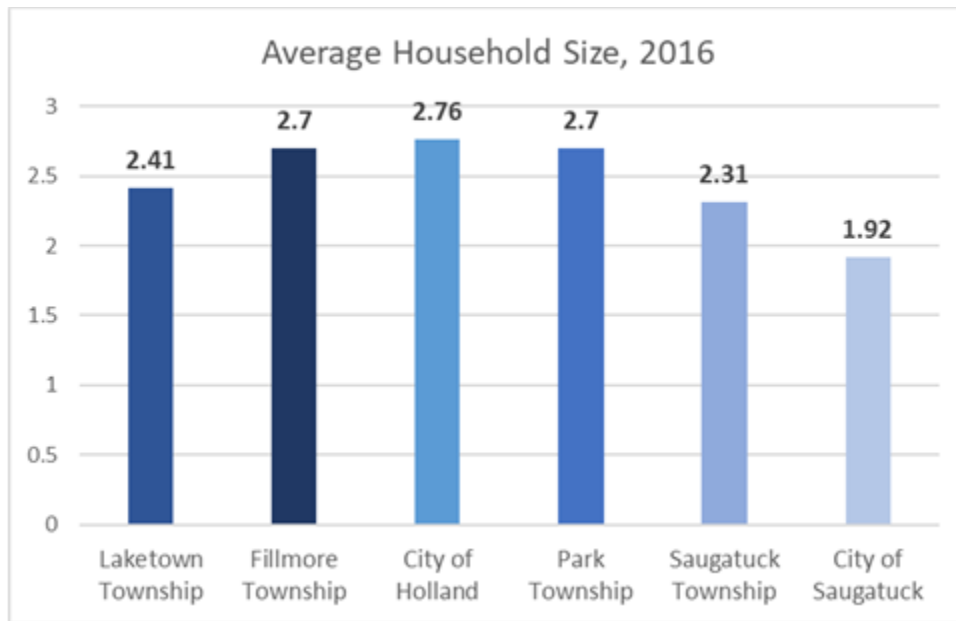


Recent construction activity in Laketown Township peaked in 2003, then dropped until modest increases began in 2010, a trend that existed in many areas during and following the Great Recession. The total number of permits issued continues to increase though, as both single-family residential building permits and “other” building permits (which includes commercial uses) are on the rise.



Source: U.S. Census, 2010; American Community Survey 5-Year Estimates, 2016

The housing values of Laketown and other 'lakeside' communities illustrates the impact that Lake Michigan property values can have on median housing values. From 2010-2016, the median value of housing in Fillmore Township, the City of Holland, Saugatuck Township, and the City of Saugatuck decreased. In Laketown during that same time period, the median value of housing increased nearly \$31,000; in neighboring Park Township the median value of housing increased over \$10,000. This trend can be expected to continue as lakefront properties convert seasonal homes into primary residential dwelling units, and a shrinking supply drives prices higher.



Source: American Community Survey 5-Year Estimates, 2016

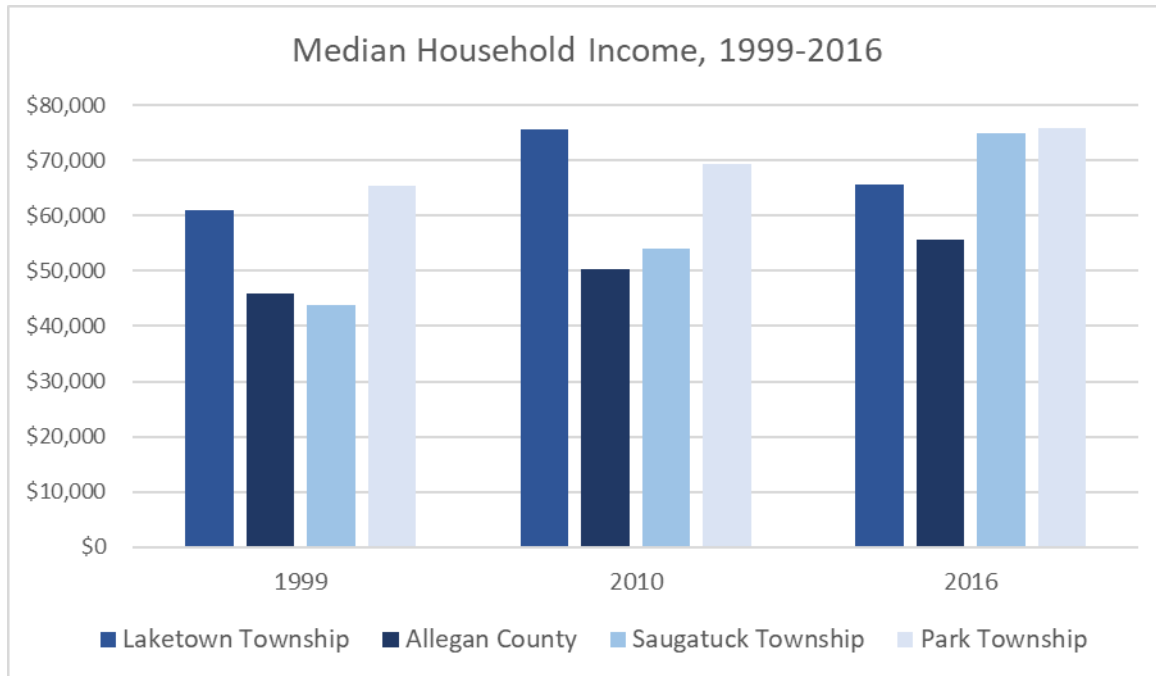
Laketown, Saugatuck Township, and the City of Saugatuck have distinctively smaller household sizes than neighboring communities. Laketown's average household size has been steadily decreasing since 1980, from 3.13 persons to the current occupancy rate of 2.41 persons per household. Saugatuck City and Township are the only neighboring communities with a smaller average household size of 2.31 persons and 1.92 persons, respectively. This figure also reflects the current trend of an aging population, with shrinking household sizes as Township residents grow older in place.

The data presented can be utilized to complete a projection of future housing needs. According to the aforementioned population projections, the population of Laketown Township is projected to reach 6,598 people in 2030. Utilizing the current average household size of 2.41 people per household, that would indicate a projection of 2,737 housing units to support the population projected for 2030. In 2010, there were 2,349 year-round housing units in the Township. As such, approximately 390 additional housing units would need to be constructed in order to support the population as it is currently anticipated to grow.

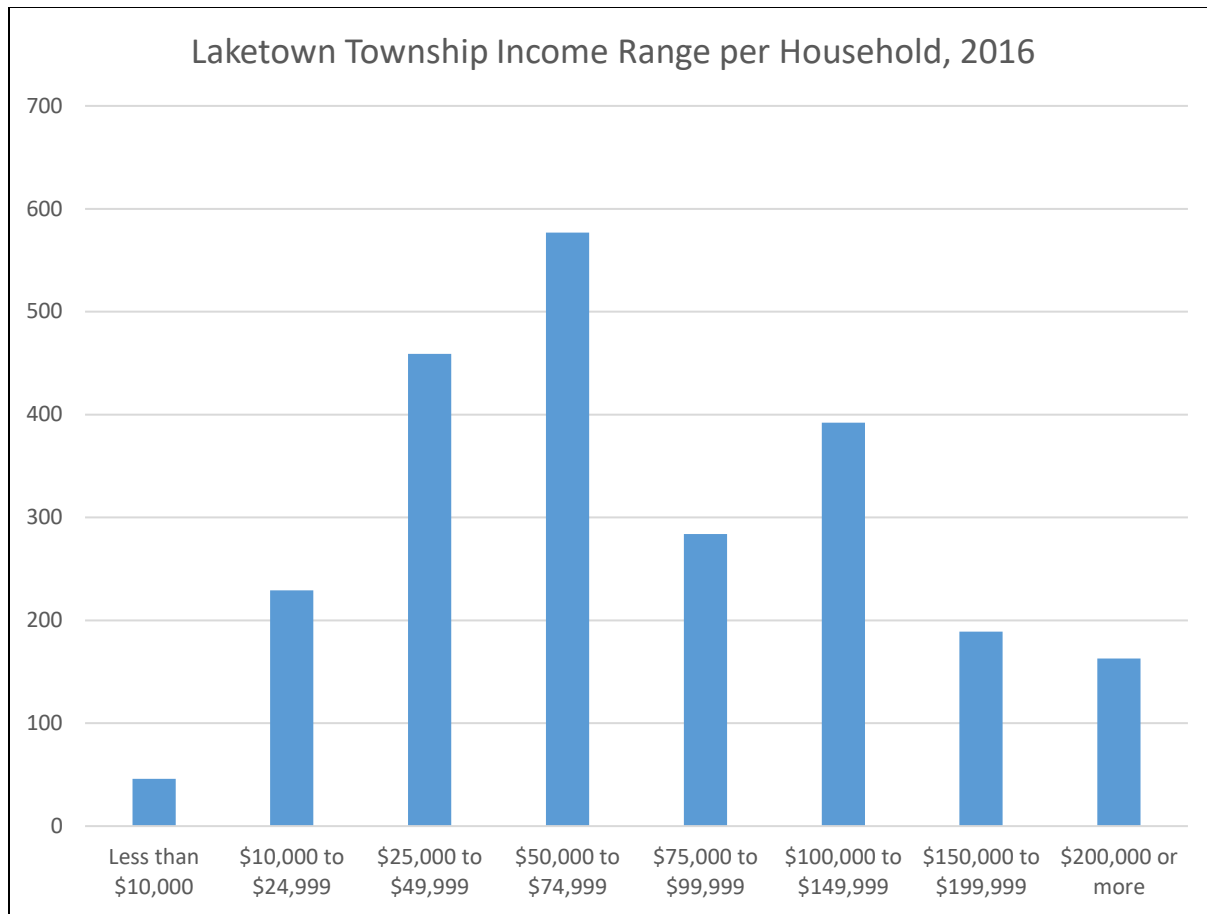
Economy

Income

Median incomes across the entire area have seen a steady increase since 1999, with the relative rank among townships remaining the same. Park Township retained the highest median income in 2016; however, Laketown had the highest area median income in 2010 at \$75,667. In 2016, that figure had decreased to \$65,642.



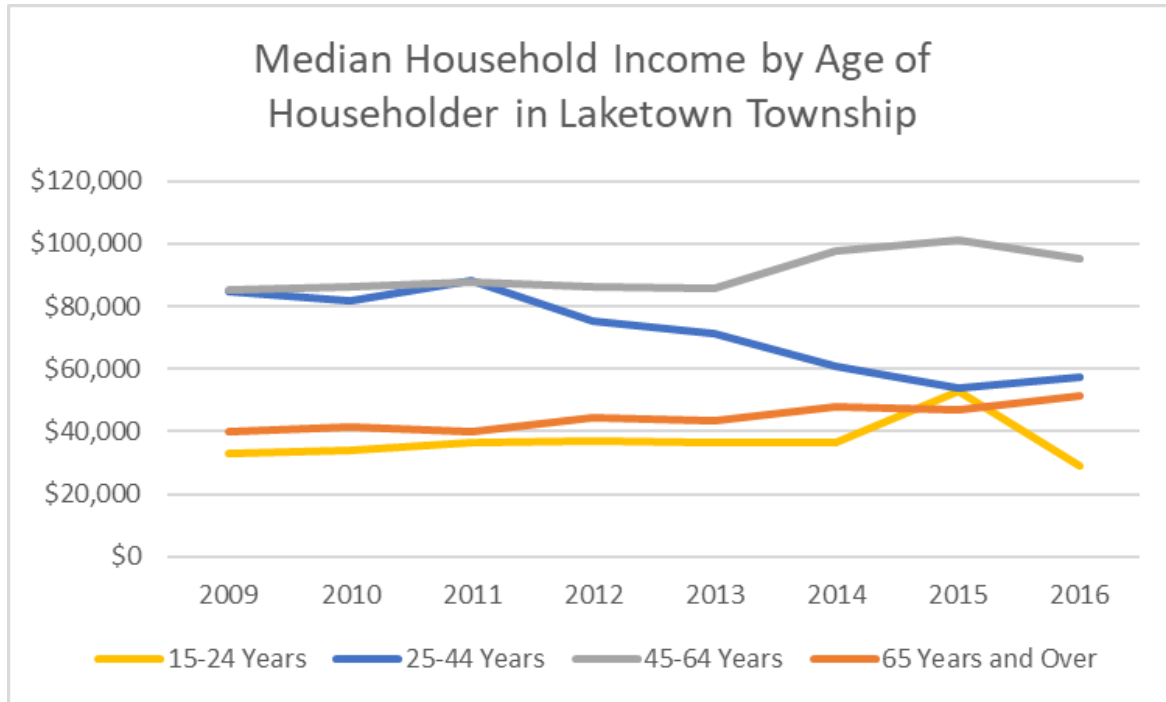
Source: U.S. Census, 2000, 2010; American Community Survey 5-Year Estimates, 2016



Source: American Community Survey 5-Year Estimates, 2016

In considering the income range per household, the greatest percentage of households in Laketown Township earned between \$50,000 and \$74,999 in 2016. Approximately 31.8% of the total population had median household incomes of \$100,000 or more though. As median incomes continue to rank higher than surrounding regions, Laketown can expect more investment in their community related to housing and other residential related services.

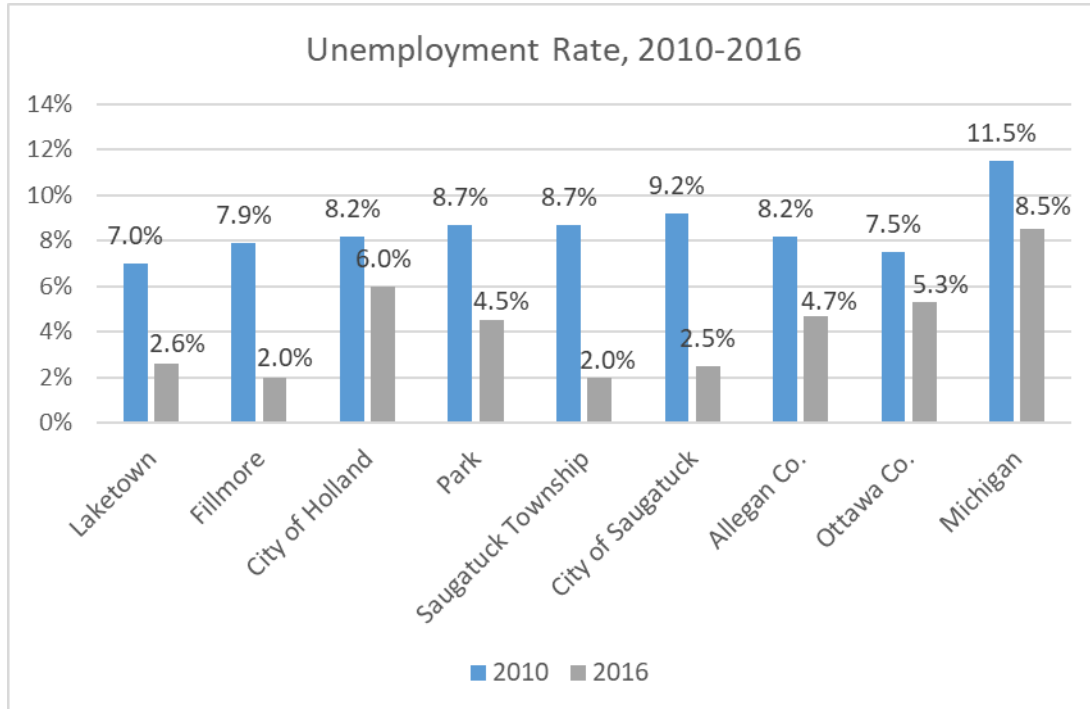
MEDIAN HOUSEHOLD INCOME BY AGE OF HOUSEHOLDER								
Age	2009	2010	2011	2012	2013	2014	2015	2016
15-24	\$33,235	\$33,843	\$36,250	\$37,019	\$36,477	Not Available	\$52,656	\$28,889
25-44	\$84,773	\$81,833	\$88,409	\$75,114	\$71,250	\$60,625	\$54,076	\$57,153
45-64	\$85,234	\$86,169	\$87,619	\$86,196	\$85,954	\$97,869	\$100,994	\$94,958
65 and Over	\$40,000	\$41,413	\$39,757	\$44,417	\$43,250	\$47,958	\$46,758	\$51,549



Source: American Community Survey 5-Year Estimates, 2009-2016

An additional consideration of income in Laketown Township is Median Household Income by Age of Householder. The table and reflecting graph above indicate that income by age is relatively steady, except for the 25-44 age cohort whose income decreased approximately \$27,500 between 2009 and 2016, perhaps an indication of those generations most affected by the Great Recession. It is also important to emphasize that the 46-64 and 65 and older cohorts have increased their median income over the past ten (10 years), which is prominent to note due to the aging population and those aging in place.

Employment



Source: American Community Survey 5-Year Estimates, 2010, 2016

The unemployment rate in Laketown Township decreased from 7.0% in 2010 to 2.6% in 2016. While this is a notable decline, it was mirrored in many local communities and counties, as the area continues to recover from the Great Recession.

INDUSTRY OF LAKETOWN TOWNSHIP WORKERS		
	2010	2016
Agriculture, Forestry, Fishing and Hunting, Mining	1.0%	2.7%
Construction	4.6%	4.6%
Manufacturing	22.5%	22.2%
Wholesale Trade	4.0%	2.8%
Retail Trade	7.5%	9.9%
Transportation and Warehousing, Utilities	4.9%	2.9%
Information	0.3%	1.2%
Finance and Insurance, Real Estate	2.4%	3.4%
Professional, Scientific, Management	7.9%	9.5%
Education, Health Care, Social Assistance	23.8%	25.5%
Arts, Entertainment, Recreation, Accommodation, Food Services	9.8%	6.7%
Other Services	8.1%	6.8%
Public Administration	3.0%	1.8%

Source: American Community Survey 5-Year Estimates, 2010, 2016

The data above compares the Industry of Laketown residents from 2010 to 2016. It is important to note that these figures represent employees that live in Laketown Township, but may not necessarily work in the Township. In both 2010 and 2016, the highest proportion of Laketown residents were employed in the “Education, Health Care, and Social Assistance” industries. The next highest proportion of residents were employed in the “Manufacturing” industry. The third highest proportion of residents were employed in the “Arts, Entertainment, Recreation, Accommodation, and Food Services” industry, which is important to note due to Laketown Township’s location as a lakeshore community. The smallest industry represented in 2010 and 2016 was the “Information” industry.

COMMUTER PATTERNS IN LAKETOWN TOWNSHIP 2000-2016				
Laketown Township	2000		2016	
	Number	%	Number	%
Less than 5 minutes	58	2.0%	47	1.7%
5 to 9 minutes	355	12.7%	319	11.6%
10 to 14 minutes	688	24.6%	654	23.7%
15 to 19 minutes	736	26.3%	700	25.4%
20 to 29 minutes	638	22.8%	541	19.6%
30 to 44 minutes	121	4.3%	313	11.4%
45 to 59 minutes	109	4.0%	93	3.4%
60 or more minutes	93	3.3%	87	3.2%
Total	2,798	100.0%	2,754	100.0%

Source: U.S. Census, 2000; American Community Survey 5-Year Estimates, 2016

When analyzing employment in an area, it is also pertinent to consider commuting patterns of residents, as the length and ease of a commute does factor heavily into a person's decision where to locate. With limited means of public transportation available in Laketown Township, reliance on personal automobiles is the primary mode of carrying people throughout the area. In 2016, 62.4% of the working population in Laketown Township spent not more than 20 minutes commuting to work, which is just slightly less than the 2000 Census figure of 65.6% of the working population commuting 20 minutes or less.

Appendix C

Master Plan Workshop Summary & Results

Laketown Township – Master Plan Update 2018

Public Input Workshop Summary

As part of the master plan update process, three separate public input workshops were held at the Laketown Township Hall. Each public workshop contained a specific focus area, and attendees provided input in various different ways. Workshops were held as follows:

Workshop Date	Focus Area	Attendees
June 25, 2018	Northern Laketown	66
July 12, 2018	Blue Star Highway	20
July 23, 2018	Agricultural Land	27

During each public workshop, input was provided through interactive surveys, SWOT (Strength, Weaknesses, Opportunities, Threats) analysis, visual preference surveys, and comment cards. Comments were also received by e-mail, letter, comment card, and etcetera after the public workshops. A complete report of the results of the visual preference surveys and public input that was received is following this Workshop Summary. The following provides a summary of the comments and feedback that was received during and after the public workshops.

What Attracted You to Live in Laketown Township?

The resounding theme from each of the workshops is that residents would like to maintain the rural character of Laketown Township. This was evidenced from the beginning when attendees were asked what attracted them to live in Laketown Township. Approximately 45 percent of the attendees responded that rural character is what attracted them to live here. The following table provides a summary of the responses:

What attracted you to live in Laketown?	Lake	Tax Rate	Rural Character	Location	Amenities
	26%	2%	45%	16%	11%

Key takeaway: Accommodating growth while maintaining rural character is a challenge faced by many growing communities. It will be important to consider preservation of rural character when making development decisions.

Visual Preference Surveys

Each workshop was provided a photographic set of various characteristics that could be physically found within the respective focus area. Participants were asked to rank each of the photographs on a scale of one (1) to five (5) to capture their like or dislike of the visual preference. Below is a summary of the visual findings for each workshop:

Northern Laketown

- While large lots were supported, the visual preference revealed even greater support for clustering of residential development
- Traditional suburban home design was largely supported
- Home occupations were not preferred by participants

Blue Star Highway

- Significant support exists for smaller scale development of buildings and related signage
- Preservation of trees along the corridor received significant support
- A mixture of higher quality (not only metal) building materials were supported
- Use of building accents and other physical character elements were supported
- Opportunity to require pathways with development were significantly supported

Agricultural Lands

- While responses were mixed from two (2) different large lot versus clustering of development illustrations, the common theme that resulted was protecting and buffering farmland from development
- Support was provided for buildings containing higher quality material and/or design that did not include basic pole barn metal
- Support for pathways was significant

Key findings: Participants appear to acknowledge that development is a realistic component of the community and the means to control that development is an important process to be determined by Laketown Township. Support exists for development tools that protect farmland and rural character, encourage pedestrian pathway development, and ensure high quality building and site design within the entire township but particularly along the Blue Star Highway corridor.

SWOT Analyses (Strengths, Weaknesses, Opportunities, Threats)

A SWOT analysis of each specific focus area was completed during each workshop. Attendees were divided into small groups and were asked to discuss the strengths, weaknesses, opportunities, and threats of each focus area. After the analysis was completed, the major themes were presented to the attendees and attendees were asked to prioritize these themes. Below is a summary of the prioritization of the major themes for each workshop:

Northern Laketown

- Strengths: Rural atmosphere/character was identified as the top strength. Forty-two percent (42%) of the attendees selected rural atmosphere/character as the top strength.
- Weaknesses: Overuse of planned unit developments (PUD) and sprawl of residential development were identified as primary weaknesses. Seventy-two percent (72%) of the respondents found that these two categories were the primary weaknesses in Northern Laketown Township.
- Opportunities: Preservation of rural areas and greenspaces was identified as the primary opportunity. Seventy-one percent (71%) of the respondents prioritized this a top opportunity for Northern Laketown Township.

- Threats: Loss of rural character, over-development, and density of residential development were determined to be the top threats to Northern Laketown Township. Eight-nine percent (89%) of the respondents identified these threats as being major concerns.

Key Findings: Preserving/maintain rural character and limiting residential density are the major themes that were presented by attendees. With that in mind, a careful review of the allowable densities and planned unit development (PUD) regulations should be considered.

Blue Star Highway

- Strengths: Rural character and easy access were identified as the top strengths of Blue Star Highway. Fifty percent (50%) of respondents identified rural character as the top strength and twenty-three percent (23%) identified easy access as the top strength.
- Weaknesses: Public utility expansions (lack of) and burden of zoning approval process were identified as the top weaknesses in this area. Thirty-eight percent (38%) of the respondents found that public utility expansions were the top weakness, and twenty-two percent (22%) of the respondents found that the zoning approval process was burdensome.
- Opportunities: Appealing landscaping, expansion of public utilities, location for commercial development, and creating a cohesive design were identified as the top opportunities on Blue Star Highway. Respondents were split on which themes were a top priority with appealing landscaping being noted by twenty-nine percent (29%) of respondents as a top opportunity.
- Threats: Loss of rural character and potential nuisances (noise, light, etc.) from commercial and industrial businesses were considered to be the primary threats facing the Blue Star Highway. Thirty-six percent (36%) of respondents identified loss of rural character as a major threat and twenty-five percent (25%) identified potential nuisances as a major threat.

Key Findings: The existing rural character of the Blue Star Highway corridor is found to be a major strength. Many respondents also found that Blue Star Highway is the appropriate place for commercial and industrial land uses. Creating landscape requirements that will provide a visual buffer along the corridor and between non-commercial/industrial land uses should be reviewed so as to limit potential nuisances. Also, as much of the corridor is undeveloped, considering requirements to preserve existing vegetation along the corridor should be considered prior to development taking place. In regards to public utilities, respondents found this to be both a weakness and an opportunity. Public utilities, particularly water and sewer utilities, could be funded by perspective developers/businesses.

Agricultural Lands

- Strengths: Rural character and lot size controls were identified as the top strengths. Thirty-nine percent (39%) of the attendees selected rural character as the top strength. Twenty-four percent (24%) and twenty-one percent (21%) identified minimum residential lot size protection and low density, respectively, as top strengths.
- Weaknesses: Residential pressures was identified as the primary weakness. Sixty-five percent (65%) of the respondents identified encroachment by residential development as the biggest weakness.
- Opportunities: Preservation programs were identified as the primary opportunity. Sixty-three percent (63%) of the respondents identified PA 116 and Purchase of Development Rights (PDR) as well as Transfer of Development Rights programs as the primary opportunity.

- Threats: Residential encroachment was identified as the primary weakness. Fifty-one percent (51%) of the respondents identified encroachment by residential development as the biggest threat.

Key Findings: Protecting rural character and limiting residential development are the major themes that were presented by attendees. While preservation programs are valuable to achieving both of these themes, challenges exist to encourage participation in PA 116, which is operated by the State of Michigan, and to participate in a PDR program since it is expensive to operate and typically privately funded.

Laketown Township – Master Plan Update 2018

Public Input Workshop Results

Overview

The following information was obtained from public input sessions during three separate public workshops held at the Laketown Township Hall. Each public workshop had a specific focus area, and attendees provided input in various different ways. Workshops were held as follows:

Workshop Date	Focus Area	Attendees
June 25, 2018	Northern Laketown	66
July 12, 2018	Blue Star Highway	20
July 23, 2018	Agricultural Land	27

The following report is categorized in the following four (4) parts:

Part 1 – Mentimeter Results

Mentimeter is a third-party interactive survey tool. Attendees were encouraged to bring their WI-FI or LTE capable devices and participate in two separate interactive surveys during each workshop. The first Mentimeter survey was designed to obtain basic information and allow users to get acquainted with Mentimeter. The second Mentimeter survey provided an opportunity for attendees to prioritize input obtained through the SWOT analysis (see description below). Mentimeter results were provided to attendees in real-time.

Part 2 – Visual Preference Survey Results

A separate visual preference survey was designed for each workshop with graphics and questions related to the focus area of each workshop. The completed visual preferences surveys can be found in Appendix. General comments were also provided

Part 3 – SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)

During each workshop attendees participated in a SWOT analysis within small groups. Attendees provided input regarding the strengths, weaknesses, opportunities, and threats related to each focus area (Northern Laketown, Blue Star Highway, agricultural land). The most common themes between groups of the SWOT analysis were prioritized using Mentimeter (see description above).

Part 4 – Comments

General comments were received in a variety of ways. Comment cards, comment sheets, and maps were provided to attendees to allow for additional input on the Master Plan. Also, comments were obtained by e-mail and written letters.

Part 1 – Mentimeter Results

Northern Laketown Workshop – June 25, 2018

Introduction Survey Results

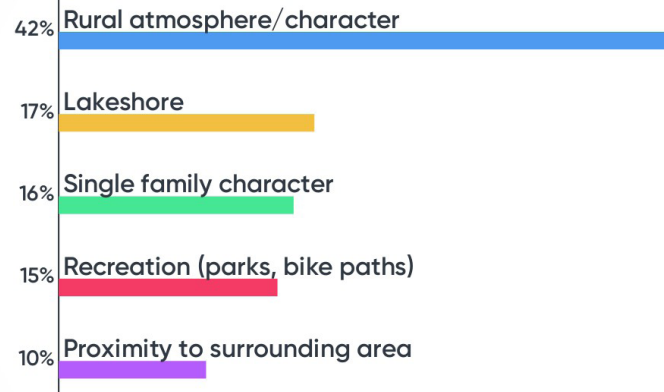
Questions	Yes	No	Somewhat	Total
Have you ever used Mentimeter?	0	34	n/a	34
Have you participated in a public workshop before?	16	17	n/a	33
Do you the purpose of a zoning ordinance?	29	1	6	36
Do you know the purpose of a master plan?	31	2	4	37
Do you know how a zoning ordinance and master plan work together?	15	4	18	37

What attracted you to live in Laketown?	Lake	Tax Rate	Rural Character	Location	Amenities
	19	2	28	12	11

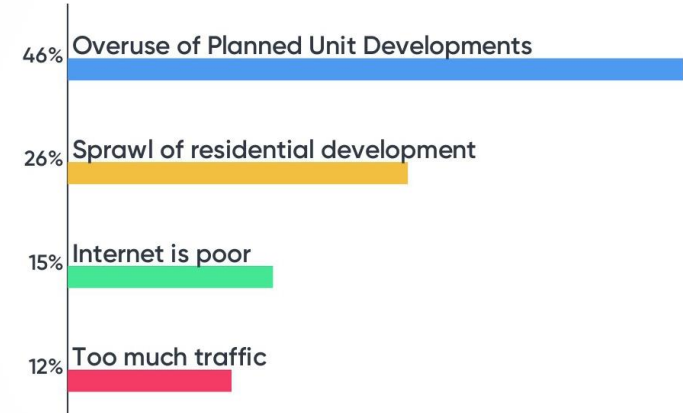
What do you expect from tonight? (rate importance 1-5)	Average Responses
To learn	4.30
To contribute	3.38
To make difference	3.31
To be heard	3.24
Good coffee	1.94

Prioritization Survey Results

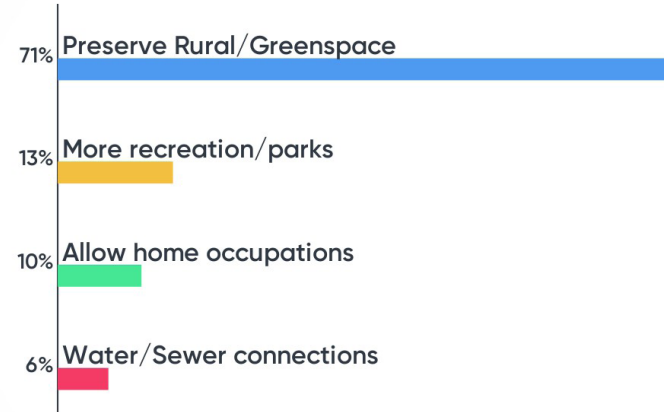
Strengths



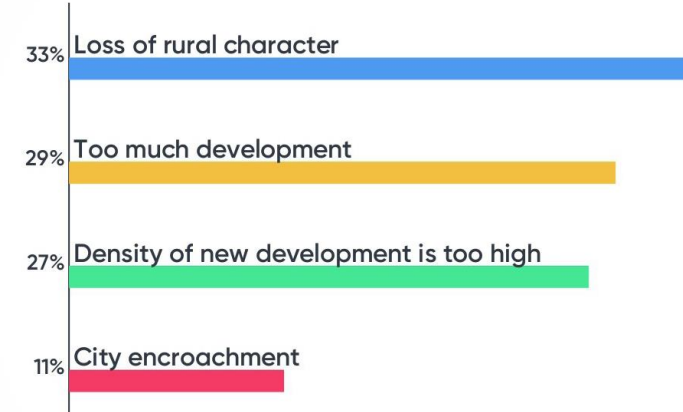
Weaknesses



Opportunities



Threats



How would you describe tonight?



Blue Star Highway Workshop – July 12, 2018

Introduction Survey Results

Questions	Yes	No	Somewhat	Total
Have you ever used Mentimeter?	3	11	n/a	14
Have you participated in a public workshop before?	10	5	n/a	15
Do you the purpose of a zoning ordinance?	13	0	2	15
Do you know the purpose of a master plan?	13	0	1	14
Do you know how a zoning ordinance and master plan work together?	9	1	5	15

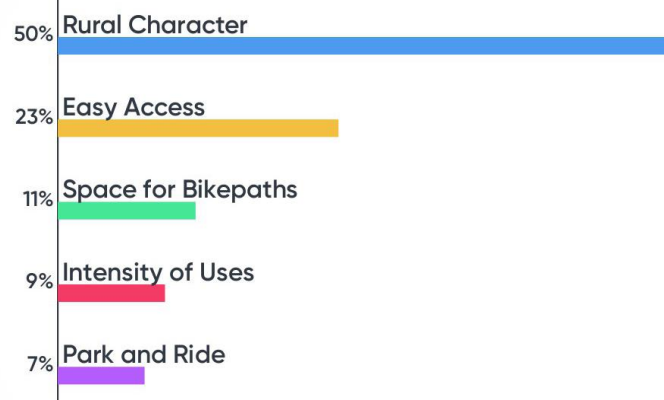
What attracted you to live in Laketown?	Lake	Tax Rate	Rural Character	Location	Amenities
	5	1	11	4	1

Aesthetic Survey	Attractive Buildings	Big Signs	Nice Landscaping	Easy Access	Rural Character	Other Development	None of These
What do you notice when you travel the Blue Star in Laketown?	0	1	1	4	11	0	1
What do you notice when you travel the Blue Star in Saugatuck?	3	6	5	8	4	4	1

What do you expect from tonight? (rate importance 1-5)	Average Responses
To learn	4.33
To contribute	3.73
To be heard	3.50
To make a difference	3.40
Good coffee	1.08

Prioritization Survey Results

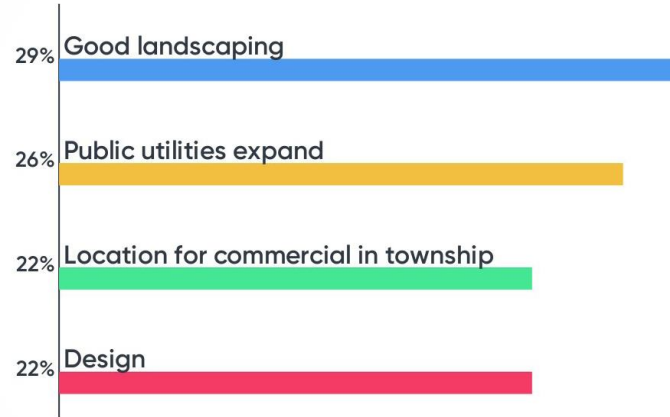
Strengths



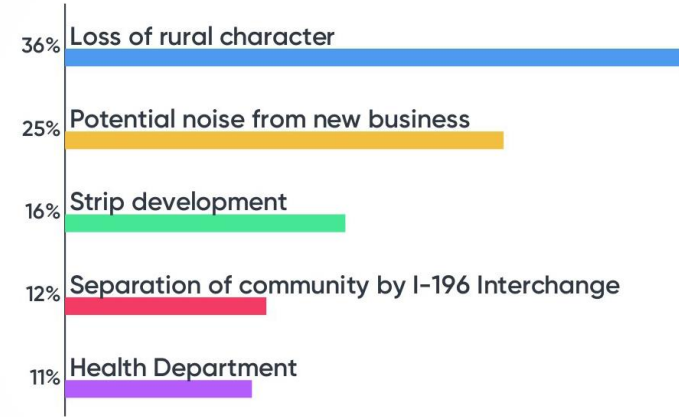
Weaknesses



Opportunities



Threats



How would you describe tonight?



Agricultural Workshop – July 23, 2018

Introduction Survey Results

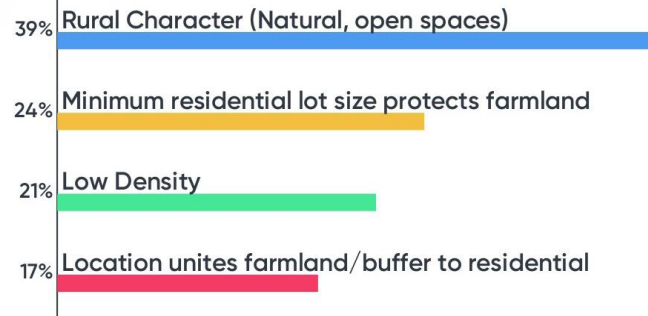
Questions	Yes	No	Somewhat	Total
Have you ever used Mentimeter?	4	10	n/a	14
Have you participated in a public workshop before?	8	7	n/a	15
Do you the purpose of a zoning ordinance?	13	2	3	18
Do you know the purpose of a master plan?	12	1	5	18
Do you know how a zoning ordinance and master plan work together?	8	4	6	18

What attracted you to live in Laketown?	Lake	Tax Rate	Rural Character	Location	Amenities	Other
	6	0	12	2	0	1

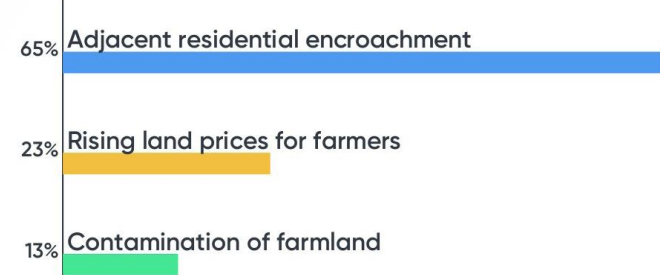
What do you enjoy about agricultural lands?	Rural Character	Farm Operations	Open Spaces	Farm Buildings	None of These
	9	8	11	4	2

Prioritization Survey Results

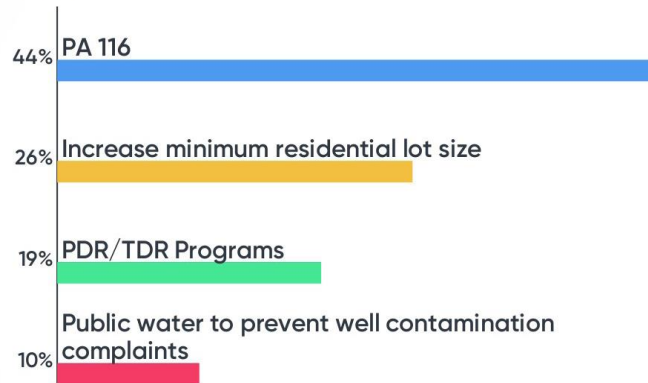
Strengths



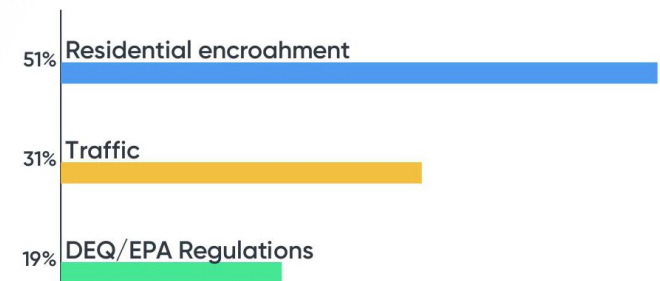
Weaknesses



Opportunities



Threats



How would you describe tonight?



Part 2 – SWOT Responses (Strengths, Weaknesses, Opportunities, Threats)

Northern Laketown Workshop – June 25, 2018

Strengths

- Rural character
- Wildlife
- Horse farms, farm land
- Trees
- Parks and greenspace
- Proximity to Lake Michigan
- Recreational resources
- Boating and marinas nearby
- Township beach and Saugatuck Dunes State Park
- Felt Mansion
- Existing bike paths
- Limited major roads/not a “through-township”
- Roads
- Proximity to Holland and Grand Rapids
- Highway access
- Low-density/single family residential
- Large residential lots
- Current Planning Commission
- Neighbors

Weaknesses

- Cell phone reception
- Internet availability
- Lack of boat storage
- Dense residential developments/PUDs
- Decrease in farmland
- Increase in traffic
- Seasonal rentals/bed and breakfasts
- Access/parking near historic cottages (not walkable)

Opportunities

- Protect/preserve rural character
- Keep the area as-is
- Less dense residential developments
- Limit lot splits
- Require larger residential lots
- More parks/amenities (kayak/ADA)
- New bike and walking paths
- Maintain current parks and public facilities
- Preserve/reclaim greenspace
- Require eco-friendly garden/lawn practices
- Allow home-based businesses, no signs
- Allow beekeeping with restrictions
- Improve beach access
- Allow marine and boat businesses
- Install Township-wide internet/fiber optic
- Install water/sewer
- Zoning should be cohesive with existing/respectful
- Incorporate as a charter township
- Reach out to young families and empty nesters

Threats

- Loss of rural character
- Loss of natural features, wildlife habitat
- Destruction of wetlands
- Potential for new, dense developments
- Multi-family dwellings/condominiums
- More seasonal rentals, bed and breakfasts
- Transient residents
- Commercial encroachment into residential
- City encroachment
- Expanding water/sewer
- Infrastructure erosion
- Road congestion due to growth
- Deterioration of roads, limited funding
- Increase in crime/vandalism
- Need more police resources
- Dogs unleashed in parks
- Parks not maintained
- Limited school capacity
- Current zoning is restrictive and limits owners' rights
- Sand mining
- Young families/residents not present

Blue Star Highway Workshop – July 12, 2018

Strengths

- Scenic, large street trees/canopy
- Large yards adjacent to corridor (setbacks)
- Rural/residential character of the corridor
- Mixed uses along corridor
- Existing commercial uses are low impact
- No street lights/limited light pollution
- Lack of utilities limits development
- Pavement is in good condition
- Easy access to/from I-196 and region
- Interchange configuration limits large semi-trucks
- Safe for motorists
- Class A road
- Park and ride lot
- Provides a good alternate route
- Not too much traffic/congestion

Weaknesses

- Limitations at I-196 interchange/MDOT control
- I-196 interchange is poorly designed
- Occasional heavy traffic
- Traffic noise/engine breaking
- Most traffic is westbound to Saugatuck/Douglas
- Abandoned businesses lacking maintenance
- Lack of front yard landscaping on developed properties
- Not safe for pedestrians/bicyclists
- Lack of sidewalks/crosswalks
- Lighting is needed in some areas (park and ride, intersections)
- Lack of utilities

Opportunities

- Incorporate 2008 Blue Star plan into Zoning Ordinance
- Zone for neighborhood commercial services
- Potential to offer businesses/services for tourists
- Proposed brewery may be a destination
- Limit intense commercial/industrial uses
- Local business expansion can be accommodated/land available
- Corridor has capacity to accommodate more traffic
- Allow businesses closer to corridor/reduce setbacks
- Require facades of new buildings to blend with existing
- Create more landscaping requirements
- Preserve natural vegetation as much as possible
- Right-of-way (ROW) is wide enough for a multi-use path
- Finish paving the corridor/improve
- Speed limit needs review if area becomes more developed
- New businesses can help fund water/sewer expansion
- Groundwater supply needs to be studied for capacity/contamination
- Zoning permit/approval process needs to be streamlined
- Market the corridor to perspective businesses

Threats

- New development will bring traffic, noise
- Potential for sand mining uses
- New strip malls/retail uses
- Tall buildings
- Large parking areas
- Loss of natural vegetation
- Limited east/west connectivity due to I-196
- Cost of improvements (street lights, bike path, etc.)
- Cost of maintaining corridor
- Utility expansion will bring too much development
- No wastewater treatment/potential for contamination
- Overall water/air quality
- Manufactured home park limits future growth/investment
- Manufactured home park has some crime
- Township officials do not want to expand or allow new businesses
- Fire Department is not involved in land use decisions
- Health Department is difficult to deal with

Agricultural Workshop – July 23, 2018

Strengths

- Natural environment, inland lakes and open spaces
- Rural/semi-rural character
- Location of agricultural lands (east of 60th Street)
- Access to locally grown food
- Animals permitted on all properties
- Ability to have small gardens/cropland
- Rural areas create transition from higher density
- Minimum lot size (2.5 acres) prevents dormant ground
- Larger lots limit density
- Low density residential developments
- Limitations on residential development
- Lack of infrastructure limits development
- Parks and bike paths
- Paved roads in good condition
- Natural vegetation along roads
- Good access to nearby conveniences

Weaknesses

- Denser developments erode rural character
- Clear-cutting land for farms
- Loss of horse farms
- Limited beach access
- Parks and public spaces not maintained
- Property maintenance is lacking
- Limited code enforcement
- Snow removal response time
- No place to ride horses
- Rising land prices for farmers
- Property tax increases
- Tax revenue for Township from agricultural land
- Tax application for agricultural property by Township

Opportunities

- Limit land divisions of agricultural zone to 20 acres
- Increase minimum lot size of agricultural zone
- Scale back areas zoned Rural Estate to Agricultural
- Keep commercial/industrial zoning along Blue Star
- Adopt a tree preservation ordinance that is flexible
- Support/promote Purchase/Transfer of Development Rights Programs
- Township outreach to citizens on farming
- Reduce property taxes on agricultural lands as incentive
- Study impacts of agricultural operations on groundwater
- Extend public water to residential areas
- Limit water/sewer expansions as a means to limit development
- Analyze land use along lakeshore, create land use plan
- Better maintenance of parks, public spaces
- Analyze recreational uses/needs
- More bike paths (east/west connectivity needed)
- Another public beach access point

Threats

- Loss of agricultural lands threatens rural character
- Generational interest in farming is decreasing
- Impact of adjacent residential developments (traffic, complaints)
- Nuisance complaints from livestock/operations
- Agricultural land is lost due to 2.5 acre minimum lot size/residence
- Potential for more “factory” farms
- Impact of farm use on groundwater (quality/quantity)
- Agricultural lands cannot be regained once lost
- Environmental regulations on farm operations
- Development pressure
- Rising land prices
- Increased demand for services (police, fire, roads) means higher taxes

Part 3 – Visual Preference Surveys

Visual Preference Survey Results

Northern Laketown Workshop - June 25, 2018

Question	1 Really don't like	2 Don't like	3 Neither like nor dislike	4 Like	5 Really like	Total Responses
What is your opinion of each of these residential designs?						
Clustered subdivision	0%	13%	0%	40%	47%	15
Large individual lots	0%	33%	20%	27%	20%	15
Shared open spaces and preserved	0%	7%	13%	40%	40%	15
Large individual lots	0%	40%	20%	20%	20%	15
Which garage placement is the most visually appealing?						
Predominantly garage	40%	13%	47%	0%	0%	15
Along side the house	0%	0%	47%	20%	33%	15
Side loading	7%	7%	47%	13%	27%	15
Detached, setback from the house	13%	20%	53%	7%	7%	15
How would you feel about the following elements in your neighborhood?						
Bike or pedestrian paths	7%	0%	20%	20%	53%	15
Home occupations	20%	33%	20%	27%	0%	15

Blue Star Highway Workshop - July 12, 2018

Question	1 Really don't like	2 Don't like	3 Neither like nor dislike	4 Like	5 Really like	Total Responses
How do you feel about each of these commercial designs?						
Outdoor seating and décor	15%	0%	8%	15%	62%	13
Large windows and awnings	15%	8%	31%	15%	31%	13
Large buildings/minimal windows	62%	15%	23%	0%	0%	13
Simple storefront	38%	15%	38%	0%	8%	13
How would you like the business district to appear from the street?						
A preserved natural area	0%	8%	15%	15%	62%	13
Street landscaping	0%	8%	15%	15%	62%	13
Small commercial/close to road	31%	23%	31%	8%	8%	13
Strip development	69%	15%	8%	8%	0%	13
In your opinion, how visually appealing are these signs?						
Large billboard signs	85%	15%	0%	0%	0%	13
Pole signs	69%	31%	0%	0%	0%	13
Ground signs	0%	15%	23%	31%	31%	13
Marquee signs	15%	15%	8%	38%	23%	13
How do you feel about the appearance of these building facades?						
Historic architecture	0%	8%	31%	15%	46%	13
All metal façade	46%	8%	23%	15%	8%	13

Blue Star Highway Workshop - July 12, 2018, continued

Question	1 Really don't like	2 Don't like	3 Neither like nor dislike	4 Like	5 Really like	Total Responses
Mixture of metal and brick	23%	0%	8%	54%	15%	13
All brick or architectural stone	15%	0%	23%	31%	31%	13
How would these design elements would fit into the business district?						
Cornice	23%	15%	31%	15%	15%	13
Primarily glass	31%	15%	15%	31%	8%	13
Pillars	8%	8%	31%	38%	15%	13
Horizontal expression lines	23%	15%	15%	38%	8%	13
In your opinion, how valuable is bike connectivity?						
Bike paths	15%	0%	23%	8%	54%	13
Bike infrastructure	15%	8%	15%	8%	54%	13
Business access	15%	8%	15%	23%	38%	13

Agricultural Land Workshop - July 23, 2018

Question	1 Really don't like	2 Don't like	3 Neither like nor dislike	4 Like	5 Really like	Total Responses
What is your opinion on each of these residential designs?						
Large lots, excessive roads, no natural landscape, eliminate farms	38%	31%	0%	8%	23%	13

Agricultural Land Workshop - July 23, 2018, continued

Question	1 Really don't like	2 Don't like	3 Neither like nor dislike	4 Like	5 Really like	Total Responses
Large individual lots	8%	8%	23%	23%	38%	13
Cluster lots, minimal roads, natural landscape and farm preserved	38%	8%	15%	31%	8%	13
Protection of farmland	15%	0%	38%	23%	23%	13
Which buildings are most visually appealing?						
Metal	15%	8%	46%	8%	23%	13
Wood	8%	0%	23%	46%	23%	13
Brick	15%	8%	31%	23%	23%	13
Vinyl	0%	0%	46%	23%	31%	13
How would you feel about these elements in the agricultural district?						
Small roadside stand	8%	8%	46%	8%	31%	13
Bike paths	15%	8%	23%	31%	23%	13
Green buffer by water or roads	8%	0%	15%	38%	38%	13

Visual Preference Survey Comments

Northern Laketown Workshop – June 25, 2018

- Prefer larger lots, smaller lots lead to congestion and loss of rural character
- Home design and placement should consider existing terrain, preserve wetlands
- Limit density
- Roads within residential developments need to have adequate width for safety and snow storage

- Open space in developments should be left to Township ownership
- Keep the area more wooded and rural versus subdivision development. Part of the charm of the area is its greenspace. If it continues to be overbuilt, wildlife will be forced out and it will become like a Holland neighborhood – lacking wooded and rural character. We would love to see more large wooded and private lots with a street frontage requirement/parcel width of 300 to 400 feet.

Blue Star Highway Workshop – July 12, 2018

- Landscaping, streetscaping, planters, and trees are desired along the corridor
- Allow mixed-use housing on the corridor
- A mixed-use plan would be best for Blue Star Highway

Agricultural Workshop – July 23, 2018

- Keep high-density properties!
- Small roadside stands should not be permitted to have buildings. They should simply be stands.
- Roadside stands are not commercial businesses, stands are good, stores are not.
- Let property owners decide what exterior building materials (siding, brick, wood, etc.) they are permitted to use.
- Do not allow Planned Unit Developments (PUDs). No high-density neighborhoods.
- More bike paths and more, but small, public beaches.

Part 4 – Comments

Map Comments

Northern Laketown Workshop – June 25, 2018

- | | |
|---|---|
| <ul style="list-style-type: none"> • Lower residential densities (west of 65th and north of 145th) • New bike and walking paths (146th Avenue, 32nd Street) • Street light needed at 62nd Street and 146th Avenue • 61st Street and 142nd Avenue to the north has been condemned by DEQ (40A) | <ul style="list-style-type: none"> • Traffic/speed road conditions on 66th Avenue • Intersection of 66th Street and 145th Avenue is unsafe • Do not widen 145th Avenue or add sidewalks • Connect bike path on 60th Street to Graafschap, make more accessible |
|---|---|

Blue Star Highway Workshop – July 12, 2018

- Heavy traffic on 136th Avenue between 62nd and 63rd
- Heavy traffic on Blue Star Highway between 62nd and 63rd
- Interchange area can be congested in summer

Agricultural Workshop – July 23, 2018

- No map comments.

Comment Cards

Northern Laketown Workshop – June 25, 2018

I would like to have parcel #03-11-002-037-00 rezoned from R-1 to R-2 in the new zoning plan. The reason is much of the property in the area is already zoned R-2.	Henry Walters	hdcjwalters@sbcglobal.net	(616) 355-7452
Growth boundary for north end based on utilities? Aging population Dispersing (?) density Annexation? Set the stage more about what the master plan is and the history of it.	Not provided	Not provided	Not provided
VIA Email: We are concerned about several large housing projects along 147 th Avenue. This density of housing will cause 147 th Avenue to become more of a “super highway” than a rural township road. We moved to this area for it’s rural character, wildlife and natural beauty. We are losing much of that due to the unchecked development in the northern part of the Township. Our vote would be for “no more” developments in this area.	Larry and Sally Woodall	woodallls@yahoo.com 4736 – 65 th Street	Not provided
VIA Email: Wider roads with more bike paths. I live on 144 th Avenue and Meadow Lane. I see many people walking and jogging on 144 th Avenue. I even see people with baby carriages. The road is not very wide and some vehicles use excessive speed. There is very little space for pedestrians to go to avoid the traffic. Also, I have never seen any speed limit enforcement on 144 th Avenue. This is an accident waiting to happen.	Sara Langen	Sl6262@gmail.com 6262 144 th Avenue	Not provided

Blue Star Highway Workshop – July 12, 2018

The area between Dunes View Party Store/Shell Gas Station and 63 rd Street is the gateway to Blue Star Hwy corridor. The area is in desperate need of a landscaping/streetscaping overhaul probably in coordination with MDOT (I-196 interchange and Park and Ride).	Laura Judge	laurasjudge@gmail.com	(616) 335-8200
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Weeds, dirt, it looks awful and sets the tone for the corridor entry. Further east on the corridor set high standards for a cohesive landscaping plan and retain plenty of forest along highway.			
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Agricultural Workshop – July 23, 2018

Please put in more bike paths and beach access	Wade Halma	wade.halma@gmail.com	(616) 915-7975
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Comment Sheets

Northern Laketown Workshop – June 25, 2018

- Change is inevitable, the key is to manage it appropriately. I can't expect my agricultural neighbor to refuse to develop his property simply for my benefit and rural values. As population grows, single-family residential is preferable and medium density zoning should be contained as an extension of Holland city. Commercial should be sharply contained and enforced. Laketown has a (?) today that is worth protecting. The areas that need management and improvement are outweighed today by existing resources and character. Let the change come with discretion and consensus whenever possible and preserve what makes us great today.
- Bike path 146th (60-62), 4-way stop 60th and 146th.
- Preserve rural atmosphere. Limit city encroachment. Attempt to keep public structures and public areas maintained and natural as possible when not developed. Limit new homes/businesses actually built for rentals and Air B&B. Zoning/construction/use should reflect impact on neighbors.
- Several things seemed not well thought out. Although I enjoyed and participated with the internet questions, the majority of individuals were unable to participate as they did not have phones, tabs, etc. This is either because the Township didn't inform FCP of the overall age of the property owners or you assumed "most people" carry phones. First problem. Second it is disconcerting to me that portions of the township are not really included, 145th to Blue Star. Why? A master plan is for the entire township and even we were encouraged to speak up, and I did, we do not fit into the three slated visions. North Laketown, Blue Star Highway or Agricultural. Seems odd. I am one of the many who did not RSVP, I apologize, however, you recovered well and I look forward to future meetings. Lynn Kobes, lkobes@hughes.net.
- Laketown is a residential township, so quality of life is an important issue and bike paths add to the quality of life. Extend the bike lane on 66th Street south of 146th Avenue, including 140th Avenue to 65th Street, south to end. Bike riding is becoming a more important sport and groups of riders like using 66th Street because traffic is light and the area is scenic. The road is narrow south of 146th Avenue, there are no paved shoulders. Create paved shoulders on both sides of roadway at least three (3) feet in width, or four (4) feet if possible. Now is the time to build bike paths and paved shoulders since the area is still somewhat undeveloped and land is available.
- The Township should take steps to purchase land owned by Holland Board of Public Works which is located on the lakeshore (parcel no. 03-11-021-014-00). The intent would be to protect this land from overdevelopment and to turn this parcel into a public park and trail with parking access on 141st Avenue. There is already a trail of sorts on the hillside, so an improved trail would be inexpensive. This beautiful property should be preserved. Consider a partnership effort in conjunction with the West Michigan Land Conservancy.
- I represent several home-based businesses in Laketown Township, and believe that the current zoning is not helpful for those that wish to operate and provide services to the residents. If home businesses were allowed, the Township as a whole would benefit (income for business owner, taxes for

Township, and services for residents). The minor inconveniences that may arise from home businesses far outweigh the extensive benefits. It is understood that further guidelines are needed, but to blanketly state that trade-type businesses cannot operate out of an outbuilding seems to negate the freedoms of living in a context of owning property that is large enough to limit the impacts the business would have on neighbors. Please consider small business owners.

- I would like to support allowing home occupations. There are many people in Laketown Township that run their business out of their home. Carpet installers, masons, lawn care, snow plowing, carpenters, countertop installers, transmission repair, ceramic tile installers, etc. I believe they help make up the fabric of Laketown Township. If they were all forced to move, this would be a different place and would not be better.

Blue Star Highway Workshop – July 12, 2018

- Install signs regarding engine breaking. Reduce speed limit. Extend bike path from Burger King. Install speed bumps to reduce speeding. Interurban bus service should be extended to Shangri-La Trailer Park to service those residents.
- Maintain greenspace adjacent to corridor with tree plantings. Buildings should be placed closer to road with parking in rear. Place transitional zoning between commercial and residential land uses.
- This is a proactive start, however, I wanted to go a bit more in depth. Perhaps talk about site analysis and regional analysis, design, sustainable infrastructure, needs assessment, goals, etc. Interested to know more about the master plan approval and adoption process.
- Vision for Blue Star corridor should be well-managed, low impact mixed use, much open space, well landscaped and mostly residential. Small commercial business should maintain the rural/agricultural feel of the surroundings. Retail uses should be limited, as it is not prospering. Our area needs housing, not retail. Home occupations are welcome along with businesses that serve the corridor.
- The Master Plan should extend commercial to the east on Blue Star to 60th Street. Also extend the water and sewer infrastructure to support commercial growth. The Blue Star corridor is the perfect spot for commercial growth and is easily accessible to I-196 with little to no residential development.

Agricultural Workshop – July 23, 2018

- Keep property taxes low. Allow property to have more liberty and allow smaller parcel sizes (100 feet width, 1 acre). Maintain steps at Laketown Beach. Have stronger rules on dogs and cats and penalize pet owners who allow pets to stray. Plan to maintaining coyote and woodchuck population. Township needs to allow more land divisions than currently permitted. Traffic is not currently a problem. Township tax dollars should not be spent on policing the I-196 interchange area. Ideas presented tonight are too big, too expensive. Laketown Township is not Washington DC. Respect land owners, give them freedom, keep taxes low.
- Bike paths are needed to slow down traffic. Consider created a residential growth boundary.

Appendix D

West Michigan Regional Airport Approach Plan & Airport Layout Plan (2018)

ACCIDENT SAFETY ZONES, LAND USE GUIDELINES AND PLANNING STRATEGIES FOR NEW DEVELOPMENT

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 1 (See Special Note)	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. 0-5 people/acre. 2. Airport sponsor should purchase property if possible. 3. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Airport sponsor should purchase property if possible. 3. Airport sponsor should obtain aviation and obstruction easements. 4. During the site development process, shift all structures away from the runway centerlines if possible. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

Special Note: Since the dimensions of Zone 1 are similar to the dimensions of the Runway Protection Zone (RPZ), those airports receiving federal grant dollars from the FAA's Airport Improvement Program, should strongly consider purchasing the RPZ, or otherwise acquire rights to the property for the RPZ.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 2	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. 0-5 people/acre. 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 3	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. < 25 people/acre. 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Limit residential development to Low Density housing standards. All non-residential land uses permitted outright subject to the Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

COMPATIBLE LAND USE MATRIX

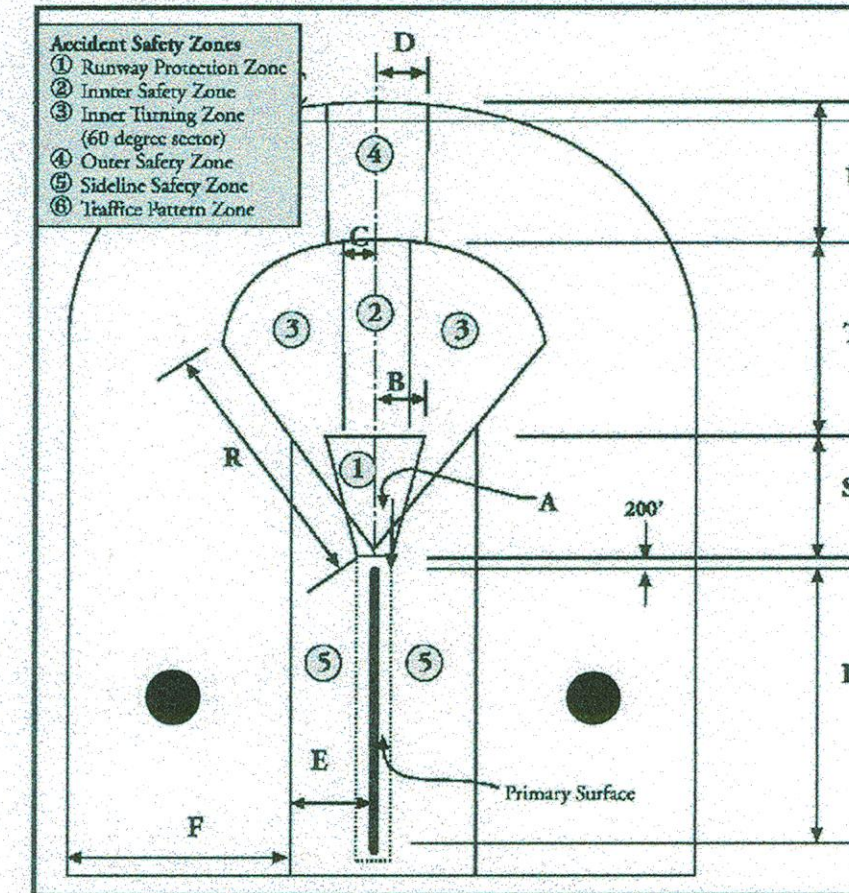
Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 4	Population Density	Limit population concentrations.	1. < 40 people/acre in buildings, < 75 persons/acre outside buildings.
	Residential vs. Non-Residential Land Use	Limit residential development to Low Density housing standards. All non-residential land uses permitted outright subject to the Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation easements. 3. Clustered development to maintain density as long as open space remains unbuilt. Place clustered development away from extended runway centerline. 4. Prohibit mobile home parks. 5. Require downward shading of lighting to reduce glare. 6. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Evaluate noise sensitive land uses in light of aircraft noise contour lines (if available) when establishing new zoning. 2. Prohibit high overhead utilities and all noise sensitive land uses. 3. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 4. Limit storage of large quantities of hazardous or flammable material. 5. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 5	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. 0-5 people/acre. 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	1. Airport sponsor should purchase property if possible. 2. Create a height hazard overlay ordinance around the airport. 3. Obtain aviation and obstruction easements. 4. During site development process, shift all structures away from the runway centerlines if possible. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

APPENDIX A

AIRCRAFT ACCIDENT SAFETY ZONE DIAGRAM



Note:
Data Source: NTSB
Accident Investigations
1984-1991. Illustration
Source: Hedges and
Shatt, Institute of
Transportation Studies,
University of California,
Berkeley, 1993.

SAFETY ZONE DIMENSION (IN FEET)

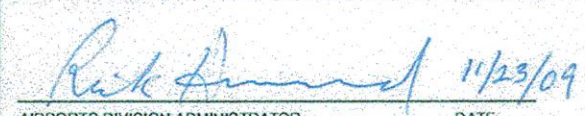
Dimension	Runway Length Category (L)		
	Runway less than 4,000	Runway 4,000 to 5,999	Runway 6,000 or more
A	125	250	500
B	225	505	875
C	225	500	500
D	225	500	500
E	500	1,000	1,000
F	4,000	5,000	5,000
R (60°Sector)	2,500	4,500	5,000
S	1,000	1,700	2,500
T	1,500	2,800	2,500
U	2,500	3,000	5,000

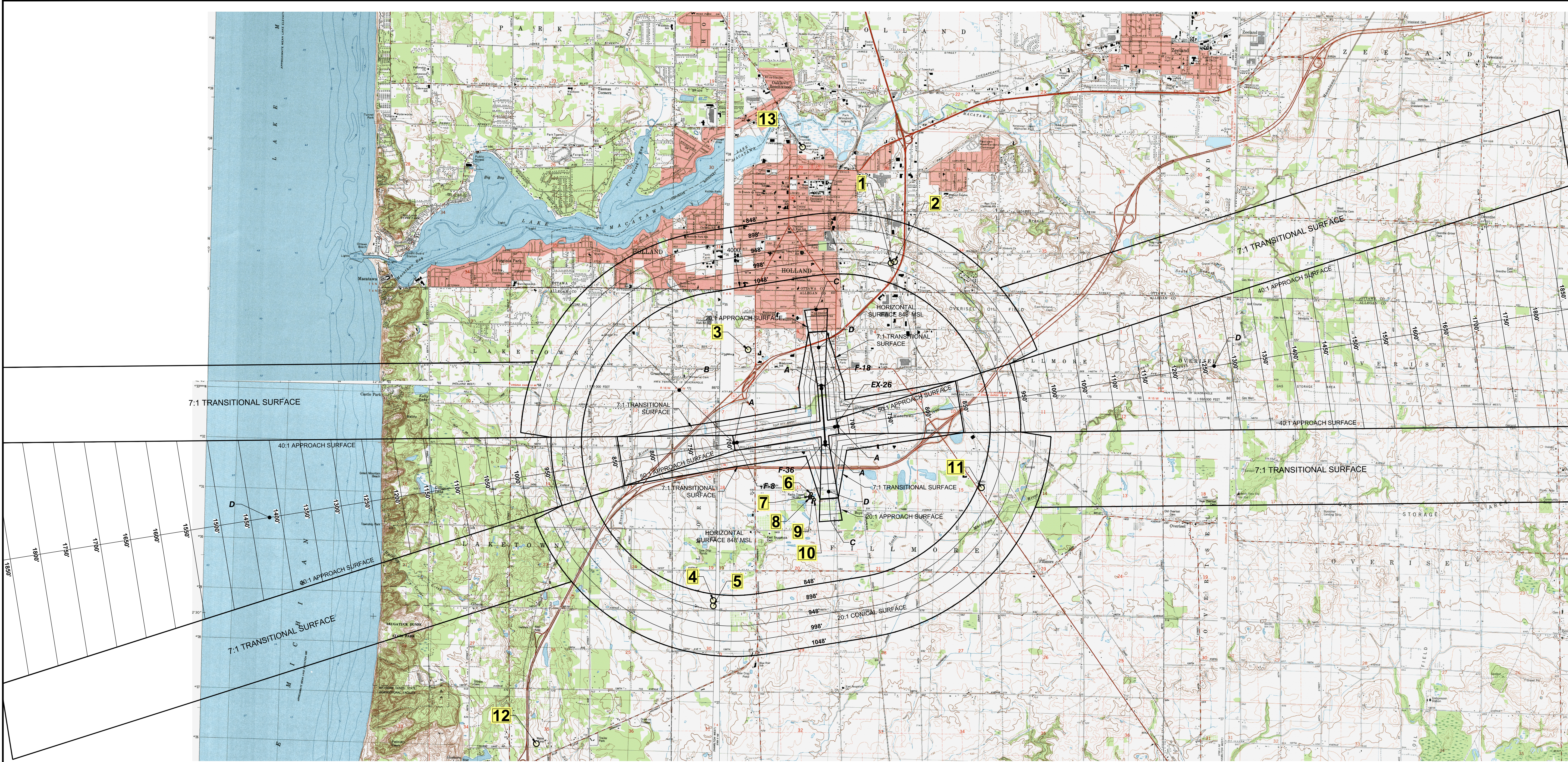


AT THE SEPTEMBER 16, 2009 MICHIGAN AERONAUTICS COMMISSION MEETING, THESE LAND USE GUIDELINES WERE AMENDED AND APPROVED TO BE USED IN AIRPORT APPROACH PLANS FOR ALL LICENSED PUBLIC USE AIRPORTS. THIS DOCUMENT AMENDS ALL PREVIOUSLY APPROVED AIRPORT APPROACH PLAN LAND USE GUIDELINES APPROVED BY THE COMMISSION. FOR A COPY OF THE OFFICIAL MINUTES OF THE COMMISSION MEETING, PLEASE CONTACT THE COMMISSION ADVISOR AT 517-335-9568.

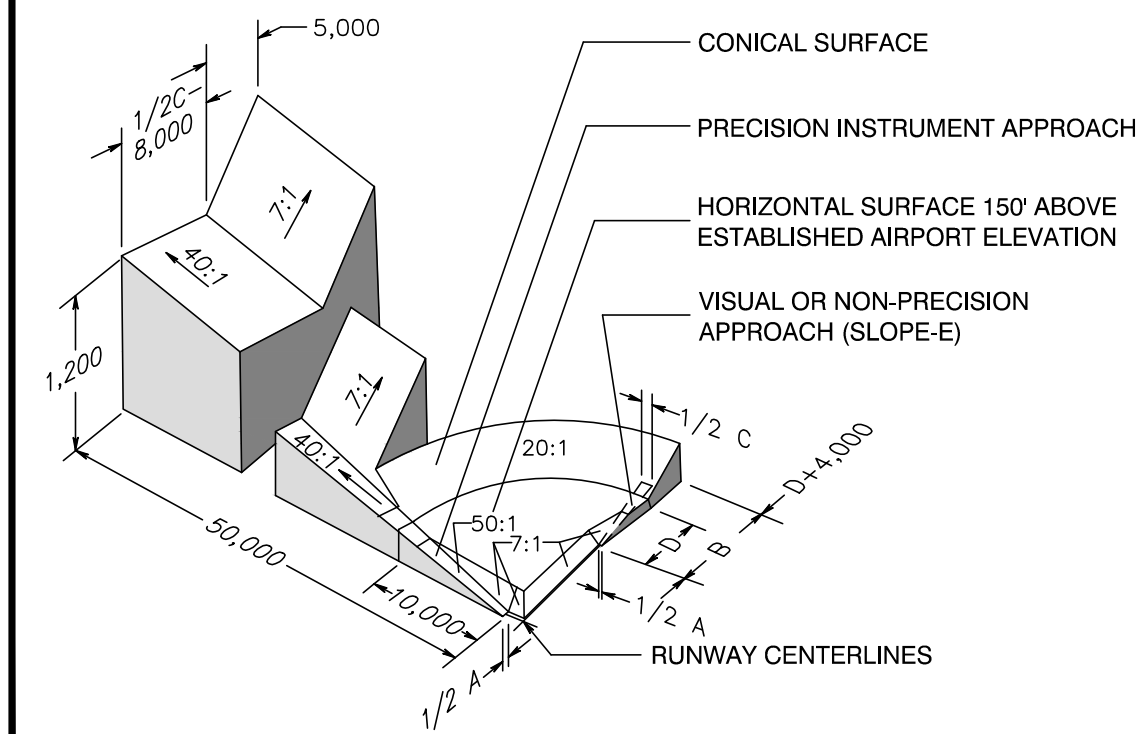
ANY AIRPORT SPONSOR OR DULY AUTHORIZED REPRESENTATIVE OF A ZONED LOCAL GOVERNMENTAL UNIT MAY REQUEST THAT THE MICHIGAN AERONAUTICS COMMISSION AMEND AN AIRPORT APPROACH PLAN. ALL SUCH REQUESTS MUST CLEARLY STATE THE CHANGE FROM THE CURRENT PLAN, THE REASON FOR THE REQUESTED CHANGE AND ANY STANDARDS USED TO JUSTIFY THE MODIFICATION. PLEASE CONTACT THE AIRPORT'S DIVISION ZONING SPECIALIST TO REQUEST ANY SUCH AMENDMENTS.



LAND USE GUIDELINES FOR STATE OF MICHIGAN AIRPORT APPROACH PLANS			
MICHIGAN DEPARTMENT OF TRANSPORTATION AIRPORTS DIVISION LANSING, MICHIGAN			
APPROVED			
 11/23/09 AIRPORTS DIVISION ADMINISTRATOR DATE			
DRAWN NAB 8/03 CHECKED PLOTTED			
REVISIONS E 11/23/09 CHANGED SPECIAL NOTE LPS RH D 10/30/06 ZONE 3 MODIFICATIONS, TITLE CHANGE LPS RH C 8/25/03 SAFETY ZONE DIAGRAM NAB B 4/16/02 Delete Zone 6 NAB A 3/01/02 New guidelines / strategies NAB NO. DATE REMARKS BY CHK			



ISOMETRIC VIEW OF SECTION A



APPROACH SURFACE DIMENSIONS

		FUTURE 8	EXISTING 26	FUTURE 18	FUTURE 36
A	WIDTH OF PRIMARY SURFACE	1,000'	1,000'	500'	500'
B	RADIUS OF HORIZONTAL SURFACE	50,000'	50,000'	5,000'	5,000'
C	APPROACH SURFACE WIDTH AT END	16,000'	16,000'	1,500'	1,500'
D	APPROACH SURFACE LENGTH	50,000'	50,000'	5,000'	5,000'
E	APPROACH SURFACE RATIO	50:1	50:1	20:1	20:1

RUNWAY DATA

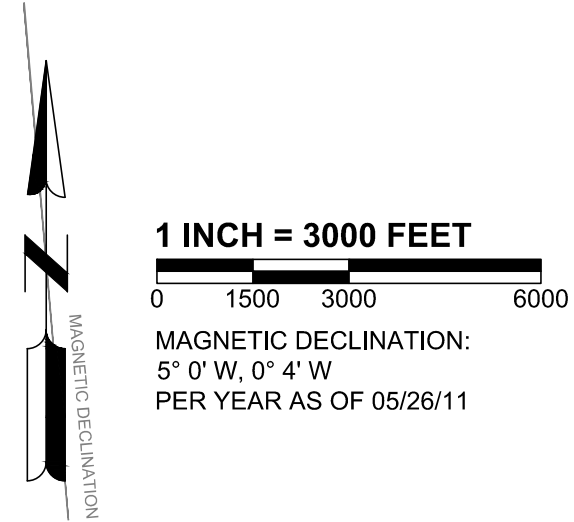
	FUTURE 8	EXISTING 26	FUTURE 18	FUTURE 36
LATITUDE (LAT.)	42° 44' 28.73" N	42° 44' 39.31" N	42° 45' 03.92" N	42° 44' 29.48" N
LONGITUDE (LONG.)	86° 07' 07.75" W	86° 05' 48.61" W	86° 06' 00.97" W	86° 05' 56.77" W
ELEVATION (EL.)	698'	686'	672'	672'
STATION (STA.)	62+02	02+00	100+00	135+00
BEARING	N 79° 42' 18.36" E	N 79° 42' 18.36" E	N 174° 51' 36" E	N 174° 51' 36" E
APPROACH TYPE	PRECISION	PRECISION	VISUAL	VISUAL

OBSTRUCTION DATA TABLE

OBJECT	TYPE	LATITUDE	LONGITUDE	ABOVE GROUND LEVEL (AGL)	MEAN SEA LEVEL (MSL)
1	OTHER W/O ANTENNA	42° 46' 26.08" N	86° 05' 02.14" W	300'	960'
2	OTHER W/O ANTENNA	42° 46' 27.00" N	86° 04' 59.00" W	225'	887'
3	OTHER W/O ANTENNA	42° 45' 28.08" N	86° 07' 06.14" W	199'	884'
4	OTHER W/O ANTENNA	42° 42' 45.23" N	86° 07' 32.16" W	199'	937'
5	OTHER W/O ANTENNA	42° 42' 41.70" N	86° 07' 32.00" W	195'	936'
6	OTHER W/O ANTENNA	42° 43' 55.52" N	86° 08' 08.11" W	195'	874'
7	TOWER	42° 43' 54.00" N	86° 08' 09.00" W	199'	889'
8	OTHER W/O ANTENNA	42° 43' 53.08" N	86° 08' 09.14" W	196'	876'
9	TOWER	42° 43' 51.84" N	86° 08' 05.34" W	199'	879'
10	OTHER W/O ANTENNA	42° 43' 51.84" N	86° 08' 05.34" W	196'	878'
11	TOWER	42° 43' 52.00" N	86° 08' 05.00" W	196'	878'
12	TOWER	42° 41' 10.00" N	86° 10' 05.00" W	353'	1,033'
13	TOWER	42° 47' 40.00" N	86° 06' 22.00" W	406'	996'

GENERAL NOTES:

- OBJECTS LOCATED WITH THE USE OF "OBSTRUCTION EVALUATION" DATA PROVIDED BY MDOT OFFICE OF AERONAUTICS. THE CURRENT FILE CONTAINS ALL APPLICATIONS RECEIVED SINCE 1996.
- MEAD & HUNT AND MDOT OFFICE OF AERONAUTICS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE NOAA DATABASE. THE DATABASE MAY NOT BE INCLUSIVE OF ALL OBSTACLES WITHIN THE PART-77 SURFACES SHOWN.
- SECTIONAL CHARTS & THE FAA SHOULD BE REFERENCED FOR ADDITIONAL INFORMATION DUE TO THE CONTINUED PROLIFERATION OF TOWERS AND ASSOCIATED OBSTACLES.



REVISIONS				WEST MICHIGAN REGIONAL AIRPORT			
NO.	DATE	REMARKS	BY	CHK	HOLLAND, MI		
1					AIRPORT LAYOUT PLAN FAR PART-77 PLAN		
2							
3							
4							
5							
6					STATE ID. NO. 03-07		
7							
8							
9							
10							
					MMH PROJECT NO. 08199-00-09001	DESIGNED	SADW 5/11
					FEDERAL CONTRACT NO. n/a	DRAWN	AEF 5/11
					STATE CONTRACT NO. B-26-00465-3006	CHECKED	SADW 5/11
					SHEET: 14 OF 14		