

Ada Township Master Plan, 2007 Kent County, Michigan

November 6, 2007

ADA TOWNSHIP PLANNING COMMISSION

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The Ada Township Master Plan was adopted by Resolution of the Ada Township Planning Commission on November 6, 2007, and by Resolution of the Ada Township Board on November 12, 2007.

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CHAPTER I INTRODUCTION

Planning for the future is one of the more important responsibilities of local government. The preparation of a Master Plan is the means by which the citizens of the community express their preferences regarding the future development of the community. The Master Plan also plays an important role in inventorying and assessing the community's land base and natural features, and ensuring that the physical development of the community is compatible with the long-term health of the natural environment. The Master Plan assists local government in anticipating and planning for public facility needs. It also provides important background information concerning historical and current trends in the community - information which is useful to existing and prospective residents and business owners in the Township.

Specific uses and benefits of a Township Master Plan include the following:

- It is the statutory basis upon which zoning and other land use decisions are made. The Township Rural Zoning Act (P.A. 184 of 1943, as amended) requires that the Township's zoning ordinance be based upon a plan designed to promote the public health, safety and general welfare of the community. Therefore, the Master Plan and associated maps provide a basis for making land use decisions which are implemented through zoning and other legal devices, such as the Subdivision Control Act.
- The Plan serves as a resource document for Township decision-making. The goals and implementation strategies outlined in the plan provide a guide for the Planning Commission and Township Board in their consideration and review of zoning applications, community facility improvements, interlocal cooperation and other matters related to land use, development and the environment.
- The Master Plan provides a comprehensive statement of the Township's goals and policies. It helps direct growth into a desired development pattern, rather than leaving the future shape of the community to chance and circumstance. The Plan also helps educate and inform citizens, property owners, developers and adjacent communities about the Township's direction for the future.
- The Plan also helps coordinate the objectives and programs of other public agencies with local planning goals. Planning efforts and projects of the Michigan Department of Transportation (MDOT), Grand Rapids and Environs Transportation Study (GRETS), the Metropolitan Water and Sewer Planning Agency and others are able to better conform with local needs if a current community Master Plan is available to guide and inform these other agencies.
- Finally, the Master Plan helps decision makers and property owners protect sensitive natural features and maintain the aesthetic appeal of the community, by identifying and mapping important natural features and ways they can be protected.

The Township Planning Act, originally enacted as Act 168 of 1959, was amended in significant ways by Act 263 of 2001. Beginning in 2002, townships are required to review the Master Plan and "determine whether to commence the procedure to amend the plan or adopt a new plan" at least every 5 years. The 2001 amendment also established new requirements for intergovernmental consultation during the plan preparation process, including notifying adjacent communities of the initiation of the planning process and the opportunity for input, and providing a copy of the proposed plan to the planning commissions of adjoining communities for review and comment. These new procedures have been followed in the preparation of this plan.

The 2001 Township Planning Act amendment also included new provisions regarding the required content of the Master Plan. The law now states that

"the basic plan shall address land use issues and may project 20 years or more into the future. The plan shall include maps, plats, charts and descriptive, explanatory and other related matter and shall show the planning commission's recommendations for the physical development of the unincorporated area of the township."

In addition, the law states that the plan

"shall also include those of the following subjects which reasonably can be considered as pertinent to the future development of the township:

(a) A land use plan and program, in part consisting of a classification and allocation of land for agriculture, residences, commerce, industry, recreation, ways and grounds, public buildings, schools, soil conservation, forests, woodlots, open space, wildlife refuges, and other uses and purposes.

(b) The general location, character and extent of streets, roads, highways, railroads, airports, bicycle paths, pedestrian ways, bridges, waterways, and water front developments; flood prevention works, drainage, sanitary sewers and water supply systems, works for preventing pollution, and works for maintaining water levels; and public utilities and structures.

(c) Recommendations as to the general character, extent, and layout for the redevelopment or rehabilitation of blighted areas; and the removal, relocation, widening, narrowing, vacating, abandonment, or changes or use or extension of ways, grounds, open spaces, buildings, utilities, or other facilities.

(d) Recommendations for implementing any of its proposals.

In accordance with the above statutory provisions, this plan includes the following components:

• Description and analysis of existing conditions in the Township.

The existing characteristics of the community are described, including population history and other demographic characteristics, socio-economic characteristics of the community, predominant natural features, the existing land use pattern in the Township and the existing community facilities in the Township.

• Issue identification.

Based on a knowledge of past and current trends in the community, major growth and development issues which need to be addressed in future planning for the Township are identified.

• Formulation of community goals and objectives.

With input from the public, the community development goals of the community have been identified. The community goals and objectives have been expressed in the form of a "Vision Statement" for the community, which describes the desired future character and conditions that the community seeks to achieve.

• Projection of Future Population

Historical population trends and consideration of community goals are used to prepare projections of future population growth in the Township. Land needs for future residential, commercial and industrial growth can then be defined.

• Future Land Use Map.

Based on knowledge of what has happened in the past and our goals for the future, a Future Land Use Map is prepared which depicts the extent and direction of future growth in the community.

• Community Facility Needs

The Plan contains an identification of community facilities to meet existing needs as well as anticipated future needs resulting from future population growth, including roadway improvements, non-motorized transportation facilities, utility services, parks and others.

• Plan Implementation Strategy

The Master Plan identifies concrete actions which need to be taken by the Township to achieve stated Plan goals. Responsibilities for specific actions are assigned, and priorities and timeframes established for their accomplishment.

The following sections of this Plan are organized according to the major components listed above.

CHAPTER II COMMUNITY PROFILE

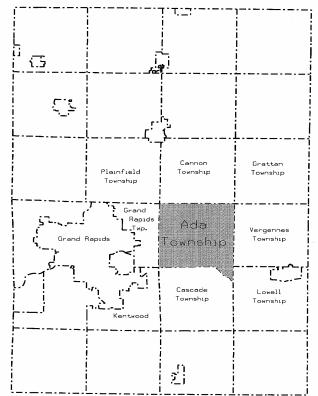
Overview

In the last 30 years, the character of Ada Township has changed dramatically in many ways. The community has evolved from a sparsely populated, predominantly rural and agricultural community to a highly-diverse community containing both urban and rural characteristics. This transformation is due in part to the Township's location at the perimeter of the Grand Rapids urbanized area. Figure 1 identifies the location of Ada Township in Kent County, in relation to surrounding municipalities. The international growth of the Alticor Corporation has provided the benefits of a generous industrial tax base to the Township, as well as a major source of local employment. A variety of smaller employers contribute to the Township's tax base. The southeast quadrant of the Township, which is served by public sewer and water and is near urban employment and service centers, has been the focus of a significant amount of suburban residential development over the last 20 years. This urbanization trend has placed new demands on public services in the Township, such as increased traffic on Township roads and the need for additional parks and recreation facilities. Unlike many other highway corridors in the metropolitan

area, the Fulton St. (M-21) corridor has, by the Township's intention, remained largely free of linear-patterned commercial development and its resulting negative impacts on traffic congestion and safety and community aesthetics.

Much of the three-quarters of the Township north and east of the Grand River is still predominantly rural, even though this area has experienced significant development in the last 15 years. The opening of the Forest Hills Eastern Middle and High School campus within the last 5 years has contributed to northern Ada Township's attractiveness for residential development.

One characteristic of the Township has remained largely unchanged. The Township has an abundance of natural features which contribute to its scenic beauty and its attractiveness as a living place. These include wooded, rolling hills, spacious meadows, active and fallow farmland, the Grand and Thornapple Rivers, smaller



streams and wetlands. The preservation of Figure 1 - Location of Ada Township in Kent this attractive natural character in the face of County

continued development pressures will pose a challenge to the Township in the future.

Historical Population Growth:

The Township's population growth rate increased significantly in the 1990's, in comparison to the growth that occurred in the 1980's. Table 1 summarizes population growth over the last 25 years in Ada Township and surrounding communities, based on US Census data. The Township population increased by 2,304 persons between 1990 and 2000, a 30% increase, compared to a

much smaller 17% increase during the 1980's. This high rate of growth has continued since 2000, with the population having grown by an estimated 19% in the last 5 years.

Table 1 **Historical Population** Ada Township and Surrounding Communities, 1980-2005

Community	1980	1990	% Change 1980-90	2000	% Change 1990-00	Estimated 2005	% Change 2000-05
ADA TOWNSHIP	6,472	7,578	17.1%	9,882	30.4%	11,762	19.02%
Cannon Township	4,983	7,928	59.1%	12,075	52.3%	13,233	9.59%
Cascade Township	10,120	12,829	27.2%	15,107	17.8%	16,571	9.69%
Grand Rapids Township	9,294	10,760	15.8%	14,056	30.6%	14,787	5.20%
Lowell Township	3,972	4,774	20.2%	5,219	9.3%	6,203	18.85%
Vergennes Township	1,819	2,492	37.0%	3,611	44.9%	4,120	14.10%
Kent County	444,506	500,631	12.6%	574,335	14.7%	596,666	3.89%
Source: 1980, 1	990, 2000	: U.S. Cer	ISUS				

1980, 1990, 2000: U.S. Census

2005: U.S. Census Bureau estimates

Building Permit Data:

Table 2 summarizes residential building permit data for Ada Township, back to the early 1980's. Building activity from 1998-2000 was greater than at any time in the last 25 years. The total number of housing units started during the last 3 years of the 1990's was 2 1/2 times the number of units started in the first three years of the decade. In the most recent 3 years, however, the level of new home construction in the Township has declined somewhat to about 100 new dwelling units per year.

The data also show that the median value of newly-constructed single-family residences (excluding land value) in the Township has increased steadily over the last 5 years.

Household and Family Size Trends:

After decreasing significantly between 1980 and 1990, average household size in Ada Township remained relatively unchanged through the 1990's. Historical data and 2000 Census comparison data for the County and State are shown in Table 3. The Township's average household size of 3.03 persons remains well above the State and County averages. The Township has a high percentage of its households that are family (2 or more related persons who reside together) households (85.9%), compared to Kent County overall (67.7%) This indicates that the Township has relatively few single person households and/or few households with only unrelated persons living together. The average family size in the Township, at 3.3 persons per family is only slightly larger than the overall Kent County average of 3.2 persons per family. In summary, families in the Township are not particularly larger than families in the County overall, but Ada Township has a higher than average proportion of its total households that consist of families.

Table 2Residential Construction History and TrendsAda Township, 1981-2006

Year	Single	Total	Average Value	Median Value of	Multiple Family
	Family Permits	Valuation (\$ million)	per Single Family Unit	New Single Family Homes	Permits
1981	25	Not Avail. (NA)	NA		-
1982	20	NA	NA		-
1983	38	NA	NA		-
1984	48	\$3.54	\$73,750		-
1985	61	\$5.21	\$85,410		-
1986	65	\$6.31	\$97,077		-
1987	91	\$10.51	\$115,495		-
1988	104	\$13.77	\$132,404		-
1989	88	\$11.45	\$130,114		13
1990	50	\$8.46	\$169,200		-
1991	53	\$9.43	\$177,925		-
1992	65	\$11.46	\$176,308		6
1993	72	\$13.92	\$193,319		7
1994	87	\$15.92	\$182,989		Not Avail.
1995	63	\$11.82	\$187,573		0
1996	113	\$24.61	\$217,816		42
1997	86	\$23.64	\$274,894		4
1998	123	\$27.65	\$224,823		0
1999	152	\$33.62	\$221,180		15
2000	175	\$38.48	\$219,878		19
2001	123	\$34.87	\$283,531		39
2002	150	\$34.57	\$230,453	\$168,500	8
2003	146	\$45.42	\$311,067	\$189,000	4
2004	106	\$34.04	\$321,169	\$288,000	0
2005	95	\$31.35	\$330,024	\$300,000	0
2006	101	\$35.46	\$351,124	\$310,000	0

Source: Ada Township Building Department

Ada Township					Kent County	Michigan
	1970	1980	1990	2000	2000	2000
Persons Per Household	3.55	3.32	3.10	3.03	2.64	2.56

Source: U.S. Census, 1970, 1980, 1990, 2000

Race:

In 2000, 95.6 percent of Ada Township residents were white, 0.5 percent black, 2.3 percent Asian or Pacific Islander, and 1.1 percent of Hispanic origin, according to the 2000 Census. The Asian and Hispanic proportions of the Township's population grew slightly from 1990 to 2000. Countywide, the Hispanic proportion of the population grew significantly, from 2.9% to 7.0%, from 1990 to 2000, while the Asian/Pacific Islander proportion grew from 1.1% to 2.0%.

Age Distribution:

Data in Table 4 indicate the general aging of the Township's population that has occurred over the last 30 years. The median age of the population has increased significantly, from 23 years in 1970 to 37 years in 2000. The Township in 2000 had a significantly lower percentage of its population less than 18 years old, and a higher percentage age 65 or over, than was the case in 1970. Even so, the Township has a lower percentage of it population age 65 or over than is the case for Kent County or the State overall, and a higher percentage of children, compared to the County and State overall.

Tables 5 and 6 provide more detailed information regarding the age distribution of the Township's population in 2000 compared to 1990, and compared to the State and County distributions.

	1970	Ada T 1980	Kent County	State of Michigan		
	1070	1000	1990	2000	2000	2000
Median Age	23	28.5	33.2	37.2	32.5	35.5
% under 18	41.3%	35.6%	32.3%	32.6%	28.3%	26.1%
65 and over	5.6%	5.1%	6.2%	7.1%	10.4%	12.3%

Table 4Median Age Trends in Ada Township, 1970-2000

Source: U.S. Census

The age distribution data in Table 6 shows that Ada Township has a very strong representation of the 45-54 age group in its population, compared to the age distribution in the County and State overall. Data in Table 5 shows that the number of persons in this age group nearly doubled between 1990 and 2000, from 943 persons to 1,811 persons. This would seem to indicate that the Township has a high proportion of its residents who are: 1) in their peak earning years, and 2) may be seeking to "downsize" their housing and/or seek housing having less of a maintenance burden.

The data in Table 5 also show that the 20-24 age group is under weighted in the Township, compared to the State and County percentages. This may be a reflection of the relative lack of housing stock in Ada Township that would be affordable for young, first-time home buyers. Overall, the number of persons age 18-44 in the Township changed very little between 1990 and 2000, increasing by slightly less than 3%, compared to the overall 30% increase in total population.

Table 5Population Age Distribution

Ada Township, 1980-2000

Age Groups	2000 Number of Persons	2000 % of Total	1990 Number of Persons	1990 % of Total	1980 % of Total
Under 5	760	7.7%	663	8.7%	9.1%
5-17	2,465	24.9%	1,785	23.6%	26.5%
18-24	530	5.4%	503	6.6%	9.0%
25-44	2,728	27.6%	2,664	35.2%	32.6%
45-54	1,811	18.3%	943	12.4%	10.1%
55-64	886	9.0%	550	7.3%	7.2%
65+	702	7.1%	470	6.2%	5.1%

Source: U.S. Census: 1970, 1980, 1990, 2000

Disabled Population:

According to the 2000 U.S. Census, of a total of 6,250 persons aged 16-64 in Ada Township, 4.99%, or 312 persons, had an employment disability. This percentage is significantly lower than the 10.1% disabled adult population in Kent County overall. 2.3% of Ada Township residents age 16 or older had a disability affecting their ability to go outside the home, compared to 6.4% for the County overall.

Education Levels:

As shown in Table 7, in 2000, only East Grand Rapids ranked higher than Ada Township among nearby Kent County communities in the percentage of its population having high school diplomas. Ada Township also ranks high among communities in Kent County in the percentage of its residents having college degrees.

Income:

Ada Township has a relatively affluent population when its median household income is compared to that of other communities in Kent County. The Township had the third highest median household income in the county in 1999, trailing only Cascade Township and East Grand Rapids. Ada's median household income of \$83,357 was 81 percent greater than Kent County's median level of \$45,980.

Table 62000 Age DistributionAda Township, Kent County and Michigan

Age Group	Percentage of 2000 Population					
	Ada Twp. Kent County		Michigan			
Under 5	7.7%	7.8%	6.8%			
5-19	27.2%	23.6%	22.2%			
20-24	3.1%	7.4%	6.5%			
25-44	27.6%	31.1%	29.8%			
45-54	18.3%	12.7%	13.8%			
55-64	8.9%	7.0%	8.7%			
65+	7.1%	10.4%	12.3%			

Source: U.S. Census, 2000

Ada Township also had the third highest 1999 per capita income among all Kent County communities, at \$37,840, again exceeded only by that of East Grand Rapids and Cascade Township, according to the U.S. Bureau of the Census.

Employment:

Occupational characteristics of Ada Township residents in 2000 are given in Table 8. In 1990, white collar occupations (managerial and professional specialty; and technical, sales and administration) accounted for 71.3% of the Township's employed persons. This percentage increased to 79% by 2000. The percentage of employed persons in blue collar occupations (production, transportation, material moving, construction, extraction and maintenance) decreased from 18.4% in 1990 to 13.4% in 2000.

The numerical increase in the numbers of higher-paying white collar professions is concomitant with the Township's strong ranking among Kent County communities in housing values, education, and income levels.

The industries employing Ada Township residents in 2000 are shown in Table 9. The industry groups employing the largest numbers of Ada Township residents include education, health and social services, responsible for nearly 22% of employed residents, and manufacturing, at 18.4%. Industry groups that are more heavily represented in Ada Township residents' employment compared to Kent County overall include the professional, scientific, management and administrative category, and finance, insurance and real estate.

Table 7Education Attainment of Persons 25 Years and OlderAda Township and Surrounding Communities, 2000

	Percentage of Persons 25 Years & Older				
Community	High School Graduate or Higher (%)	Bachelor's Degree or Higher (%)			
Ada Township	96.5%	50.6%			
Cannon Township	95.8%	37.9%			
Cascade Township	96.0%	54.6%			
East Grand Rapids	99.0%	71.1%			
G.R. Township	91.6%	46.0%			
Vergennes Township	94.1%	27.4%			
Kent County	84.6%	26.7%			
Michigan	83.4%	22.6%			

Source: U.S. Census, 2000

Table 8

Occupation of Employed Persons 16 Years and Over, 2000 Ada Township

Occupation	Number Employed, 2000	% of Total Employed
Management, professional, and related occupations:	2,509	51.7%
Service occupations:	354	7.3%
Sales and office occupations:	1,321	27.2%
Farming, fishing, and forestry occupations	16	0.4%
Construction, extraction, and maintenance		4.6%
occupations:	221	
Production, transportation, and material moving	429	8.8%
occupations:		
Total:	4,850	100.0%

Source: U.S. Census

Table 9Industry of Employed PersonsAda Township, 2000

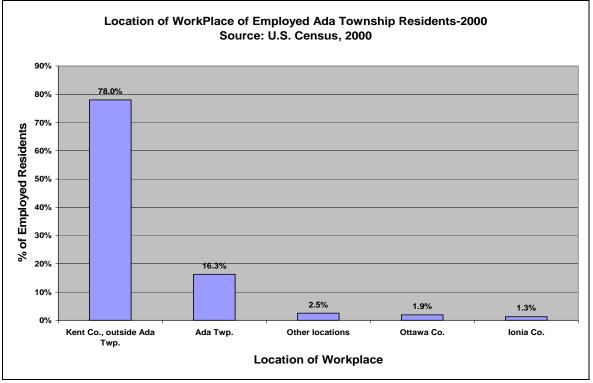
Industry Category	Number of Employees	Percen	t of Total Emplo	oyment
industry bategory	Ada Township	Ada Township	Kent County	Michigan
Agriculture, forestry, fishing and hunting, and mining:	38	0.8%	0.6%	1.1%
Construction	172	3.5%	5.6%	6.0%
Manufacturing	894	18.4%	23.7%	22.5%
Wholesale trade	263	5.4%	5.5%	3.3%
Retail trade	628	12.9%	13.2%	11.9%
Transportation and warehousing, and utilities:	166	3.4%	3.4%	4.1%
Information	73	1.5%	2.0%	2.1%
Finance, insurance, real estate and rental and leasing:	457	9.4%	6.0%	5.3%
Professional, scientific, management, administrative, and waste management services:	550	11.3%	7.8%	8.0%
Educational, health and social services:	1060	21.9%	18.8%	19.9%
Arts, entertainment, recreation, accommodation and food services:	237	4.9%	7.1%	7.6%
Other services (except public administration)	156	3.2%	4.4%	4.6%
Public administration	156	3.2%	2.0%	3.6%
Total:	4850	100.0%	100.0%	100.0%

Source: U.S. Census, 2000

Commuting Patterns:

Although Ada Township can be characterized as a bedroom community, there is a significant base of local employment that provides jobs for a significant number of Township residents. The following chart shows the distribution of workplace locations for the Township's 4,802 employed persons in 2000, based on US Census data. A relatively high percentage (16.3% of the Township's employed persons were employed at a workplace in Ada Township. Other locations in Kent County are the workplace location for 78% of the Township's employed persons. Ottawa County and Ionia County are the workplace location for 1.9% and 1.3% of employed Township residents, respectively.

Figure 2



Housing Stock

The housing stock in Ada Township is composed almost entirely of single-family detached units. Table 10 compares the distribution of housing units by number of units in the structure for the Township, Kent County and the State in 2000. Of note is the fact that only 3.8% of the housing units in the Township are of a type other than detached single-family units. However, this percentage has increased somewhat from 1990, when the Census data indicated that 98.19% of the Township's housing units were detached single family. The construction of 96 attached condominiums in the Clements Mill development in the last 10 years is largely responsible for this modest change in the makeup of the Township's housing stock. It should be noted that the data in Table 10 is from a sample survey of households conducted as part of the 2000 census, rather than 100% count data, and may be subject to some error. For example, the Census data indicates that there were 6 housing units in structures containing 20-49 units. In fact there are no multiple family structures in Ada Township containing 20 or more units. If there were such a building, one would expect that the data would indicate a count of at least 20 such units.

Table 11 compares the median value of owner-occupied housing in Ada Township with that of neighboring townships, the City of East Grand Rapids, Kent County and the State. Cascade Township, East Grand Rapids and Ada Township have the highest median housing values in Kent County.

Table 12 provides data concerning the percentage of homes within the Township within specified value ranges, compared to the State and County overall. Only 6.4% of owners reported their homes as being valued less than \$100,000, compared to 39% in Kent County overall. The percentage of homes in the \$100,000 to \$149,999 value range in the Township, at 26.8%, was comparable to the percentage for the County overall, at 32.5%. The predominance of detached single-family homes in the Township, and the relatively high value of the housing stock indicates that there is limited availability of housing in the Township for first-time home buyers, renters or those of moderate incomes.

Table 10Distribution of Housing Units by Number of Units in Structure, 2000Ada Township, Kent County and Michigan

Units in Structure	Ada Township		Kent County		Michigan	
	Number	Percent	Number	Percent	Number	Percent
1, detached	3,254	96.2%	142,341	63.5%	2,988,818	70.6%
1, attached	90	2.7%	10,303	4.6%	164,910	3.9%
2	11	0.3%	13,580	6.1%	146,414	3.5%
3 or 4	6	0.2%	8,518	3.8%	118,067	2.8%
5 to 9	17	0.5%	9,792	4.4%	169,946	4.0%
10 to 19	0	0.0%	13,900	6.2%	144,848	3.4%
20 to 49	6	0.2%	7,516	3.4%	91,625	2.2%
50 or more	0	0.0%	6,956	3.1%	124,948	3.0%
Mobile home	0	0.0%	11,069	4.9%	277,158	6.5%
Boat, RV, van, etc.	0	0.0%	25	0.0%	7,545	0.2%
Total:	3,384	100.0%	224,000	100.0%	4,234,279	100.0%

Source: U.S. Census, 2000

Table 11

Median Value of Owner-Occupied Housing, 2000 Ada Township and Surrounding Communities

Community	Median Value		
ADA TOWNSHIP	\$189,200		
Cannon Township	\$185,000		
Cascade Township	\$220,100		
Grand Rapids Township	\$166,300		
Vergennes Township	\$158,700		
East Grand Rapids	\$205,600		
Kent County	\$115,100		
Michigan	\$115,600		

Source: 2000 U.S. Census

Table 12Value Distribution of Owner Occupied 1-Unit Detached Housing, 2000Ada Township, Kent County and Michigan

Value Range	Ada Township		Kent County		Michigan	
Value Kange	Number	Percent	Number	Percent	Number	Percent
Less than \$100,000	183	6.4%	48,753	39.0%	936,251	41.3%
\$100,000 to \$149,999	761	26.8%	40,635	32.5%	603,454	26.6%
\$150,000 to \$199,999	548	19.3%	18,387	14.7%	339,716	15.0%
\$200,000 to \$299,999	637	22.4%	12,031	9.6%	252,044	11.1%
\$300,000 to \$499,999	509	17.9%	4,105	3.3%	104,079	4.6%
\$500,000 or more	200	7.0%	1,203	1.0%	33,631	1.5%
Total	2,838	100.0%	125,114	100.0%	2,269,175	100.0%

Source: U.S. Census, 2000

Average value per new single-family residence has steadily increased through most of this period, at a rate in excess of general inflation rates, indicating a trend toward larger, more expensive new homes.

Table 13Analysis of Housing Stock Age in Ada Township

Decade Built	# Homes Built in Decade	Cumulative Total	Cumulative %
1820's or prior	4	4	0.1%
1830's	3	7	0.2%
1840's	7	14	0.3%
1850's	13	27	0.7%
1860's	23	50	1.2%
1870's	26	76	1.8%
1880's	27	103	2.5%
1890's	33	136	3.3%
1900's	12	148	3.6%
1910's	30	178	4.3%
1920's	51	229	5.5%
1930's	59	288	6.9%
1940's	110	398	9.6%
1950's	211	609	14.7%
1960's	453	1062	25.6%
1970's	801	1863	44.9%
1980's	581	2444	58.9%
1990's	1017	3461	83.4%
2000's	691	4152	100.0%

Source: Ada Township Property Assessment Data, 2006

CHAPTER III NATURAL FEATURES

Overview

Natural systems comprised of air, land and water sustain a living community of plants, animals and microorganisms that ultimately maintain a human life-sustaining balance on our planet. It is these natural systems that maintain the balance of atmospheric gases we breathe and that maintain a pure supply of underground water, for example. A community's natural features also form a visual backdrop against which all components of our built environment are placed. It is the aim of Ada Township in its growth and development policies to protect our natural features, both for the important natural functions they perform in maintaining conditions suitable for human life, and for their important contribution to the character and attractiveness of Ada Township as a place to live, work and recreate.

To ensure that valued natural features are not irretrievably lost or excessively diminished in their quality, it is important to 1) identify the important natural features in the Township, 2) ensure that natural features protection is taken into account in overall community planning and 3) incorporate natural features considerations into the development regulations of the Township.

Some of the specific benefits of protecting and conserving natural features include:

- Provision of water for municipal water systems.
- Groundwater recharge and purification, providing a supply of clean, potable water for homes not served by a municipal water system.
- Flood control and surface water quality protection.
- Provide habitat for unique plant and animal life.
- Recreation opportunities that include hunting, fishing, snowmobiling, skiing, skating, swimming, sledding, hiking, nature study, photography and related pursuits.
- Aesthetic values (views, serenity, rural nature, etc.) which contribute greatly to property values in the Township.
- Educational opportunities (natural history, biology, geology, ecology, etc.).
- Economic opportunities in farming, forestry and tourism.

Environmentally sensitive natural features can either enhance or restrict development potential of land, depending on the type and severity of the feature. For example, a wooded hillside may provide a view which is very appealing as a home site. There may, however, be additional costs, both financial and environmental, of development in such an environmentally sensitive location. Erosion control measures during and after construction can increase development costs. Potential public costs include disruption of an attractive horizon view by obtrusive development, or disruption of surface stream quality by erosion and sedimentation.

The following description of significant natural features in Ada Township establishes the character of the Township's natural environment and sets the basis for the analysis of suitable future land uses. This analysis will help evaluate the vacant land within the township, determine the potential constraints to development which the environment presents, and suggest ways in which these features can best be protected and integrated into future development decisions.

Topography

The Natural Features Map, contained in the Appendix, identifies areas within the Township having slopes greater than 15%. Much of the land in Ada Township, particularly in areas bordering the Grand River and its major tributaries, is rolling-to-steep terrain. These areas, formed as glacial moraines, are often covered in second growth oak forest or maple-beech forest. Nearly level

terrain is found in two major areas of the Township - in the valley of the Grand River along its entire length through the Township, and in the northeast part of the Township, in upland glacial till plains. Nearly level to gently rolling terrain is also found in the southwest part of the Township, where some areas north and south of Cascade Road are poorly-drained. Topographic variation within Ada Township ranges from 620 along the banks of the Grand River to 883 feet at the intersection of Giles Avenue and 4-Mile Road; a vertical change in elevation of 263 feet.

Steep slopes and rolling hillsides, unlike groundwater, are not a renewable resource, nor do they have clearly defined public benefits like wetlands or woodlands. Topography is a geological feature which exists in a balance with vegetation, precipitation and wind. The maintenance of this balance helps prevent non-point source pollution of water resources while preserving a distinctive and attractive feature of the local landscape. It is this distinctive visual character provided by topographic relief which is important to Ada Township's character.

Areas of steep topography, because of their susceptibility to erosion and the physical disruption and alteration which often accompanies their development, are an environmentally-sensitive resource. In addition, ridgelines in steep terrain areas are often visually prominent for long distances. The manner in which development occurs in these areas can significantly affect the visual character of the community.

Despite higher development costs, rugged terrain is much in demand as a setting for residential development. Ada Township's rolling woodlands have become prime locations for homeowner's seeking proximity to nature, and seclusion from the hectic surroundings of urban environments.

These factors can result in a clash of competing interests, between satisfying the demand for attractive home sites, and protecting a sensitive environmental feature which is one of the Township's defining characteristics.

To protect this resource, overall planning for the Township should accomplish the following:

- limit land uses in steep terrain areas to those of low intensity, such as very low density residential development and recreational uses.
- encourage use of home site "clustering," (conservation design) techniques permitted under the Township's PUD zoning provisions, to set aside steep terrain areas as passive open space, and avoid placing home sites on prominent ridge lines.
- require responsible development of steeply-sloped areas by requiring the following as part of the development approval process:
 - accurate inventory mapping of existing topographic conditions.
 - site plan approaches which limit the extent of alteration of steep terrain.
 - site plan approaches which avoid placing building sites in locations which are visually prominent from long distances.
 - requiring that development plans identify suitable locations for main and reserve wastewater drain fields, without the need for extensive disruption of the terrain.

Surface Water

The Grand River is the most prominent surface water feature in Ada Township, running through the community from southeast to northwest. The Thornapple River passes through the Ada Village

area and joins the Grand River in the Township, downstream of the Ada dam, which creates an impoundment which extends into Cascade Township to the south.

With the exception of the Alticor facilities and low-lying portions of the Ada Village area, most of the land along either side of the Grand River in the Township is undeveloped, in either agricultural or other non-developed use. East of the Fulton St. bridge over the river, M-21 runs along the north side of the river, at the edges of the river floodplain on one side, and just below the steep hillsides which parallel the river valley. A broad swath of land adjacent to the Grand River is within the 100-year floodplain, a federally-defined area subject to periodic flooding, and also subject to floodplain development regulations. The floodplain is discussed more fully in a later section.

Several major creeks are tributary to the Grand River in the Township, the major named tributaries being Egypt Creek and Honey Creek north and east of the Grand River. Much of the land on either side of both of these creeks is rolling, wooded terrain. Upper reaches and branches of Egypt Creek extend through the Cannonsburg State Game Area, Egypt Valley Country Club and agricultural land in the northeastern part of the Township. Much of the land along Honey Creek is in very low density residential use.

Other minor tributary streams are found in the Township, such as Carl Creek in the southwest quadrant. It drains much of the industrial and residential land south of M-21, before crossing M-21 east of Alta Dale Ave. and leading to the Grand River north of Grand River Dr. Strawberry Creek is another small stream in the southwestern, more developed part of the Township, with a watershed that extends from the Forest Hills Central Middle and High School campus, through Adacroft Commons and Adatowne Subdivisions. The creek crosses M-21 near Grand River Dr. before entering the bottomlands of the Grand River. Significant development within the watersheds of Carl and Strawberry Creek have threatened the health of these streams, due to changes in the flow regime and due to sediment deposition in the stream beds. The Natural Features map identifies the major stream watersheds within the Township.

Many of these streams and their adjacent land, despite surrounding urbanization, still support a fishery resource and provide habitat for other wildlife. Much of the land in proximity to these streams has wetland characteristics. The streams and their adjacent wetlands serve valuable drainage, flood control and water purification functions, which can be disrupted if too overburdened by the increase in peak runoff rates and increased pollutant loads which often accompany urban development.

Ada Township has relatively few natural lakes, compared to other parts of Kent County. The largest lake in the Township is Chase Lake, east of Honey Creek Ave. at 3 Mile Rd. This 50 acre, eutrophic lake is nearly surrounded by a large wetland area. Two smaller lakes, including Down's Lake, are nearby.

Community land use planning must provide for the long-term protection of the valuable functions of the Township's stream corridors, by encouraging the maintenance of greenbelt corridors along major streams. Development regulations in the Township should ensure that land development activities provide protection of these resources, through the following means:

- ensuring that site development plans provide measures to limit peak runoff volumes after development to pre-development levels, through use of on-site storm water detention and retention facilities, as well as "low impact" development design measures that encourage natural infiltration of runoff into the ground.
- ensuring that site development plans provide for prompt revegetation of disturbed areas, and avoiding excessive slopes which will be prone to erosion.

- requiring appropriate setback of buildings from stream banks.
- encouraging provision of open space along stream corridors in new residential development.
- ensuring that site development plans provide measures to protect against spill and release of hazardous materials to the environment.
- prohibiting uses which may generate hazardous wastes in areas not served by public sewer.

In addition, the Grand River corridor through the Township has the potential to be part of a County-wide linear greenway, as encouraged in the Township Parks, Recreation and Open Space Plan.

<u>Soils</u>

In Kent County three major physiographic regions are recognized. The first region consists of outwash plains and lake plains in nearly level valleys with rather definite boundaries. These occur primarily in the lower portion of the county in the Wyoming and Grandville areas. The second physiographic region, which encompasses much of Ada Township, occurs as hilly morainic belts rising from the nearly level valleys and bordering the county's rivers and their tributaries. These belts are characterized by ridges with smooth or rounded slopes, and sharp steep knobs. Along major rivers, such as the Grand, these morainic belts can be 2 to 4 miles wide and along smaller streams are generally less than a mile wide. The third region consists of gently sloping to rolling till plains that are generally higher than the hilly morainic belts and outwash valley plains. Land in the northeast part of the Township, where much of the Township's farmland is located, is of this physiography.

A variety of soils occurs within these three major physiographic regions in the Township. Like topography, soil characteristics have a significant influence on the suitability of land for different types of uses. In particular, they influence the feasibility of development relying on on-site wastewater disposal systems. Soil properties also affect development costs, due to the varying capability of soils to support loads, and the need to appropriately design foundation structures and pavement sub-base.

Knowledge of soils associations is useful in identifying the general suitability of soils for different types of land use. Since much of the Township is outside of the water and sanitary sewer service area, soils have a significant impact on development patterns.

The Generalized Soils map identifies the 8 major soils associations found in Ada Township. The following descriptions give an overview of each association and its suitability for various types of uses. These interpretations are general in nature and should not be used as a substitute for onsite sampling and analysis of soil properties.

<u>Plainfield-Oshtemo-Spinks association</u>: Nearly level to gently rolling, excessively drained and well drained, sandy and loamy soils formed in sandy and loamy materials. This association has a slope of 0 to 12 percent and is used mainly as pasture or woodland or is idle land. A few areas are used for cultivated crops. If cultivated crops are grown, soil blowing, water erosion, and droughtiness are the major management concerns. The major soils are well suited to most kinds of building site development, but are only fairly well suited to septic tank absorption fields because of a poor filtering capacity which may result in ground water pollution.

In Ada Township, this association is found east of the Grand River, in the area along Pettis Ave., extending nearly to the north Township line. This area has witnessed significant mining of useful sand and gravel deposits in the last 50 years; much of the area that has been mined has reached or is nearing depletion of the useful mineral deposits, and is likely to be considered for redevelopment in the future.

<u>Ithaca-Rimer-Perrinton association</u>: Nearly level to gently rolling, well drained to somewhat poorly drained, loamy and sandy soils formed in loamy, sandy, silty, and clayey deposits. Slope ranges from 0 to 12 percent. Because of the wetness and the shrink-swell potential, the major soils are poorly suited to building site development. They are generally unsuited to septic tank absorption fields, mainly because of the wetness and slow permeability.

This association is found only in the far southwest corner of the Township, in an area known for its poor drainage.

<u>Marlette-Capac-Metamora association</u>: Nearly level to gently rolling, well drained to somewhat poorly drained, loamy soils formed in loamy deposits. Slope ranges from 0 to 12 percent. This association in used mainly for cultivated crops or orchards. If the soils are cultivated, controlling soil blowing and water erosion, removing excess water, and maintaining good soil tilth are the main management concerns. The major soils are poorly suited for building site development and are poorly suited or unsuited for septic tank absorption fields because of wetness and slow permeability.

This soil association occurs in the northeast part of the Township, where much of the Township's farmland is located. It extends westward across Honey Creek Ave. into the eastern end of the Egypt Valley Country Club. It nearly surrounds Chase Lake and its surrounding wetland areas.

<u>Marlette-Perrinton-Metea association</u>: Gently rolling to very steep, well drained, loamy and sandy soils formed in loamy, silty, and sandy deposits. Slopes range from 6 to 45 percent with the steeper areas generally along major drainage ways and streams. The major soils are well suited or fairly well suited to cultivated crops in areas where the slope is less than 12 percent. The steeper soils are poorly suited or unsuited for cultivated crops. The less sloping areas are fairly well suited for building site development, but the steeper soils poorly suited. All of the major soils are generally unsuited to septic tank absorption field because of moderately slow permeability or slope.

The area between Hall St. and Ada Dr., on either side of Fox Hollow Ave. falls in this soil association.

<u>Marlette-Chelsea-Boyer association</u>: Similar to the above; gently rolling to very steep, somewhat excessively drained and well drained, loamy and sandy soils formed in loamy and sandy deposits. Slopes ranges from 6 to 45 percent with less sloping areas occurring in drainage ways and along the tops of ridges. Steeper areas are generally along the major drainage ways and streams. The major soils are poorly suited or unsuited for cultivated crops because of droughtiness, soil blowing, water erosion, and slope. The less sloping major soils are generally well suited to building site development and fairly well suited to septic tank absorption fields. The more sloping soils are less well suited to building site development and generally unsuited to septic tank absorption fields.

Site specific soil conditions in this association vary greatly, due to the varying topographic and hydrologic conditions it encompasses. This soil association is found in a large area of the central portion of the Township, coinciding with the area in which much of the Township's rolling terrain is found.

<u>Chelsea-Plainfield-Boyer association</u>: Similar to the Marlette-Chelsea-Boyer association; gently rolling to very steep, excessively drained to well drained, sandy soils formed in sandy and loamy materials. Slope ranges from 6 to 45%, depending on location in relation to ridge tops and drainage ways. Characteristics of this association are very similar to the previously-described one, with suitability for development and on-site disposal systems very dependent upon slope and extent of excessive permeability.

This association is found in the southeast quadrant of the Township, in areas adjacent to Bailey Dr. and Vergennes Rd., extending north into the area between Conservation and 2 Mile Rd., east of Honey Creek Ave.

<u>Kibbie-Dixboro-Thetford association</u>: Nearly level and undulating, somewhat poorly drained, loamy and sandy soils formed in loamy, silty, and sandy materials. This association is on broad plains, in swales and on low ridges and knolls. Slopes range from 0 to 6 percent. The major soils are well suited to cultivated crops and pasture. The major soils are poorly suited to building site development and unsuitable for on-site waste disposal because of wetness and moderately slow permeability.

This soil association is found in a small pocket in the far northeast corner of the Township, in an area of agricultural land use.

<u>Houghton-Cohoctah-Ceresco association</u>: Nearly level, somewhat poorly drained to very poorly drained, mucky and loamy soils formed in herbaceous organic material or loamy alluvial deposits. Soils in this association are referred to as "muck" soils. This association is on flood plains along the major streams and rivers and in basin like areas. Slope are less than 2 percent. Land in this soil association is usually undeveloped open land, although some areas are drained and used for specialty crops such as lettuce, carrots, onions, and sod. When adequately drained, the major soils are well suited to cultivated crops and pasture. As expected, the major soils are unsuited to building site development and on-site waste disposal because of wetness, flooding, and the instability of the organic soils.

This association occurs along much of the west bank of the Grand River in the Township, east of Grand River Dr. The area occupied by Alticor's manufacturing facilities falls in this soil association.

Again, it should be emphasized that a variety of specific soil types and conditions are found within each of these broad associations. For example, small pockets of wetland and muck soils can be found within any of these associations. Nevertheless, these soil associations coincide with areas of recognizably distinct character and development adaptability in the Township.

<u>Wetlands</u>

The term "wetland" includes marshes, swamps, bogs, and similar areas that are often found between open water and upland land. Many, but not all of these areas are subject to State regulation under the Goemaere-Anderson Wetland Protection Act of 1979.

Wetland inventory mapping contained in the Appendix was prepared by the Michigan Department of Environmental Quality. Areas mapped as potential wetland are an overlay of the following sources of information:

- 1. The National Wetland Inventory (NWI), conducted by the U.S. Fish and Wildlife Service through interpretation of topographic data and aerial photographs.
- 2. Land Cover, as mapped by the Michigan Department of Natural Resources' Michigan Resource Inventory System (MIRIS), through interpretation of aerial photographs.

3. Hyric soils, as mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service. These are soils that are saturated with water, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile.

The inventories represent existing information that suggests the probability that a wetland may or may not exist in a given area. Areas shown as wetlands, wetland soils, or open water on the map are potential wetlands, and deserve further site investigation to verify if wetlands are actually present. The map may not identify all potential wetlands in the Township. It may show wetlands that are not actually present and it may not show wetlands which are actually present.

An extensive area of wetlands is found in a very large area surrounding Chase Lake, near 3 Mile Rd. and Honey Creek Ave. Other extensive wetland areas are found along the major and minor streams in the Township. Examples include land along Carl Creek, the Strawberry Creek corridor north of St. Roberts Church and east of Adacroft Commons, and the extensive wetlands found along Honey Creek and its tributaries in Seidman Park.

In the past, wetlands were often regarded as wastelands--sources of mosquitoes, flies, and unpleasant odors. Most people felt that they were places to be avoided, or better yet, eliminated. This negative view, combined with the demand for more developable land, has resulted in the destruction of some of the township's poorly drained lands. These areas have been drained and converted to farmland, industrial use, or filled for housing development. Of the estimated 11 million acres of wetlands that stood in Michigan 150 years ago, 3 million acres remain. Since there is little historical data on wetland identification, it is not possible to estimate the total loss of wetlands within Ada Township.

Because they occur where the dry land meets the water, wetlands play a critical role in the management of the township's water-based resources. Acre for acre, wetlands produce more wildlife and plants than any other Michigan habitat type. Michigan boasts about 2,300 native plant species; 50 percent of these are wetland species and over 25 percent of the wetland species are threatened or endangered.

Other benefits of wetlands include the following:

- They help reduce the extent of flooding by absorbing runoff from rain and melting snow and slowly releasing excess water into rivers and lakes. (A one-acre swamp, when flooded to a depth of one foot, contains 325,851 gallons of water.)
- They filter pollutants from surface runoff, trapping fertilizers, pesticides, sediment and other potential contaminants, and help to break them down into less harmful substances.
- They contribute to recharge of groundwater supplies when connected to underground aquifers.
- They form part of the natural nutrient and water cycles, and produce vital atmospheric gases, including oxygen.
- They provide commercial and recreational value to the economy, by producing plants, game birds and fur-bearing mammals. Survival of many varieties of fish are directly connected to wetlands, as they require shallow water areas for breeding, feeding and escape from predators.
- Wetlands also contribute to the open, natural character of Ada Township, by providing natural areas of open space interspersed with developed land. Wetland areas can provide

a valuable site design element in residential development, providing separation between neighboring properties and attractive natural areas which serve as a property valueenhancing amenity.

In Michigan, the Goemaere-Anderson Wetland Protection Act (Act 203 of the Public Acts of 1979) provides for the statewide preservation, management, protection, and use of wetland areas. Wetlands having an area of at least five acres in size, or those that are contiguous with a lake or stream are subject to State regulation. The Act requires a permit from the Department of Natural Resources (DNR) for activities such as filling, dredging, and draining.

Floodplains

Floodplains are relatively flat stream valley floors which are periodically overrun by the stream at high water after heavy rainfall or rapid snowmelt within the stream's watershed area. The 100-year floodplain within Ada Township has been determined by the Federal Emergency Management Agency (FEMA). These areas, subject to a 1 in 100 or greater chance of flooding in any year, are located along the Grand River and are identified on the Natural Features map.

Land within the 100-year floodplain is subject to restrictions on development under provisions of the Township Floodplain Development Ordinance, as well as Michigan Department of Environmental Quality regulations. Administration and enforcement of floodplain development regulations by the Township is required in order for property within the Township to be eligible for participation in the Federal Flood Insurance program. These regulations are intended to ensure that construction within floodplains is protected against flood damage, and will not impede flow of flood waters and cause more severe upstream flooding. Habitable structures must have the lowest floor level, including basement, located above the 100-year flood plain elevation. In addition, both the Township and State floodplain development regulations require that a permittee create compensating storage volume within the floodplain to offset the loss of flood water storage volume caused by placement of fill in the floodplain.

<u>Woodlands</u>

While regulatory programs apply to certain critical environmental areas, such as floodplains and wetlands, this is not the case with woodlands, even though they also provide important environmental benefits. They are buffers and moderators of flooding, climate, erosion, noise and air pollution. Significant woodland areas within the Township are shown on the Forested Lands map in the Appendix.

Ada Township's wooded areas give the community a rural charm many residents and visitors find particularly attractive. Woodlands also have other values which cannot be measured in board feet, such as providing wildlife habitat and recreational opportunities, moderating climate, enhancing air quality and filtering and buffering noise. Woodlands are important protective features for watersheds and soils. Forest vegetation moderates the effects of winds and storms, stabilizes and enriches the soil, and slows runoff from precipitation, thereby allowing it to be filtered by the forest floor before percolating into groundwater reserves. By decreasing runoff velocity and increasing groundwater infiltration, woodlands also help to regulate flooding.

<u>Groundwater</u>

Almost one-half of the State's population, and much of Ada Township's population, relies upon groundwater as the source of drinking water. Despite this dependence, there is little public understanding of the nature and importance of groundwater. One widely held misconception is that groundwater flows in huge underground lakes and rivers. Another is that groundwater travels very rapidly or that it's direction follows the earth's contours. Of all of the common

misconceptions, perhaps the most dangerous ones are that groundwater is adequately protected by the earth's surface and that activities on the land surface have little impact on this resource. In reality, groundwater quality can be easily affected by human activities on the surface.

Like most other natural resources, groundwater is more vulnerable in some areas than others. This vulnerability is determined by three main factors: soil type, depth to the aquifer and general aquifer condition and type. Sandy soils offer considerably less protection from surface impacts than heavier clay soils. Confined aquifers are safer than unconfined ones. Through a better understanding of the nature of groundwater, more effective protection measures are possible.

In Ada Township, the depth to groundwater and extent of protection of groundwater supplies by impermeable geologic strata varies considerably throughout the Township. In most areas, groundwater relied upon for water supplies are sufficiently deep that they are well protected by impermeable layers from surface contamination. In some areas, however, shallow groundwater is overlain by highly-permeable sandy soils - a situation which creates groundwater contamination risk by above-ground activities. Fortunately, there have been no reported widespread problems of well water contamination by elevated nitrate levels in Ada Township, according to the Kent County Department of Environmental Health. Nitrate contamination is the most commonly-encountered pollutant of vulnerable aquifers, resulting from septic system drain field leachate, agricultural and residential fertilizers and farm animal waste.

In areas that offer little natural protection, or where the protection level is unknown, special consideration should be given to the types and densities of land uses which are permitted. Businesses such as vehicle repair and service facilities, dry cleaners, photographers' darkrooms and hair salons are examples of land uses that should be located only in areas served by public sewer, due to the types of chemicals which are routinely used. If these businesses rely on on-site waste water disposal drain fields, the chance of groundwater contamination, through an accidental spill or improper disposal, is especially high.

Even land use activities generally thought to be environmentally sound, such as golf courses and manicured residential lawns, can be potential groundwater hazards if the use of lawn chemicals is not properly managed. In addition to carefully considering the types of land uses which are to be allowed, the following list offers other local protection measures:

- Require as part of site plan applications information about hazardous substances to be used, stored or generated by the proposed land use activity. Relevant information should include presence and ultimate outlets of floor drains, content and storage of chemical containers, and disposal procedures for any chemicals used.
- Regulations requiring spill prevention and secondary containment of hazardous substances should be required at new business sites which may be of such a size that exempts them from State regulation.
- New businesses should be required to obtain a Pollution Incident Prevention Plan (PIPP) from the Michigan Department of Natural Resources. PIPP Plan submittal should be a precondition for site plan approval.

Groundwater protection is a true example of "an ounce of prevention being worth a pound of cure." Low-cost contamination prevention measures can help protect against a spill or leak which could ultimately require costly remediation by a property owner or community.

High Quality Natural Communities

Two sources of inventory information, one at a statewide level, and one specific to Ada Township,

contain information regarding sites within the Township which have high quality natural plant communities.

Michigan Natural Features Inventory:

In 1992, the Michigan Natural Features Inventory program of the Michigan DNR Wildlife Division conducted an inventory of natural areas in Kent County. This inventory identified a total of 25 high quality natural area sites in the County. Three of the 25 sites are located in Ada Township. They include natural prairie fen and inundated shrub swamp adjacent to Chase Lake, a small (3-acre) hillside prairie on a steep hillside west of Grand River Dr., and a southern mesic forest containing red, white and black oak, as well as sugar maple and American beech located between Pettis Ave. and the Grand River, north of Knapp St. There are several other areas of mature forest with high species diversity in the Township, that were not included as part of this inventory.

Natural Areas Inventory Conducted by Calvin College, 2006:

As part of the Township's preparation of the initial Open Space Protection Plan in 1999-2000, a broad-brush inventory of high quality natural areas was conducted by two biologists and a team of undergraduate research assistants. In 2006, this work was supplemented by a more complete inventory using a more thorough screening protocol, with the same project leadership from Calvin College. The purpose of the survey was to identify high quality natural areas according to criteria that are focused on plant community composition and integrity. A combination of published data sources and field surveys were used to identify sites of high plant diversity representative of both historic and contemporary Michigan plant communities. Sites of potentially high botanical diversity were surveyed in 30 sections of the Township (plus one site in the additional southeast section). From this review a total of 17 sites, which included land that is located in 20 sections, were visited for an in-depth inventory. This inventory yielded the following summary results:

• From all the surveyed parcels 15 different plant communities recognized by the Michigan Natural Features Inventory were identified. 60% (9/15) of the community types encountered were wetland communities. 43% of the actual community type occurrences found (45/105) were upland communities (prairie and forest).

• A total of 771 plant species were identified from the 17 highest quality sites. Eighty two percent of those species are Michigan natives; the remainder are species introduced to the area since European settlement.

• Of the total species count, 168 (22%) were found at only one site in the Township, indicating that a significant portion of the plant biodiversity in the Township is quite limited in distribution and of tenuous status.

• Among the species identified, ten are listed by the State of Michigan as special concern, threatened or endangered because of their state-wide rarity and limited distribution. These species were identified on 9 different properties.

• Among the species identified, 25 of the native Michigan plants were new records for Kent County.

• A somewhat alarmingly high 23 non-native species were also recorded as new species for Kent County, suggesting a relatively recent origin.

• The measure used to assess the ecological integrity of sites in this survey, the floristic quality index (FQI), ranged from 47.8 to 75.9. According to the Michigan Department of Natural Resources, values above 35 indicate communities with biodiversity of statewide significance and

are considered to be unmitigable. Values above 50 indicate sites that are very rare and contain a significant component of Michigan's natural biological diversity. Of the highest quality sites in Ada Township, 15 of 17 (88%%) were higher than 50. Preservation of the biodiversity of these sites should be made a high priority.

Because many of the sites studied in the 2006 survey lie in close proximity to each other or connect to natural and man made corridors (such as railroad lines, power line right-of-ways, etc.), these sites have the potential of contributing to a network of high quality natural areas in the Township. The contemporary term for such a network is 'green infrastructure', calling attention to the fact that a livable, functioning natural environment depends not only on planned development of the built environment but also the planned conservation and restoration of a system of natural areas as well.

Ada Township still holds the opportunity to protect large areas with mostly natural cover to serve as hubs in a green infrastructure. Such hubs should be built around high quality core areas such as those detailed in the Calvin study. To draw conserved and protected areas into an overall infrastructure, corridors should be created and protected to link those hubs. As planning proceeds in Ada Township, attention to the protection of existing natural areas and the creation of effective landscape corridors between natural areas should be a major consideration in all future planning decisions.

Figure 3 identifies the elements of a green infrastructure network that were identified by the Calvin College team.

In addition, the Inventory of Existing Open Space map contained in the Appendix identifies lands that have a high degree of commitment to open space use, either by virtue of public ownership, status as common open space in a development, or permanent restriction on development in a recorded conservation easement.

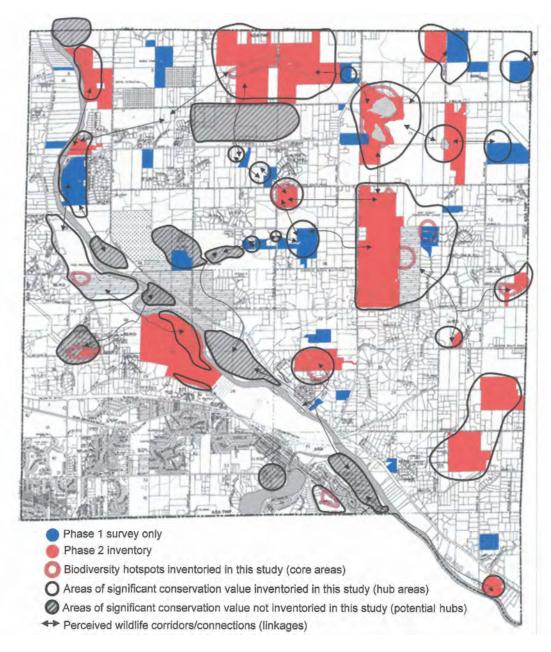


Figure 3 – Potential Green Infrastructure Network in Ada Township

CHAPTER IV EXISTING LAND USE

Understanding existing land use patterns and the factors which influence land use trends in the Township is important to the development of realistic, achievable land use plans for the future. The attractive natural features found in Ada Township are the setting for a varied existing land use mix, ranging from agriculture to large scale manufacturing. Following is a summary description of current land use in Ada Township, as depicted on the Existing Land Use map in the Appendix.

Agriculture:

Ada Township has historically not been one of the most important areas of agricultural production in Kent County. Over 500 acres of land in the Township has been removed from the State of Michigan's Farmland and Open Space Preservation program since 1990, for example. However, there still remains a significant amount of land in either active farming use, or that is currently idle but capable of agricultural production.

The majority of the Township's remaining farmland is in the far northeast portion of the Township, primarily in Sections 1, 2 11 and 12. Agricultural land in this area is part of a larger concentration of agricultural lands that extends into the other three townships that lie to the north and east of Ada Township – Cannon, Grattan and Vergennes Township. This broader area has been identified by Kent County as a priority area for permanent preservation of agricultural land through the Kent County Purchase of Development Rights program. There are also several large parcels in agricultural use in the Grand River floodplain, along both Pettis Ave. and Grand River Dr. Agricultural land use in 2003, as mapped by the Grand Valley Metro Council, is identified on the Agricultural Lands Inventory map in the Appendix. This map also identifies lands currently enrolled in the PA 116 Farmland and Open Space Preservation Program, with the expiration date of the PA 116 agreement between the property owner and the State noted. Most of the land enrolled in the PA 116 program is located in the far northeastern portion of the Township.

Agricultural production in the Township includes land in corn and soybeans, forage crops, land used for grazing of livestock, a small dairy cattle operation, and several fruit orchards. Maintaining viable agricultural lands in the Township contributes to the economic diversity of the area, helps lessen the demands on the infrastructure and financial resources of the Township and other units of government that would result from loss of these lands to low density suburban development, and adds to the desirable rural character of the community.

Residential:

Over 96% of all housing units in the Township in 2000 were detached, single-family units, according to the 2000 Census. There has been a slight increase in the diversity of housing types in the Township compared to 1990, when over 98% of the housing units in the Township were detached, single-family units. The construction of 100 attached condominiums in the Clements Mill development is largely responsible for this modest change in the makeup of the Township's housing stock. Plans have been approved and construction is expected for an additional 57 attached condominiums in the Clements Mill development, and 210 apartment units known as Stone Falls, on the east side of Spaulding Ave. south of the rail line.

Residential neighborhoods of an urban character are concentrated in the southwest quadrant of the Township, where public water and sewer service are available. Development densities in this area are typically in the range of 2 to 2.5 homes per acre, on a gross density basis. Older residential neighborhoods on both sides of Cascade Road in the far southwest corner have somewhat higher density of about 3 units per acre. The neighborhood located between Ada Drive and Cascade Rd. consists predominantly of housing constructed between 1950 and 1980. This

neighborhood continues to the west into Grand Rapids Township.

The largest single-family subdivisions in the Township, north of Ada Dr., were developed and built out in the 1970's and 1980's. In the 1990's, most of the housing construction in the urban portion of the Township has taken place in three developments: Clements Mill, a 200-acre development with over 280 single-family homes, 96 attached condominiums, and approximately 280 apartment units to be developed in the future. The condominium and detached single-family portions of the development are now completed; Ada Moorings, located immediately east of the Ada Village area off Grand River Dr., with over 180 homes; and West Village, a 150-home development on the north side of Ada Dr., west of Spaulding Ave.

Residential development north of M-21 and east of the Grand River is more rural in character. Through the end of the 1980's, the Greentree Farms subdivision south of Conservation St. was the only planned residential subdivision of significant size in this part of the Township. The balance of residential land use in this area was on large, multi-acre parcels, a few smaller, 1-acre lot splits along major roads, or farmsteads. Within the last 10 years, several new planned developments have been built, many using condominium form of ownership of single-family home sites, served by private roads owned in common by the homeowners.

Multiple family development in the Township is currently limited to 41 attached condominium units in 4-6 unit buildings in the Country Homes of Ada development, on the north side of Fulton St., west of the Ada Cemetery, 36 rental town home units in the Ada Place Town Homes, on the north side of Cascade Rd., west of Spaulding Ave., and 96 condominium units in the Clements Mill development.

Commercial:

Ada Township experienced little of the rapid commercial growth experienced by other West Michigan suburban communities in the last 20 years. This is due in large part to the expressed preferences of the community for limited commercial growth and the small amount of suitable land for large scale commercial use.

Commercial uses are concentrated in the Ada Village area, which serves as the service and convenience retail center of the community. Major retail and service uses in the Village include banks, hardware store, restaurants, cafes, dry cleaning, dental and optometric services, hair salons, day spas and barber shop, real estate, accounting and insurance offices. There are also several specialty retail shops in the Village area catering to a destination clientele. In addition, a number of small professional offices are located in the Village area.

There are several small commercial nodes on Fulton St., such as the Kulross/M-21 intersection, where a convenience grocery store/meat market/deli and a building materials center are located, as well as the Ada Hillside Center on the north side of Fulton St. Another small commercial node exists east of the Grand River on the south side of Fulton St., where the Ada East Business Center, a tavern and a small office building are located. A self-storage facility and a mini-warehouse development called Ada Landings are also located here.

There are a few other isolated commercial uses in the Township, including the following:

- a small grocery store at the northwest corner of Egypt Valley Rd. and Knapp St. in the north end of the Township
- the Lena Lou restaurant and bar at Honey Creek Ave. and Pettis
- Ada Body Shop, north of Fulton St., west of Carl Dr.
- B. J. Roark's Landscape Center on Fulton St. at the eastern boundary of the Township.

In general, the concentration of commercial uses in the Village Area contributes to the uncluttered appearance of the M-21 corridor, and smooth traffic flow along the highway.

Office and Service Uses:

Office and service uses in the Township are concentrated along both sides of Cascade Rd., from Spaulding Ave. west to the Township line, and along the west side of Spaulding Ave., north of Cascade Rd. Uses in the area include banks, small medical offices, a photographer's studio, mortgage lender's offices and other miscellaneous small professional offices. Several churches are also located along the Cascade Rd. corridor, intermixed with the office uses. There has been a considerable amount of office center development along Cascade Rd. in the last 10 years.

As noted earlier, there are also several small office uses in the Ada Village Area, including the Township Hall. Although the area is zoned Industrial, there are also several office uses along the south side of Fulton St. west of Kulross Ave. The largest concentration of office use in the Township is the Alticor Corporation World Headquarters on Fulton St.

Industrial:

Ada Township has a significant manufacturing/industrial land use base, much of which is the facilities of the Alticor Corporation. Alticor's manufacturing facilities occupy approximately 300 acres between Fulton St. and the Grand River. An additional 100 acres is occupied by the Alticor Catalog Distribution Center on the west side of Spaulding Ave., south of the Grand Rapids Eastern rail line. Aside from Alticor's facilities, a number of smaller industrial land uses are also found along the south side of M-21, from Kulross Ave. west to Alta Dale. Some uses which are more properly categorized as office or service uses are also found along M-21, including an auto repair facility and several contractor's offices and equipment yards.

In 1998, one of the Township's oldest industrial facilities, the Ada Beef Co., a beef cattle slaughterhouse and processing facility, terminated its operations on Grand River Dr. Ada Township acquired the 230 acres of Grand River corridor land formerly owned by the company, and has converted it to Roselle Park. A long-range Master Plan for the property provides for mostly passive recreational uses of the site, with emphasis on enhancement of the site's natural features and wildlife habitat.

Public/Semi-Public:

This land use category includes churches, public and private schools and facilities of local government. It also includes the major overhead power transmission lines and electrical substations in the Township.

About 2/3 of the Township is within the Forest Hills School District, with the remaining nearly 1/3 served by Lowell Area Schools. A very small area west of the Grand River in the northwest corner of the Township is in the Northview Schools district. Only the Forest Hills District has school buildings located within Ada Township.

The Forest Hills Central High School and Middle School, collectively serving over 1,500 students, are located in the southwest part of the Township, between Hall St. and Ada Dr. Forest Hills Central Woodlands School, serving about 600 students in Grades 5-6, is located on Alta Dale Ave., south of Fulton St.

Ada Vista Elementary School and Ada Elementary School, both public schools, are located just south of the Ada Village area. Ada Christian School is a K-8 private primary school located near the southwest corner of Ada Dr. and Fox Hollow Ave.

The Forest Hills Eastern campus, developed in 2002-2003 and first occupied in Fall, 2004 on 100 acres at the southeast corner of Knapp St. and Pettis Ave., includes the Eastern High School and Eastern Middle School.

Park, Recreation, Open Space:

Public and private parks and recreation facilities are identified on the Existing Land Use map. A complete inventory map and description of these facilities is contained in the following section of this report.

Resource Processing:

Rieth-Riley Construction Co. conducts gravel crushing and screening and asphalt manufacturing at a site on Pettis Ave. Pettis & Associates owns property used for a concrete crushing operation adjacent to the Reith-Riley facilities. Both of these operations have been the subject of litigation between their owners and Ada Township over the lawfulness of these operations.

Vacant Land:

Land placed in this category is intended to show parcels of 40 acres in size or more, which are not in current farm use.

CHAPTER V COMMUNITY FACILITIES

Roads and Transportation

Road Types and Functions:

The road system in Ada Township is comprised of both public roads and private roads. This Plan is concerned primarily with the public road system in the Township, which is under the responsibility and jurisdiction of either the Kent County Road Commission or the Michigan Department of Transportation, in the case of Fulton St. (M-21). Several residential developments in the Township, many of them under condominium ownership of home sites, are served by private roads. Ownership and maintenance responsibility for these rests with the property owners whose lands are accessed by the private roads. The Township Zoning Ordinance contains regulations which govern the location and design of these private local access streets.

The public roads in the Township cover a wide range of roadway types and functions, ranging from the regional arterial, 4-lane divided M-21, to local rural roads which are 22 feet wide and gravelsurfaced. Roadways can be classified in a hierarchy according to their predominant function. Functional classification is based on the two-fold purpose of the road system: first, to move traffic from one location to another; and second, to provide access to property which adjoins the road. Most roads serve both of these purposes, to varying degrees, with one or the other the dominant function. Functional classification categorizes roads according to which of these two purposes is dominant for a given road. The categories and functions of components of the Township's public road network are as follows:

• Regional Arterial:

The primary role of regional arterial roads is movement of traffic through the Township. Providing access to adjoining property is of minor importance. Traffic speeds in this classification are high (50 mph +). Additional characteristics include high traffic volumes, long roadway length, multi-lane cross-sections, no on-street parking and limited use of traffic control devices, or preference in signalization for major thoroughfare traffic movement. Access to driveways and intersecting streets may be provided only indirectly or in a restricted manner. M-21 (Fulton St.) and Cascade Road are the only two regional arterial roads in the Township. Proper management of the number, location and design of access driveways along regional arterials is important to maintain the safety, efficiency and capacity of these major roads.

Local Arterial:

Movement of traffic within the Township remains the more important of the two functions for this category of roadway. However, access to adjoining property is of higher importance than in the case of Regional Arterials. Traffic signalization is more frequent, and operating speeds are lower. Many, but not all of the roads in the Township in this category are also classified as "Primary Roads" by the Kent County Road Commission. Examples of local arterial roads include Ada Drive, Spaulding Avenue, Honey Creek Avenue, Thornapple River Drive and Vergennes Street.

Collector Streets:

Collector streets serve the dual functions of mobility and access. They collect traffic from a network of local streets, and link the local street network to streets of higher classification, while also providing access to adjoining properties. Examples of collector streets in the Township

include Adaway Dr. in the Adacroft Commons subdivision, Scarborough Dr. in the Ada Woods subdivision and Rix St. between Kulross and Ada Drive.

• Local or Neighborhood Streets:

The major function of local streets is providing access to adjoining property. Therefore, route continuity and limiting the number of access points are of negligible importance. Local streets carry little or no through-traffic, and their design should not encourage through-traffic. Most streets in platted subdivisions and the gravel-surfaced roads in the Township fall in the local street category.

A second, simpler road classification is the County Road Commission's classification of County roads as either "Primary" or "Local" roads. This classification is used uniformly by all Counties in the State, in accordance with Michigan DOT requirements. The County receives a higher level of funding per mile from the State for primary roads than for local roads. Primary roads are roads which are of greatest importance to traffic circulation in the County, to effectively serve major traffic origins and destinations. Improvement needs for primary roads are financed in total by the County, with available State assistance. Local road improvement needs are funded by a 45% contribution from the County, and 55% from the local government jurisdiction, by established policy of the County.

Description of Township Road Network:

Fulton St., a State trunk line highway (M-21) is the major east-west traffic route in the Township, connecting Ada Township to the greater Grand Rapids metropolitan area to the west, and to the Interstate Highway system. M-21 extends east from Ada Township through the cities of Lowell, Saranac and Ionia, and eventually, to the Flint area.

From the west Township boundary east to Kulross Ave., Fulton St. is a 4-lane divided highway, with paved shoulders. From Kulross east to the Grand River, there is a 5-lane cross-section, with curb and gutter. East of the Grand River is another short segment of 4-lanes with median. From a point just west of Bennett, the highway is a 2-lane facility. Traffic signals are located at the Spaulding Ave., Bronson St., Ada Dr. and Pettis Ave. intersections.

Fulton St. is heavily used by commuters to the Grand Rapids area from Ada Township and areas further east. It is also heavily traveled by employees and visitors to Alticor Corporation's manufacturing facilities, world headquarters offices, and catalog distribution center, including substantial volumes of truck traffic. Most recent traffic counts on the most-heavily traveled portion of M-21 between Ada Dr. and Pettis Ave. was 29,050 vehicles per day in 2004, up from 23,500 vehicles per day in 1989. A rather high proportion of the traffic volume passing through the Fulton St./Pettis Ave. intersection is turning traffic that is either turning from southbound Pettis Ave. on to westbound Fulton St., or from eastbound Fulton to northbound Pettis. This is underscored by the fact that Fulton St. traffic at Bennett St. in 2005 was only 11,800 vehicles per day in 2005, while the count on Pettis Ave. north of M-21 in 2004 was 15,056 vehicles per day. The recent institution of indirect left turns and a very long left turn storage lane for eastbound Fulton St. traffic going northbound on Pettis Ave. was necessitated by the volume of traffic traveling the Fulton-to-Pettis route.

The remaining major east-west roads in the Township include Ada Dr., Knapp St., Vergennes St. and Bailey Dr. Ada Dr. serves as a major collector route in the Township, serving the more densely-developed portion of the community. Ada Dr. connects the Ada Village area to the Forest Hills area. It also provides access to several churches along its length, as well as the Forest Hills

Central Middle School. Traffic volume on Ada Dr. east of Fox Hollow Ave. was about 8,000 vehicles per day in 2003.

Knapp Street provides the second means of crossing the Grand River in the Township. It also is used by commuters to the Grand Rapids area from points further east. 1992 traffic volumes east of Pettis Ave. were 2,900 vehicles per day. Traffic volume on Knapp St. has grown significantly since the opening of the Forest Hills Eastern school campus on Knapp St. at Pettis Ave. Counts taken in 2004 indicate a volume of 13,986 vehicles per day, east of Grand River Dr.

Vergennes St. and Bailey Dr. both extend from their point of convergence near Pettis Ave. near Fulton St. all the way east to Lincoln Lake Ave., north of the City of Lowell. These two roads are also used by residents of areas to the east of Ada Township in Vergennes Township. Vergennes St. also serves the Lowell High School campus, located 3 miles east of the Township line. 1992 traffic volumes on Vergennes St. were about 2,800 vehicles per day. This count was taken before the construction of the new high school. In 2004, traffic counts indicated a volume of 9,545 vehicles per day, on Vergennes St. east of Bailey Dr.

Although its length extends only 1 1/2 miles, Hall St. on the south boundary of the Township is also a significant east-west street, as it provides access to Forest Hills Central High School. A 2003 traffic count indicates a volume of 4,618 vehicles per day.

Major north-south travel routes in the northern, more rural part of the Township include Grand River Dr., Pettis Ave., Honey Creek Ave. and McCabe Ave. All four of these paved roads extend north to Cannonsburg Rd. in Cannon Township. Traffic volumes on these streets are in the range of 1,000-5,500 vehicles per day. Pettis Ave. receives heavy truck traffic between Fulton St. and Knapp St., due to the resource processing and asphalt manufacturing operations located in this area. Many of the roads in the northern part of the Township have sections of severe grades and limited sight distances from adjacent properties.

In the southern, more urbanized portion of the Township, major north-south routes include Spaulding Ave., Thornapple River Dr. and Buttrick Ave. Spaulding Ave., in the southwest part of the Township, connects Fulton St. to Cascade Rd., and continues south to Burton St. in Cascade Township. It is used for longer trips between the Ada and Cascade areas, including travel to the southeast end of the 28th St. commercial corridor. Spaulding Ave. also provides access to the Alticor Catalog Distribution Center, located just south of the Central Michigan rail line. All truck traffic to the facility is via Fulton St. Traffic volumes measured in 2003 along Spaulding Ave. ranged from 8,000 vpd north of Ada Dr., to 13,000 vpd south of Ada Dr.

Thornapple River Dr. is also a heavily-traveled north-south road, with 11,887 vehicles per day counted in 2005. This road is one of the few north-south routes connecting the Ada area to the Cascade area.

Traffic counts available from the Michigan Dept. of Transportation and Kent County Road Commission are summarized on the Traffic Counts map, located in the Appendix.

Road Network Problems and Limitations:

The existing and planned roadway network is an important consideration in future land use planning for the Township, given the major financial investment needed for road infrastructure improvements, and the impact of land use decisions on traffic. Current problems and limitations of the Township's road network which should be considered for future planning include the following:

- The Grand River represents a barrier to east-west traffic movement, as only two river crossings exist in the Township M-21 and Knapp St.
- Routes for north-south travel between Ada and Cascade area are limited as well. Thornapple River Dr. traffic volumes between Ada and Cascade are near capacity. This route is used heavily by commuters from Ada Township and areas further to the north and east to the employment center in the Southeast Metro area. Improvements to north-south traffic circulation are needed, to ease the traffic burden through the Village and on Thornapple River Dr. The proposed Snow Avenue bridge across the Grand River, linking M-21 east of Ada to Snow Ave. in Cascade Township, would meet a pressing need for improved north-south circulation.
- Routes for north-south traffic movement between Fulton St. and Ada Dr. are limited between the Ada Village area and Spaulding Ave.
- roads north of Fulton St. are fairly lightly-traveled, although the confluence of several roads at M-21 and Pettis results in high peak-hour traffic volumes at the Pettis Ave./M-21 intersection.
- traffic congestion occurs in the Ada Village area at peak travel times; numerous driveways, some poorly-located, contribute to this congestion.

Recommended improvements to address these needs are discussed in the Community Facilities chapter.

Public Transit:

Ada Township is not served by fixed route public transit service. The Interurban Transit Partnership (ITP) does provide on-demand transit service to the Township through its "GOBUS", dial-a-ride service.

<u>Air Travel:</u>

Ada Township is within the area of influence of one major public use airport, one private use airport, and a private use helipad site. Land use planning in the Township should consider these facilities and seek to avoid land uses that may conflict with existing and future aircraft operations, based on either safety or noise considerations. The Municipal Zoning Act requires such consideration.

The Act requires that the Township "incorporate the airport layout plan or airport approach plan" into the Township Master Plan. Although the Act does not require absolute conformity between local government zoning and airport plans, it does require that any future changes in zoning rules or variance approvals "not increase any inconsistency that may exist between the zoning or structures or uses and any airport zoning regulations, airport layout plan, or airport approach plan."

The Gerald R. Ford International Airport is located in Cascade Township, approximately 3 miles south of Ada Township. Ada Township is within the approach zone of the airport's 8,500 foot north south runway, which was opened in 1997.

Kent County has adopted the Kent County Airport Zoning Ordinance, under the provisions of the Michigan Airport Zoning Act, which limits the height of structures within the vicinity of the airport.

These regulations have the same legal force and effect as the Township's zoning regulations, and apply to land within the Township in addition to Township zoning regulations. Therefore, the height of any structures that fall within both jurisdictions must comply with both ordinances. In addition, the Municipal Zoning Act provisions cited above concerning increasing any inconsistency between Township zoning and the airport zoning rules applies to Ada Township.

Figure 4 outlines the areas within the Township that fall within the Airport zoning height restrictions. The height limit is a sloped surface (conical shape) extending out from the airport to a limit which encompasses the southern one-third of the township. Structures within this area are limited to 1,060 feet above mean sea level near the southern Township border to 1,294 feet at the outer edge of the sloped surface. The height-limited area extends further to the north to include nearly all of the northern portion of the Township, at a constant height limit of 1,294 feet.

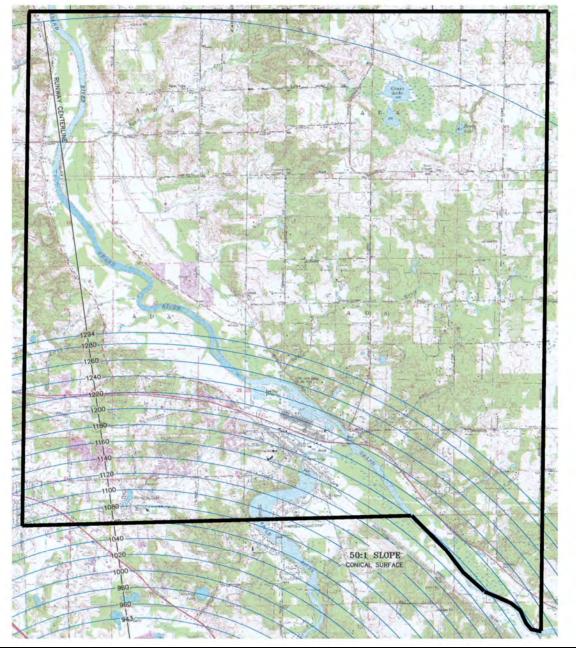


Figure 4 - Gerald R. Ford International Airport, Portion of Airport Zoning Plan

Whenever a tall structure is proposed within the Township, communication and coordination with the Kent County Department of Aeronautics should be established to ensure that structures within the Township meet both Township zoning requirements and the requirements of the Airport Zoning Ordinance.

The Somerville airport is a private, grass airstrip located immediately south of Ada Township's border, between Thornapple River Dr. and Buttrick Ave. The runway parallels the Township boundary in an east-west orientation. At one time this facility was classified by the State as a public use airport, but it has since been changed to a private use designation. Consequently, it no longer is subject to a State-approved "Airport Approach Plan," and Township plans and regulations are no longer subject to the airport-related provisions of the Zoning Enabling Act. However, the previously-applicable Approach Plan, depicted in Figure 5 below, should be used by the Township as a guide in establishing compatible land use regulations within the airport's flight path.

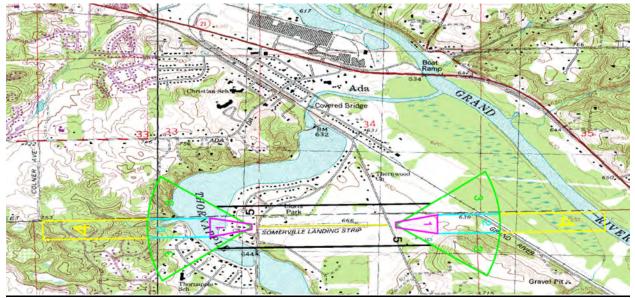


Figure 5 - Somerville Airport, Airport Approach Plan

Both of the above-referenced Approach Plans identify numbered sub-zones 1 through 5. Guidelines pertaining to appropriate land uses and planning strategies within each sub-zone have been prepared by the Michigan Aeronautics Commission, for use by local governments. With regard to the Gerald R. Ford Airport, the only types of structures and land uses that are likely to be of concern are elevated water tanks and telecommunications towers.

Areas within Ada Township affected by the Somerville Airport Approach Plan are limited to portions of the Ada Moorings development and very low density residential development located south of Ada Drive along the Thornapple River backwater. Neither this plan nor current zoning pose any conflicts with the Somerville airport.

Public Water and Sewer Services

Ada Township provides both public water supply and sanitary sewer services to portions of the Township. The Township purchases treated water on a "wholesale" basis from the City of Grand Rapids. It also purchases wastewater conveyance and treatment services from the City of Grand Rapids. These services are provided pursuant to a "Water and Sanitary Sewer Service Agreement" between the Township and the City, that was first entered into in 1978. A new agreement was negotiated and signed in 1999. The 1999 Agreement contains provisions that are

intended to encourage a more compact pattern of growth and to discourage sprawl within the Metro Area, by allowing extension of utility services beyond the limits of the current service area only when a high degree of build out of land within the current service area has been achieved. Following is a summary of the provisions of the 1999 Agreement:

The Agreement between the Township and the City of Grand Rapids defines the terms "Utility Services District" and "Urban Utility Boundary" as follows:

Utility Services District (USD): the area within the Township where public water and/or sewer services "shall be extended."

- The USD could also be called the "current" or "short-term" utility service boundary.
- The Township may initially set the USD boundary at any location, at its sole discretion.
- Utility services may be extended anywhere within the USD, at any time.
- Utility services may not be extended outside the USD.
- Once established, the boundary of the USD may not be expanded unless the following conditions are satisfied:
 - 1) at least 65% of property within the existing USD boundary "has been developed."
 - 2) the USD, after expansion, will be not less than 45% developed.
 - 3) the USD boundary may not extend beyond the Urban Utility Boundary (UUB) (defined below).

Urban Utility Boundary (UUB): that part of the Township within which "more dense urban development can be expected to be encouraged and to occur and within which urban services can, as development occurs, be expected to be provided."

- The UUB is the "ultimate" or "long-term" utility service boundary.
- Areas outside the UUB "should remain primarily rural with less dense use encouraged and promoted."
- The Utility Services District (USD) may eventually be expanded to the limits of the UUB.
- The UUB may only be expanded "upon mutual agreement of the City and the affected Customer Community" when the following conditions are satisfied:
 - 1) the boundary of the USD is at the limits of the UUB.
 - 2) at least 65% of the land area within the UUB is already developed.
 - 3) the Township has "adopted a zoning and planning master plan for property it wishes to include within the Urban Utility Boundary."

In 1999, the Township established the USB and UUB boundaries as shown on the Public Water and Sewer Service Area maps in the Appendix. The limits of the USB and UUB for both water and sewer services were established to be identical. At the time of preparation of the Water System Reliability Study in 2006, it was estimated by Moore & Bruggink, the Township's engineering consultant, that the land area within the existing Utility Services District is 69.2% developed, which is over the minimum requirement established for expansion of either the USB or the UUB. Following is a description of the Township's public water and sewer facilities.

Municipal Water:

Ada Township is responsible for providing water service to individual customers within the service area, and operating and maintaining its distribution system. These responsibilities include

establishing rules and regulations regarding the use of the system, metering of usage, setting user rates, and billing of service charges. The Township is also responsible for maintenance, repair and replacement of its distribution system. The main water system currently serves approximately 2,000 customers, with a service area population of about 6,000 persons. Average daily water use in 2005 was about 1.35 million gallons. Alticor Corporation, the largest user in the system, accounts for about 40% of average daily demand. Excluding Alticor's usage, average daily usage is about 405 gallons per customer.

Treated water is supplied to the main Township system by a 16" diameter main and a 12" main from the City of Grand Rapids water supply system. The delivery point is the Township's booster pump station located on Ada Drive, at the west Township boundary. The booster pump station has three 1,500 gpm pumps, with a firm pumping capacity of 3,000 gpm. The major components of the distribution system are 16-inch and 12-inch mains. An elevated storage tank of 1 million gallon capacity is located on the south side of Ada Dr., east of Maple Hill Ave. The distribution system has three pressure zones, which compensate for the change in elevation which occurs from the higher ground in the southwest part of the Township, to the lower elevations near the Grand and Thornapple rivers in the eastern portion of the service area. Pressure reducing valves at four locations separate the high and medium pressure zones, and a single pressure reducing valve in the Ada Village serves the low pressure zone.

An additional area of public water service is the Grand Valley Estates water system, which serves the area near the intersection of Knapp Street and Pettis Avenue, including the Forest Hills Eastern school campus. Not connected to the balance of the Township's water system or the City of Grand Rapids system, this separate water supply and distribution system was constructed by the developer of the Grand Valley Estates subdivision. Ownership and management of this system was taken over by Ada Township at the request of the subdivision developer, in the mid-1990's. The system supply is provided by two 12" diameter wells located within Grand Valley Estates subdivision. A 250,000 gallon elevated storage tank is located on the Forest Hills Eastern school campus. The elevated tank is owned by the Forest Hills Public Schools district, and is operated and maintained by Ada Township pursuant to a contract between the Township and school district. In addition to serving the Grand Valley Estates subdivision and the school campus, this system serves the Egypt Creek Estates development located northwest of the Pettis Ave./Knapp St. intersection, and the East River Ridge development located west of Grand Valley Estates.

In 2005 the Grand Valley Estates system had 84 residential customer accounts, and three Forest Hills school campus accounts. Total water usage in 2005 was about 22 million gallons.

Areas outside the current public water service area are served by on-site private wells. In general, groundwater sources of water supply in the Township are sufficient in quantity and quality. The most common problem associated with groundwater supplies is excessive hardness, which can be remedied at moderate cost by in-home softening units. According to the Kent County Environmental Health Department, there are no problem areas in the Township where groundwater sources have become contaminated and unusable due to high nitrate or fecal coliform levels. These two pollutants are most commonly associated with contamination from onsite waste disposal systems, lawn fertilizers, agricultural fertilizers or animal manure.

Municipal Sanitary Sewer:

Ada Township also owns and operates a sanitary sewer collection system, serving an area which largely follows the public water service area. Major sanitary sewer mains, the contract service area and the area presently served are shown on the Sanitary Sewer Service Area map in the Appendix. Waste treatment services are provided by the City of Grand Rapids on a contractual

basis. As with the Township water system, Ada Township is a wholesale customer of the City of Grand Rapids. The Township is responsible for ownership, operation, maintenance and replacement of its collection system, and setting and administering user charges.

The wastewater collection system comprises approximately 143,000 linear feet of pipe, of which about 37,500 feet is 12-inch diameter or larger pipe size. The majority of the collection system flows by gravity to a pump station located on Fulton St., just west of the Ada Dr. intersection. Wastewater is pumped from this station through a 16-inch force main up Ada Dr. to a point west of Alta Dale Ave. From this point it flows by gravity west on Ada Dr. to the point of connection with the City of Grand Rapids system at the Township boundary.

Another pump station and force main on Fulton St., east of Alta Dale Ave. convey sewage back to the east to the Ada Village pump station. Two other pump stations and short lengths of force main serve the area near Cascade Rd., Spaulding Ave. and Hall St. There is also a pump station located on Spaulding Ave., south of the railroad, that serves much of the Clements Mill development and a portion of the West Village development. A force main runs between this pump station and a point on Spaulding Avenue just north of Ada Drive.

The system serves approximately 3,500 persons. According to the Master Plan for Metropolitan Water and Sewer Services, completed in March, 1992 for the Metropolitan Water and Sewer Planning Agency, average wastewater flows from the Ada Township system in 1990 were about 690,000 gallons per day. Industrial sources were estimated to account for 330,000 gpd, or 48% of total flows, with residential use accounting for 29% and commercial uses, just under 12%. Infiltration and inflow into the system accounted for the balance of 12% of total flows.

Projections of future population and wastewater flows contained in the Metropolitan water and sewer study are as follows:

Population

Year:	Township total:	Service Area:	Projected flow:
2000	10,025	5,453	1.17 mgd
2010	12,470	7,136	1.37 mgd
2020	14,918	8,578	1.55 mgd

The projections of flow do not assume any increase in the total service area of the Township's sewer system. The above population projections used to develop projected flows coincide with those used for transportation planning purposes in the Metro area, and were obtained from the Grand Rapids and Environs Transportation System (GRETS). It should be noted that these projections appear to be significantly higher than those used in the 1992 Township Water System Reliability Study, and are also higher than the projections developed in this Master Plan.

The only major facility need identified in the Plan is the addition of an interceptor sewer and pump station to serve the western portion of the Township, north of Ada Dr. This need was recently met with the construction of a pump station and force main on Spaulding Ave., to serve the new Amway Catalog Distribution Center. In addition, the Plan anticipates the eventual extension of the Township's collection system to serve the currently-unserved area south of Ada Dr., between Fox Hollow Ave. and the Thornapple River, in the event development occurs in this area.

Another area of needed service is the commercial area on the east side of the Grand River, at Fulton St. and Pettis Ave. Many of the uses in this area, such as restaurants/bars and a day care

center, should be served by public sewer, given their small parcel sizes, their proximity to the Grand River and its floodplain, and the numbers of people they serve. Since this area is outside the contractual Service Area, amendment to the Sewer Service Agreement would be required to provide service.

Overall, the Township's water distribution system and wastewater collection system are capable of meeting anticipated growth within the current sewer and water service area boundaries.

Parks and Recreation Facilities:

The Parks, Recreation and Open Space Plan, adopted by the Township Board in February, 2007, contains a complete inventory and description of the public and private park and recreation facilities in the Township. The public recreation facilities in the Township are summarized on the Park and Recreation Facility Inventory map, contained in the Appendix. The reader is referred to the Park, Recreation and Open Space Plan for the complete descriptions of these facilities.

Wireless Telecommunications Infrastructure:

In 2005, the Township retained a consultant to complete an assessment of the existing wireless telecommunications tower sites in the township, as well as evaluation of opportunities for colocation of additional wireless facilities on existing structures in the Township.

The September 2005 study report contains an inventory of existing structures that already were or potentially could be used for wireless communications equipment in the Township. The quality of the coverage of these existing and potential sites was modeled and graphically depicted on maps of the Township. The report also graphically depicts the coverage area from two potential additional wireless sites that, if used, would eliminate gaps in wireless coverage within the Township: 1) a site in the vicinity of the Forest Hills Eastern High School and Township/School district water tower, and 2) a site at the west end of the Alticor corporate headquarters and manufacturing complex, near Fulton Street and Grand River Drive. The analysis concluded that with the addition of these two sites, the wireless communications needs of the Township would be well served, and it is unlikely that additional "major hub" tower sites would be needed in the future.

CHAPTER VI A VISION FOR ADA TOWNSHIP

The Ada Township Master Plan sets forth the desires of the Township regarding its future character and development pattern. The Master Plan is intended to guide local government growth and development decisions as well as private sector decisions regarding land use and development. This statement of future vision for Ada Township identifies the key components of the community's desired future, based on consideration of public opinion as measured in the citizen opinion survey conducted in 2004, views expressed in public forums held during the planning process, and consideration of sound planning principles. The vision statement, its policy statements and suggested implementing strategies seek to carry out the following "smart growth tenets" that are set forth in "Michigan's Land, Michigan's Future," the final report (August 2003) of the gubernatorially-appointed Michigan Land Use Leadership Council:

- "1. Create a range of housing opportunities and choices.
- 2. Create walkable neighborhoods.
- 3. Encourage community and stakeholder collaboration.
- 4. Foster distinctive, attractive communities with a strong sense of place.
- 5. Make development decisions predictable, fair, and cost-effective.
- 6. Mix land uses.
- 7. Preserve open space, farmland, natural beauty and critical environmental areas.
- 8. Provide a variety of transportation choices.
- 9. Strengthen and direct development towards existing communities.
- 10. Take advantage of compact development design."

I. COMMUNITY CHARACTER:

- Ada Township will maintain and strengthen its identity as a distinctive community within the Grand Rapids Metropolitan Area, known and valued for its attractive residential neighborhoods, opportunities for rural living in a natural setting, its compact traditional Village neighborhood and business district, its high quality recreational facilities, its accessible and high quality natural features, its scenic Grand River Valley, its limited but economically viable agricultural lands and its generous open spaces.
- Ada Township will grow in a compact form, with the majority of the Township's new development occurring in areas served by the Township's public water and sewer systems. There will be a distinct difference in character between areas of the Township that are more suburban in character (largely south of M-21 and west of the Grand River), and areas that are rural in character (largely north of M-21 and east of the Grand River).
- The Fulton Street corridor through the Township will retain its distinct natural, scenic and uncluttered appearance.
- Rural areas of the township will retain their character, comprised of many elements, including the following:
 - views along major public road corridors that are largely natural in appearance and free from development.
 - gravel roads, including many miles of gravel road that are designated as "Natural Beauty Roads" by the Kent County Road Commission.
 - less emphasis on use of manicured lawns, in favor of homes sites in a natural setting that are set back a considerable distance from the road.
 - scattered farmsteads with modest, historic homes and agricultural barns.

- large expanses of open land in the Grand River valley.
- prominent wooded ridgelines along the edges of the Grand River valley.
- scattered agricultural uses throughout the northern two-thirds of the township, with a concentration of agricultural lands in the northeastern quadrant of the township.
- Ada Township will retain a sense of its history. New development will be visually compatible and consistent with existing historically significant structures in the Township, which will be preserved and enhanced.

Ada Township will:

- 1. Manage growth in the Township with regulations that ensure the preservation of the Township's outstanding natural features and character.
- 2. Support measures to encourage continued viability of agricultural land use in the Township, particularly in the northeast quadrant of the Township, where the majority of the Township's agricultural lands are located.
- 3. Acquire land or easements on high priority open space lands, in accordance with the priorities established in the Ada Township Parks, Recreation and Open Space Protection Plan.
- 4. Maintain low development densities in the rural portions of the Township, which are not likely to be serviced by public water and sewer facilities, and where the road network and limited road crossings of the Grand River do not support high traffic volumes.
- 5. Ensure that new development design incorporates landscape features that screen objectionable site features from view, enhance the overall appearance of the development site, preserve existing natural features and contribute to the natural character of the Township.
- 6. Discourage creation of residential parcels in a linear, shallow-depth pattern along public roads, in order to retain a natural appearance along road frontages.
- 7. Discourage paving and/or widening of the gravel roads in the Township, in the absence of a demonstrated safety hazard.

II. NATURAL FEATURES AND ENVIRONMENT:

- Ada Township will continue to be a community noted for its outstanding natural surroundings, including its striking wooded hillsides, its expansive Grand River floodplain corridor, its clear-flowing creeks and its high quality wetlands.
- Long-term sustainability of the area's natural systems will be a primary consideration in all development proposals and public investment decisions.

Ada Township will:

- 1. Encourage provision of undisturbed natural vegetation adjacent to riparian features in the Township, including rivers, streams and wetlands.
- 2. Monitor the administration and effectiveness of recently-enacted riparian protection regulations, to evaluate whether the exemptions contained within the regulations should be more narrowly drawn.
- 3. Ensure that new development incorporates effective erosion and sediment control measures, both during construction and after development is complete. The Township will consider the adoption of a Township-based erosion and sediment control permitting program, in lieu of the current County-administered program.
- 4. Develop regulations to discourage development on steep slopes in proximity to riparian features.
- 5. Maintain low development densities in areas not served or expected to be served by public sewer and water, to discourage over-concentration of on-site disposal systems and resulting pollution of groundwater supplies, and depletion of groundwater.
- 6. Prohibit commercial and industrial uses which are likely to involve use or production of hazardous materials, in areas not served by public sewer service.
- 7. Develop site plan review standards to require groundwater protection measures in new development design, such as secondary containment of hazardous materials and prohibition on floor drains not connected to sanitary sewers.
- 8. Through landscaping standards for new development, enhance the natural surroundings in the Township. Through tree protection regulations applicable to all lands in the Township, ensure that the green infrastructure in the developed portions of the Township is maintained over the long term.
- 9. Encourage placement of sensitive environmental areas into common open space and appropriate clustering of home sites in new development, to provide long-term protection of these areas and greater accessibility of natural areas to residents.
- 10. Permanently protect high-priority sensitive environmental areas through acquisition of land or development rights by the Township or a non-profit land trust.
- 11. Discourage filling and development within the 100-year floodplain.

III. AGRICULTURAL LAND USE:

 Agricultural land use, particularly in the northeastern quadrant of Ada Township and extending into the adjacent townships, will continue to be an economically viable use of land, and will be largely free of scattered residential land uses that potentially hinder agricultural operations.

Ada Township will:

- 1. Support measures to encourage continued viability of agricultural land use in the Township, particularly in the northeast quadrant of the Township, where the majority of the Township's agricultural lands are located.
- 2. Consider the enactment of agricultural protection zoning standards, to limit the fragmentation of agricultural lands.
- 3. Use "park and land preservation" millage revenues as matching funds with other funding sources, to acquire development rights on agricultural land through the Kent County Purchase of Development Rights (PDR) program.

IV. RESIDENTIAL LAND USE:

- Ada Township will have a variety of housing styles and levels of affordability, to accommodate the needs of varying incomes, stages in life and housing preferences, in neighborhoods that are aesthetically pleasing, safe, pedestrian-friendly and conducive to neighborliness and social interaction.
- The compact residential neighborhood along the Cascade Rd. corridor, within walking distance of potential transit service along the corridor, will be enhanced through new private investment in the area that reinforces efficient design, affordability and alternative mobility.
- Former mining and resource processing sites along the Pettis Ave. corridor will be redeveloped for other uses compatible with the rural character of the area.
- Rural portions of the Township located north and east of the Grand River will retain a very low density of residential development, consistent with the existing rural character of this area and compatible with the limited infrastructure capacity that is expected to be available to this area in the future. Infrastructure limitations that currently affect the area include the absence of public water and sewer services and only two road crossings over the Grand River.

Supporting Policies:

Ada Township will:

- 1. Encourage inclusion of elements of Traditional Neighborhood Design (TND) in new development, including a greater emphasis on compactness, orientation of homes toward the street, pedestrian accessibility and linkages, continuity of the local street network and less segregation of uses.
- 2. Consider development of a new residential zoning district classification which allows single-family residential lots smaller and narrower than current standards allow, for application in selected areas of the Township where public utilities and other supporting infrastructure are provided.
- 3. Encourage compact residential development along and near potential public transit corridors, such as Cascade Rd. and Fulton St.

- 4. Provide land in appropriate locations for high density residential uses, such as multiplefamily apartments and attached condominiums, in locations which are adequately served by public utilities, roads and other infrastructure, and where such uses are compatible with the surrounding area.
- 5. Encourage compact residential development in and near the Ada Village neighborhood.
- 6. Adopt appropriate growth management regulations to ensure that residential neighborhoods are free of adverse influences from incompatible land uses and high traffic volumes.
- 7. Encourage redevelopment of lands along the Pettis Ave. corridor currently used for resource processing and manufacturing, for other uses compatible with a rural area.
- 8. Encourage inclusion of open space, mini-parks and natural areas within residential neighborhoods.
- 9. Provide non-motorized trail connections between residential neighborhoods and parks, schools, churches, shopping and other activity centers.

V. ADA VILLAGE AREA:

- The Ada Village area will be recognized as the hub of the community, with attractive residences providing housing for a diverse range of residents, a vibrant business community providing goods and services for residents as well as visitors, and a variety of civic uses providing cultural amenities to residents.
- The Ada Village area will provide an inviting and pleasant environment for pedestrians, by means of outdoor spaces, both public and private, for relaxation, and a sidewalk network to separate pedestrians from vehicles.
- The Ada Village area will be accessible to all residents of the community by a network of non-motorized trails.
- "Streetscape" improvements including sidewalks, landscaped parkway, street trees and period lighting, as provided for in the Ada Village Restoration Plan, will extend to those portions of the Ada Village area where they have not already been completed (e.g. Bronson St. and Headley St.).
- The Ada Village area will retain a sense of history in its mix of the old and new, with new buildings that complement the old through use of traditional architectural design elements and avoidance of nondescript "franchise" architectural designs.
- Existing buildings of historic significance in the Village will be preserved and enhanced.
- Development of major remaining vacant commercially-zoned lands in the Village will incorporate a mix of commercial and residential use, to provide opportunities for new housing within the Village area, to encourage a compact development pattern within the community, and to encourage the maintenance of a Village residential population that supports and sustains Village businesses and services.
- Development and redevelopment in the Village commercial area will capitalize on the adjacent Thornapple River, through the creation of a riverfront pedestrian plaza.

Ada Township will:

- 1. Implement the "Catalyst Initiatives" and other high-priority projects identified in the "Ada Village Design Charrette Final Report."
- 2. Enact "form-based" zoning regulations for the Ada Village area.
- 3. Encourage the majority of the Township's retail and personal service businesses to be located within or adjacent to the existing Ada Village area.
- 4. Ensure that new development within the Village area is of size, scale, form and placement on the site that conforms with the planning and design principles expressed in the Ada Village Design Charrette Final Report.

VI. COMMERCIAL AND OFFICE/SERVICE LAND USE:

- Ada Township's commercial land use base will provide local residents with a variety of "convenience-type" goods and services, in convenient locations which minimize driving distances, and which are accessible via the Township's non-motorized trail system. Ada Township will not be home to large-scale regional shopping facilities.
- The Ada Village area will provide convenience goods and services serving local residents as well as specialty goods and services tailored to "destination visitors."
- Retail businesses, restaurants and other high traffic generating commercial uses will not be located along Fulton St. (M-21) beyond those areas which are already located in the C-1 or C-2 commercial zoning districts.

Supporting Policies:

Ada Township will:

- 1. Discourage retail uses, restaurant uses and other high traffic-generating uses along the Cascade Rd. and Spaulding Ave. corridors, in order to preserve the important traffic-movement function of these arterial roads, and to concentrate these uses in the Forest Hills business district near the intersection of Cascade Rd. and Forest Hills Ave.
- 2. Encourage professional office, business service, and personal service uses in the Spaulding Ave. corridor south of Ada Drive, and along Cascade Rd.
- 3. Ensure that development along the Cascade Rd. corridor is carefully designed to be compatible with adjoining residential neighborhoods located to the north and south of the properties fronting Cascade Rd.
- 4. Discourage expansion of commercial land use east of the Grand River beyond the limits of existing commercial uses.
- 5. Discourage development of commercial uses in the M-21 corridor in a "strip" pattern. Commercial development will be encouraged to occur in planned centers, characterized by unified architectural character, coordinated driveways, circulation and parking, signage and landscaping.

VII. INDUSTRIAL LAND USE:

- Ada Township will retain its existing base of both large and small manufacturing, distribution and construction businesses.
- New industrial development that is non-polluting and consistent with the long-term sustainability of the community will be located in areas which are free of potential conflicts with adjoining residential land uses, and which are easily accessible from Fulton Street (M-21).
- The existing industrially-zoned corridor on the south side of Fulton Street from Kulross Ave. west to Alta Dale Ave. will be free of uses that are likely to generate objectionable noise, odors, vibration or other negative impacts on adjoining residential neighborhoods. The corridor will evolve to favor a variety of non-retail, low-traffic generating service uses, office uses, and low impact industrial uses.

Supporting Policies:

Ada Township will:

1. Through strict performance standards for industrial uses and through appropriate review procedures for new uses, prohibit land uses which are likely to generate adverse noise, odor, dust and other objectionable impacts on the adjoining residential neighborhood from locating within the Fulton St. corridor from Kulross Ave. west to Alta Dale Ave.

VIII. MOTORIZED AND NON-MOTORIZED TRANSPORTATION:

- Ada Township will be served by some form of mass transit, most likely along the Fulton St. (M-21) and/or Cascade Road corridors, or light rail service on the existing rail corridor.
- A Township-wide system of non-motorized trails will provide safe, convenient and pleasant facilities for non-motorized travel and recreation in the Township. Trails will link neighborhoods to major activity centers in the Township, including the Ada Village, schools, churches, parks and other major recreation facilities.
- The Township's road network will provide for safe and efficient movement of vehicular traffic, while protecting residential neighborhoods from the negative impacts of high traffic volumes and speeds.

Supporting Policies:

Ada Township will:

- 1. Encourage a development pattern that will be conducive to the feasibility and usage of public transit between population centers in the Township and employment, shopping and entertainment centers in other parts of the Metropolitan Area.
- 2. Encourage compact residential development to occur along likely future public transit corridors.
- 3. Consider permitting higher residential densities than currently are permitted in the residential areas west of Spaulding Ave. and south of Ada Drive, to provide for possible

re-development of large blocks of land in this area for attached condominiums or town homes.

- 4. Complete the planned expansion of the Township's non-motorized trail system.
- 5. Encourage provision of publicly-accessible non-motorized trails as part of new development, when development is proposed adjacent to planned routes on the Township's non-motorized trail network.
- 6. Maintain low development densities in the portion of the Township north and east of the Grand River, in acknowledgement of the capacity limitations of the existing transportation infrastructure serving this area, particularly the limited number (2) of road crossings of the Grand River in the Township.
- 7. Encourage use of "context sensitive design" principles in the design of new and improved roads in the Township. Context sensitive design takes into consideration the neighborhood context of the street, including such factors as the building types along the street, their spacing, their proximity and orientation to the street, and the extent of pedestrian and bicyclist use of the street corridor, in addition to considering the intended function of the street in the overall street network. The use of such an approach in many cases calls for a narrower pavement width than required by typical traffic engineering standards, and a design that better meets the goals of all parties concerned, including the neighborhood that would be served by the street.
- 8. Develop access management standards for application to major roads in the Township, to control the number, spacing, design and location of driveway accesses, in order to maintain the traffic-carrying capacity and safety of major roads in the Township.
- 9. Implement measures to limit and control the proliferation of parcel splits and individual driveway accesses along major rural roads in the Township, through land division and access control regulations.
- 10. In cooperation with the Kent County Road Commission, encourage the design and layout of the street network in the Township to be based on the following principles:
 - a. Excessive through traffic on local streets should be discouraged by appropriate design measures, to maximize pedestrian safety and protect the residential living environment.
 - b. The layout of local streets should contribute to and enhance the quality of the residential living environment.
 - c. The design of streets in the Township should take into consideration the context of the adjoining properties that the street passes by.
 - d. Local street systems should provide for a degree of interconnectedness in the street network that distributes traffic over multiple routes, avoids concentration of traffic on only one or a few routes, and provides drivers with multiple route choices.
 - e. The layout of local streets should not result in excessive travel distances and times. To provide for efficient service by school buses, delivery and maintenance/service vehicles, excessively long dead-end local street systems should be avoided.

f. Street system design should provide for adequate emergency access. To the extent practicable, areas of concentrated development should be accessible by more than one route, due to the possibility of blockage of a single access point.

IX. PUBLIC UTILITIES AND COMMUNITY FACILITIES:

• Ada Township will provide high quality, efficient public water and sewer services to areas that are planned for land uses of an urban intensity.

Supporting Policies:

Ada Township will:

- 1. Coordinate provision of public utility services with land use policies, so that utility service availability supports and reinforces the desired land use pattern in the Township.
- 2. Encourage infill development of areas already serviceable by existing utility infrastructure, prior to extension of utility infrastructure to new areas.
- 3. Ensure that if public utility service is extended beyond current service area boundaries, the costs of extending services are borne by the properties receiving the new services, and not by existing utility users or Township residents at-large, unless there are overriding benefits to the general public.
- 4. Study the feasibility of extending public sewer service to the east side of the Grand River at Fulton St., to provide service to the existing concentration of business uses on Pettis Ave. and Fulton St.
- 5. Coordinate its planning and community development activities with facility planning activities of the school districts serving the community.

CHAPTER VII PROJECTED POPULATION AND FUTURE LAND USE

Projected Population Growth to the Year 2020

An important factor which will affect the future physical development of Ada Township is the future population growth of the Township and West Michigan in general. Past population growth in the Township and the region is an indicator, but not an absolute determinant, of future population growth. Future population growth will be determined by many factors, including the rate of economic growth and job creation in the metropolitan area, trends in family sizes and the availability of land suitable for development.

A range of projected population for the Township in the years 2010 and 2020 is depicted on the graph shown in Figure 3. Three alternative projection methods result in a projected 2020 population ranging from 15,962 to 19,849. Projected year 2010 population ranges from 13,162 to 14,003. The methods used in preparing these projections were as follows:

• The method yielding the lowest projected population growth is based on a continuation of the average annual increase of 280 persons per year experienced between 1990 and 2005.

• The middle range of projections is based on assumed annual growth of 376 persons per year, which is the average annual increased experienced in the more recent 2000 to 2005 period.

• The highest projected population for 2010 and 2020 is based on a geometric growth rate of 3.55% per year, which is the growth rate from 2000-2005.

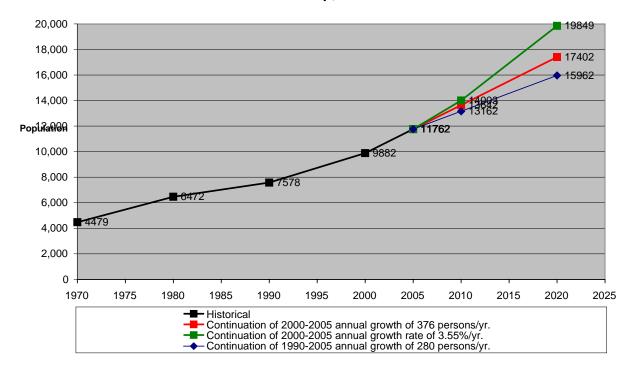
While efforts to project future population growth for relatively small areas are notorious for being inexact, circumstances exist to suggest that the growth rate experienced in Ada Township since 2000 may not continue in the next few years. The high rate of growth in the last 7 years took place while 3 relatively large residential developments were being built out simultaneously:

- Ada Moorings/Ada Moorings North, with over 180 single family homes.
- Clements Mill, with approximately 280 single family homes and 100 attached condominiums.
- West Village, with 150 single family homes. These 3 developments account for a large percentage of the Township's total population growth in the last 10 years.

Although there remain to be developed approximately 280 multiple family dwelling units in the final phase of Clements Mill, at the time of preparation of this plan there are no other approved and un-built developments of such a scale in the Township, and there is not a large inventory of un-built, vacant lots in recorded subdivision plats or condominium subdivisions.

This circumstance, when considered along with the current economic downturn being experienced in Michigan, suggest that the low end of the population projections shown in Figure 4 may be more likely to occur than the upper end. Analysis of future land needs contained in this Plan are based on a 2020 population projection of 15,962 persons.

Figure 6 -Historical and Projected Population in Ada Township, 1970-2020



It should be noted that no single method of those presented above can be concluded to be the most likely projection. These methods also do not take into consideration the impact of Township planning goals and policies on its future population. Planning efforts of the Township should recognize the uncertainty inherent in projecting future conditions.

Residential Land Needs

The amount of residential land needed in Ada Township between now and the year 2020 can be approximated by apportioning the projected growth in population to three residential land use categories, each with an assumed average dwelling unit density. Based on assumptions concerning the proportion of total housing unit growth in each density range, land area needs for rural, low and medium density residential land uses can be developed.

First, the projected population increase is converted to a projected number of households. Based on an estimated 2005 population of 11,762, the Township's population is projected to grow by about 4,200 persons, to 15,962 in 2020. The following assumptions concerning the mix of future new housing types, densities and household size are also made:

Category:	<u>Assumed</u>	<u>Assumed</u>	<u>% of</u>
	Density:	Household Size	<u>New Homes:</u>
Rural Density:	1 home per 3 acres	3.2 persons	32%
Urban Low Density:	2.5 homes per acre	2.8 persons	48%
Urban Medium Density:	6 units per acre	2.25 persons	20%

Based on the above assumptions, the number of new homes constructed, number of new residents and acres of land consumed by the year 2020 in each density category would be as follows:

Rural Density:	477 units on 1,431 acres, housing 1,525 people
Urban Low Density:	715 units on 286 acres, housing 2,000 persons
Urban Medium Density:	298 units on 50 acres, housing 670 persons.

Total New Dwelling Units: 1,489 units on 1,767 acres, housing 4,195 persons.

(Note: The density categories used in the above analysis are defined solely for use in approximating future land needs, and do not correspond to the Master Plan future land use categories used in the Future Land Use Map.)

The average household size of new households in the Township, based on the above assumptions, would be 2.8 persons/unit, which is only slightly less than the overall average household size of 3.03 estimated in the Township in the 2000 Census.

The housing style and location choices of future entrants into the Ada Township housing market will have a major impact on the land consumed by development in the future. Of particular note is the very high amount of land consumed in relation to housing units provided, for rural-character development, in relation to the other land use categories.

The above analysis assumes that a relatively high proportion (20%) of new housing units will be in the urban medium density category, which includes attached condominiums, apartments or town homes. It also assumes that over 65% of future new home construction will occur in the urban-character portion of the Township, where public utilities are available. Growth and development policies which encourage more urban-character development in the Township, in locations served by the Township's utility system, would be desirable, in the interest of minimizing a sprawling development pattern, encouraging more efficient provision of public services, and minimizing the amount of land consumed for new development.

Planned Future Land Use Pattern

The Future Land Use map, included in the Appendix, depicts the desired future pattern of development in the Township. The planned land use pattern largely reflects a continuation of the goals expressed in the 1995 Master Plan, with minor modifications made to the Future Land Use Map. It is also a response to the preferences expressed by residents of the Township in the survey conducted in 2004. A description of the planned future land use pattern and its rationale is presented below, organized by major geographic subsections of the Township. Significant changes from the 1995 Master Plan are also highlighted. Residential densities are expressed on a net basis, after exclusion of land devoted to public or private road rights-of-way.

The following land use categories are used to depict the desired future growth pattern of the Township:

Agricultural Preservation Area:

The area designated on the 1995 Master Plan as "Rural/Agricultural Preservation" area in the 1995 Master Plan has been divided into two different categories in this updated plan – separate "Agricultural Preservation" and "Rural Preservation" areas, with planned densities for each that are reduced from the planned density in the 1995 Plan.

Land in the far northeast quadrant of the Township, generally north of 2 Mile Rd. and east of the Cannonsburg State Game Area, is designated in the Agricultural Preservation category. Land included in this category is discouraged from being converted to more intensive uses, due to one or more of the following factors: 1) remoteness from employment and service centers, 2) status as prime agricultural land, 3) proximity to land being actively farmed, 4) soil characteristics that are poorly-suited for development and 5) lack of public utilities. The Township's intent within this area is to maintain a predominantly rural environment, and protect agricultural lands from encroachment by residential uses. Low development densities, no greater than 1 dwelling unit per 10 acres of land, are encouraged in this area, as a means of accomplishing this protection. In addition, use of home site "clustering" and open space development design techniques using the Township's PUD regulations or a newly-developed zoning classification described below are encourage, to limit fragmentation of large agricultural parcels and minimize conflict between residential use and nearby agricultural lands. It is anticipated that land in this use category will be placed in the Agricultural (AG) Zoning District, with new zoning rules developed for this district that establish both a minimum and maximum lot size for new parcel divisions in this area, subject to an overall density limit of 1 dwelling per 10 acres, for existing parcels of record. It is also contemplated that this area would be a priority area for use of any Township funds as local match toward the acquisition of development rights on agricultural land through the Kent County Purchase of Development Rights Program.

Rural Preservation Area (with Subareas 1 and 2):

The boundary of this land use category is largely unchanged from the boundary of the Rural/Agricultural Preservation area shown on the 1995 Master Plan. It includes most of the northern half and far eastern portion of the Township, with the exception of the removal of the area in the far northeast portion of the Township that is now designated in the "Agricultural Preservation" category.

In the Rural Preservation Area, it is acknowledged that the existing pattern of very low density residential development, on either large lots of 3-5 acres or more, or on smaller lots within planned "open space" developments, is likely to continue. With the exception of the existing service area of the Grand Valley Estates water service area, there are no plans for provision of public water and sewer services to this area.

With respect to planned density of residential development, this area is further subdivided into two subareas. The land located west of the Grand River (designated Rural Preservation—1 on the Future Land Use Map) is planned for a maximum density of 1 unit per 3 acres. This low density target takes into consideration the development limitations of the steep, wooded terrain located west of Grand River Dr., and the constraints of the Grand River floodplain between Grand River Dr. and the river.

On the east side of the Grand River, a large area of the northern and eastern portion of the Township is designated Rural Preservation Area – 2, and planned for residential development at a density no greater than 1 unit per 5 acres. As in the case of Subarea 1, this density target recognizes the current and planned future absence of public utility services in this area. It also is based on the limitations placed on the capacity of the area's road network by the Grand River; i.e. the limited number of existing bridges that connect this area to the employment and service centers located to the west, and the Township's desire to discourage development that would result in the need for the expense and environmental disruption that construction of a new bridge would entail. This area also includes land situated between Pettis Ave. and the Grand River, much of which is located in the 100-year floodplain of the Grand River. An exception to this designation is an area located immediately south of the Grand Valley Estates Subdivision, which is designation recognizes the terms of a settlement agreement that resolved litigation concerning mining of this

property. It also recognizes the adjacency of this land to existing residential development.

The Rural Preservation Area 2 includes land along the east side of Pettis Ave., south of Knapp St., that was designated in the Rural Development category in the 1995 Master Plan. Most of this land is currently in the Agricultural (AG) zoning district. The reduction in planned density that is provided in this Plan, to 1 unit per 5 acres maximum, is in recognition of this area's location on the east side of the river, with limited road crossings to metropolitan employment and service centers, and the absence of plans for public water and sanitary sewer service.

Rural Development Area:

The Rural Development Area is intended to accommodate new residential development and population growth in a rural setting. In this area, a premium is placed on designing new development to minimize impacts on site natural features, and be harmonious with a rural environment. Development density designated for this area is a maximum of 1 unit per 2 acres of land, as provided in both the Rural Residential (RR) Zoning District and the Planned Development (P-1A) District. The boundaries delimited on the Future Land Use Map for this category coincide in most respects with the boundaries of the RR and P-1A zoning districts on the zoning map. As discussed above, land on the east side of Pettis Ave., south of Knapp St. that was designated in this category in the 1995 Plan has been changed to the Rural Preservation 2 category in the current Plan.

Low Density Residential:

The Low Density Residential development category accommodates residential development of an urban character, in areas which are served by public water and sewer services, and which are conveniently located with respect to metropolitan area employment centers, commercial services, schools and other services. Single-family residences are the predominant form of housing in this land use category. However, attached residential development designs may also be appropriate in areas with this land use designation, in order to meet needs for greater diversity in the Township's housing mix, and a lesser emphasis on strict segregation and wide separation between different styles of housing.

Development density in this category is up to 2 units per acre under the conventional zoning provisions of the R-2 and R-3 districts. Attached housing and compact detached single-family development designs of slightly higher density, up to 4 units per acre, could be considered under the Township's Planned Unit Development regulations.

Other uses which are compatible with residential surroundings, such as schools, churches, day care homes and utility facilities may also be located in this area.

All of the land located in this land use category is located south of M-21 and west of the Grand River.

It should be noted that in the course of developing this plan, consideration was given to accommodating in the Plan the possible major redevelopment of the residential neighborhood on Patterson Ave., Argo Ave. and Sarasota Ave., between Cascade Rd. and Ada Dr. Potential redevelopment of the area could include new housing of multiple types based on "Traditional Neighborhood Development," or "TND" principles. This was considered in part based on the proposed Grand Rapids Township Master Plan's anticipation of redevelopment on adjoining land west of Patterson Ave., which is the Township boundary.

Accommodating such redevelopment east of Patterson Ave. is not provided in the Master Plan at this time, however, based on the fact that, at the time of preparation of this Plan, the homes in the

neighborhood had a very high (over 90%) owner-occupancy rate. In addition, the homes in this neighborhood provide a needed supply of moderately-priced housing in the area. The quality and stability of the neighborhood should continue to be monitored. If changed conditions warrant, modification of the Plan could occur in the future.

In the event redevelopment were to be proposed for this area, it should take place within the following general framework:

- 1. Redevelopment should not occur on a parcel-by-parcel, piecemeal basis. Redevelopment plans should only be considered for a significant assemblage of land, consisting of all of the lots fronting on both sides of one or more of the north-south streets in this area. It would also be preferable for any redevelopment in this area to occur concurrently with or after similar redevelopment of adjoining land in Grand Rapids Township.
- 2. Redevelopment should produce a walkable neighborhood, with strong pedestrian facility connections to the Cascade Rd. corridor, the Ada Drive non-motorized trail, the civic uses located north of Ada Dr. and to the Forest Hills Ave. business district.
- 3. Redevelopment should include a mix of housing styles and prices, to meet the needs of a broad spectrum of the housing market. Residential density in the area is targeted to be no greater than 6 dwelling units per acre.
- 4. The scale and form of new residential development in the area should be urban in character. Both Townships should establish form-based zoning regulations that would apply to any redevelopment efforts.
- 5. It would be desirable for Ada Township and Grand Rapids Charter Township to jointly sponsor a professionally-facilitated design charrette for the area in the future, prior to any redevelopment being undertaken.

Medium Density Residential:

This category is intended to provide land for multiple-family residential use, compact single family development designs, or mixed single- and multiple-family development at higher densities up to 6 units per acre. Land is provided for this use category in areas where land characteristics are not suitable for conventional single-family development, such as areas which have been formerly mined, sites with odd physical shape that make conventional development difficult. In all cases, this use category should have access to public utility services. It is anticipated that most development in areas designated Medium Density Residential will occur under the PUD provisions of the Zoning Ordinance.

Office-Service:

This category designates areas allocated for professional and business offices, business service uses, and other non-retail uses which do not have high traffic generation rates. This land use category often serves as a transitional use between residential areas and major thoroughfares. It is also intended to permit conversion of residences along major thoroughfares to non-residential use, in areas which are no longer well-suited for residential use due to high traffic volumes on the adjacent street. The Cascade Rd. corridor has all of these characteristics, and is the primary location of land designated for office-service use in the Township. Appropriate zoning for this land use category is the Professional Office (PO) Zoning District.

Future development in the office-service planned area along Cascade Rd. is likely to be in the form of redevelopment of existing built sites, since there are few vacant sites along the corridor,

but many sites with small former homes that have been converted to office uses. The existing Professional Office (PO) district regulations require a minimum 75-foot front building setback and minimum 40 foot rear yard setback. Because of the proximity of residential neighborhoods behind the PO-zoned frontage on both sides of Cascade Rd., consideration should be given to modifying the building setback provisions, to provide for greater building separation from the adjacent residential district, while allowing buildings to be set closer to Cascade Rd. This would also be consistent with the preferred site design approach of placing parking to the side or rear of buildings instead of in front of buildings adjacent to the road. Requirements for appropriate screening between the office frontage and adjacent home sites should also be examined to ensure that office development along the corridor is compatible with the adjacent neighborhood.

Development and redevelopment of property in this land use category should be carried out under PUD zoning provisions, to give the Township a greater degree of discretion regarding appropriate building form and character, in relation to the surrounding area.

General Commercial:

Ada Township does not currently serve as a regional retail center, and is not expected to do so in the future. General commercial uses in the Township will continue to meet the retail and service needs of the local population and those traveling on M-21. The intent of the Master Plan is to provide a very limited amount of land for general commercial uses in the Township, to maintain the primary focus of the Township's commercial activity on the Village area and land adjacent to the Village core. In particular, uses which generate high customer turnover rates with high vehicle trip generation rates are discouraged on M-21, to aid in maintaining a safe travel environment on this major roadway. The General Business (C-2) District is the anticipated zoning classification of land designated in this land use category.

The lands designated in this category are changed very little from the 1995 Master Plan. One area of change that should be noted, however, is land on the Pettis Ave. corridor, from Honey Creek Ave. east to Vergennes St. The proposed plan designates land on both sides of Pettis Ave. in this area for commercial use. The 1995 Plan designated existing commercially-used land on the north side of the street for Office use, while designating land on the south side of the street in the park/recreation category, as part of a planned Grand River corridor greenbelt. Since that time, two new commercial sites have been developed on the south side of the street. Some efforts have also been made to re-develop a former industrial facility on the north side of the street for commercial use, though without being brought to successful completion.

This Plan accommodates the likely continuation of existing commercial uses along Pettis Ave., and modest expansion of commercial uses to include two existing residential sites on the north side of the street, just west of Vergennes St. If either or both of these sites were to change to commercial use, it should be carried out under Planned Unit Development (PUD) zoning provisions. Commercial use of the corner site in a way that re-uses the existing residence and garage building should be encouraged, given the unique architectural character of both the residence and the accessory building on the property.

Ada Village Area:

Land use and appropriate development scale and form within the Ada Village area were recently addressed in the Ada Village Design Charrette process, the outcomes of which are documented in the Ada Village Design Charrette Final Report, dated January, 2007. A "Regulating Plan" for the Village area that was developed as part of the Charrette process identifies 4 distinct zones applied to the geography of the Village area, each having a unique urban character comprised of building form, building relationship to the street and street type. The four zones include the following:

- Village Core
- Village Center
- Village Proper
- Village Edge

These areas are shown on an inset map of the Village area on the Future Land Use map. They are described in greater detail in the Village Design Charrette Final Report, which is hereby adopted by reference as a part of this Plan.

Office/Service/Light Warehouse:

This is a newly-created land use designation that is applied to the existing Industrially-zoned lands on the south side of Fulton St., from Kulross Ave. west to Alta Dale Ave. This area was designated Light Industrial in the 1995 Master Plan. This new land use designation is intended to recognize the increasingly non-industrial nature of the land uses that are located in this corridor, and the Township's desire to encourage uses that are least likely to create conflicts with the adjoining residential neighborhood located directly to the south, across the rail line. A transition to new zoning regulations for this area which classify manufacturing as a special land use is anticipated. In addition, the Township does not wish for this segment of the M-21 corridor to become a linear retail commercial strip.

Appropriate land uses in this area include professional and administrative offices, health care services, child care centers, small warehouse and distribution facilities, light fabrication, assembly and packaging operations, places of worship. Another potential use in this area, subject to consideration of site-specific factors such as location and adjacent uses, is animal boarding and day care. New or expanded light manufacturing may also be located in this area, subject to special use approval as discussed above.

Light Industrial:

The Light Industrial land use category designates a large area of vacant land located west of Spaulding Ave., and south of M-21, in addition to the existing Alticor Catalog Distribution Facility on Spaulding Ave., south of the railroad. This area is suited to light industrial uses by virtue of the open and moderately sloped land in the area, availability of public utilities, proximity to the State trunk line highway, and proximity to I-96 to the west.

The intent of the Light Industrial category is to provide for industrial uses that do not involve operations likely to create objectionable noise or odors or are visually objectionable. Given the large size of properties in this area and relatively large distance from surrounding residential uses, the area could also accommodate material re-processing and recycling uses, provided strict environmental performance standards are adhered to. This land use category corresponds to the Light Industrial (LI) Zoning District on the Zoning Map.

Industrial:

The Industrial land use category designates existing, large manufacturing facilities which are not in close proximity to residential areas. Alticor Corp's manufacturing facilities between M-21 and the Grand River is the only property designated in the Industrial category. Appropriate zoning is the Industrial (I) District for this area.

Public/Semipublic:

Includes governmental facilities such as Post Office, Township offices and utility facilities, major overhead transmission lines, churches, schools, and cemeteries. Land in this category may be

located in any Zoning District.

Park/Recreation:

The Recreation land use category designates public and private park and recreation facilities in the Township. These uses, particularly those in private ownership, are not necessary committed permanently to the existing use.

Open Space:

Land that is permanently preserved in an undeveloped, open space use, through a legal means such as a conservation easement or designation as general common element in a condominium subdivision plan.

CHAPTER VIII COMMUNITY FACILITY NEEDS

As the population of both Ada Township and the overall Metropolitan area grows in the future, the capacities and adequacy of existing community facilities are certain to be tested. To ensure that the public health, safety, convenience and quality of life of Township residents is not compromised by inadequate public facilities, it is important that the Township anticipate future community facility improvement needs, and put in place a program for developing and financing needed facilities. The Township has already conducted planning and has programmed specific facility improvements in certain areas. For example, the Township prepares and updates a Community Parks, Recreation and Open Space Protection Plan that identifies facility and financing needs for that specific program area. The Water System Reliability Study that is prepared every 5 years and submitted to the State of Michigan includes programming of needed utility system improvements. These related documents are drawn upon for the information contained in the following sections.

Road Improvement Needs

In general, the Township's road network currently does not suffer from serious capacity, congestion or safety problems. However, as growth continues in Ada Township and in communities further east and north, current minor problems will grow more severe. Following is a description of planned and/or needed road system expansions, extensions and other improvements:

• Replacement of M-21 Bridge over the Grand River:

Total replacement of the existing M-21 bridge is planned by the Michigan DOT to be completed in 2009. Construction is expected to last for one complete construction season, starting in early spring and ending in late autumn. One lane of travel in each direction will be maintained during construction. Ada Township has communicated to the Michigan Department of Transportation its desire that the replacement bridge include a pedestrian/bicycle lane, separated from the vehicular travel lanes. The Township has also requested that consideration be given to providing some aesthetic enhancements to the design of the bridge, to ensure that it complements and reinforces the role of the bridge as a gateway to the Ada Village area.

• Implementation of street network expansion and "traffic calming" measures recommended for streets in the Ada Village area, as set forth in the Ada Village Design Charrette Final Report.

The Ada Village Design Charrette process that was conducted in 2006 resulted in identifying a number of traffic calming measures for streets in the Village. These measures include the following types of changes to the road network:

- 1. extension of two new streets from the Village to Fulton St. (M-21), one from Ada Drive and one from Headley St.
- 2. installation of two roundabouts in the Village, one in front of the Thornapple Village Center, at the intersection of Ada Drive and a new street extension to M-21, and one at the intersection of Headley St. and Bronson St.
- 3. narrowing of travel lanes on Thornapple River Dr. and Ada Drive, along with introduction of landscaped medians, to slow traffic.

- 4. conversion of the 5-lane portion of M-21 to a 4-lane boulevard, with a landscaped median.
- Intersection signalization at selected locations.

There is a growing need for traffic signals at one or more locations on Fulton St. (M-21 in the western portion of the Township, in order to provide gaps in the flow of traffic during peak traffic hours. Potential locations for conducting signal studies to determine whether signal warrants are met include the Fulton St./Kulross Ave. intersection and the Fulton St./Carl Drive intersection.

Safety improvements involving grade changes to improve sight distance are needed at the intersection of Egypt Valley Ave. and Knapp St. Completion of this project is a priority of the Kent County Road Commission, and is planned for completion in 2008. Although not included in the scope of the planned project, this intersection should also be considered for traffic signals in the future.

Two road extension projects that were identified as priorities in the 1995 Master Plan have been eliminated from the Plan in the 2007 update – the planned extension of Kulross Ave. south to connect to Ada Dr., and construction of a new bridge over the Grand River, to extend Snow Ave. to M-21.

The first of these projects, extension of Kulross Ave. to Ada Dr., is eliminated from the Plan due to development having occurred along the route that precludes the extension. In addition, there are significant wetlands along the extension route that would be negatively impacted, and which would add to the cost of the project.

The second road extension project removed from the Plan is the recommendation for an extension of Snow Ave. across the Grand River to Fulton St., at the eastern edge of the Township. As an alternative, it is recommended that a broader study of regional traffic mobility needs be conducted in the future, to consider whether an additional bridge is needed, and if so, to include study of a broader range of possible locations for an additional Grand River bridge.

Water and Sewer Utility System Needs

The intent of this Plan is to direct future urban-character growth to areas of the Township which are already within the water and sewer service contract areas, and in proximity to the existing water distribution and sewage collection systems. The Plan also identifies the need for both short-term and potential long-term expansion of the service area to meet existing and long-term service needs.

Within the existing service areas, water and sewer main extensions have been made as needed to accommodate new growth, and serve existing developed areas where the need for public service has been recognized. These extensions have been financed in a variety of ways, including by private developer's for new subdivisions, by State grant funds to stimulate economic development, and through special assessment districts to serve existing developed areas.

In 2006, a Water System Reliability Study, as required by Part 12 of the Michigan Safe Drinking Water Act, was prepared by the Moore & Bruggink, the Township's engineering consultant. The Study included inventory of the current water distribution system, current usage, projections of future service area population and water usage, and evaluation of capability to meet future needs. The Study projects the service area population to grow from 5,658 in 2005 to about 9,340 by the

year 2020. Average daily water use is projected to increase to approximately 2.14 million gallons per day, a 59% increase above current usage of 1.35 mgd.

The study identifies several water main interconnection needs, to provide more looped mains and fewer dead-end mains in the water distribution system, thereby increasing redundancy in the system and increasing service reliability.

With regard to the public sanitary sewer system, this Plan recommends that the Township consider extension of public sewer service across the Grand River at Fulton St., to provide service to the existing concentration of commercial uses and commercially-zoned land in the vicinity of the Pettis Ave. /Fulton St. intersection. Land uses in this area include two restaurant/liquor-licensed premises, a potential 3rd restaurant/bar, a day care center and other commercial buildings. There are at least two properties which do not have proper on-site waste disposal drain fields. They rely on use of sanitary waste holding tanks which require frequent pumping. The proximity of on-site waste disposal systems to the Grand River in this area creates an enhanced risk of discharge of pollutants to the river.

It is recommended that the Township conduct an engineering and feasibility study, to determine the costs of extending sewer service, and an analysis of whether it would be economically feasible and acceptable to finance the system expansion through a special assessment district. Expansion of the system east of the river would also require approval of the City of Grand Rapids, pursuant to the terms of the Service Agreement between the City and the Township.

The Water and Sewer System Master Plan maps contained in the Appendix depict the general potential layout of existing and future water and sewer mains if the entirety of the defined service area for these utilities was ever needed to be served. It should be noted that, aside from the water main looping and interconnection needs identified in the Water System Reliability Study referenced above, and the suggested feasibility study to extend sewer service to the immediate vicinity of the M-21/Pettis Ave. area, this Plan does not recommend or anticipate the extension of utility services to currently unserved areas that are not planned for a development intensity that would warrant public utility services, unless there are significant public health issues from widespread septic system failures or well contamination.

Park and Recreation Facility Needs

Park and recreation facility needs of the Township are identified in the Ada Township Parks, Recreation and Open Space Plan, adopted by the Township Board in February, 2007. The Plan identifies the following major park and recreation improvement needs in the Township:

- Continued development of Roselle Park, as called for in the Roselle Park Master Plan.
- Ada Township Park improvements, to include a new sand volleyball court and replacement playground structures.
- Establish water trail map and signage on the Grand River
- Portable plastic ice sheet for Leonard Field Park
- Interpretive signs, Grand River Nature Trail/Preserve and Roselle Park
- Develop a neighborhood park in the Ada Drive corridor, between the Village and Spaulding Avenue.
- Re-develop Leonard Park with band shell/gazebo and ice rink/labyrinth surface.
- Acquire land to connect Grand River Nature Trail and Preserve to Leonard Field Park.
- Acquire Kent County Road Commission garage site for use as a community center / senior center.
- Develop a neighborhood park in the northern portion of the Township.

• Acquire other high priority open space properties, with funding from the Parks and Land Preservation millage.

The Parks, Recreation and Open Space Plan also identifies and prioritizes the types of land that the Township considers important for permanent preservation in a natural and/or undeveloped condition, and identifies implementing tools available for accomplishing permanent protection of open space lands.

Other Community Facility Needs

Fire Protection:

As the population of the Township has grown, Ada Township has made investments in upgrading its fire protection facilities. In 1990 the Fire Department added its first full time employee who divided this time between the fire department and zoning enforcement. In 1995 the Department added a full time Fire Chief and in 1997 added a second full time employee who divides his time between the fire department and grounds duties. The Department continues to heavily rely on paid on call fire fighters.

The Department operates out of two stations; Station 1 at Fulton and Bronson is staffed Monday through Friday 8:00am to 5:00pm, and Station 2 on Knapp west of Honey Creek. The geographic location of the two stations provides effective coverage and prompt response times to the entire Township.

The Fire Department operates three pumpers, one tanker, two brush fire pickup trucks, and two rescue squads.

A study conducted for the Township by the Michigan Fire Chiefs Association recommended that the fire department have one fire fighter on shift 24 hours a day 7 days a week, in addition to the current staffing level during the day.

Wireless Telecommunications Infrastructure:

Based on the consultant-prepared analysis of existing and potential wireless antenna and tower sites that was completed in 2005, there is a need for additional wireless telecommunications signal coverage in two areas of the Township - in the Ada Village area, and in the vicinity of the Knapp St./Pettis Ave. intersection. Through either co-location on existing structures in these two areas, or through construction of new towers, the needs within the Township for "hub" wireless sites would be met, according to the 2005 Study Report. The study identified the jointly managed Ada Township/Forest Hills Public Schools elevated water tower located east on the Forest Hills Eastern school campus or the footfall field lighting poles on the campus as possible co-location opportunities.

CHAPTER IX PLAN IMPLEMENTATION STRATEGY

Achieving the vision for the future of the Township expressed in this Plan will require an ongoing commitment of effort by Township elected and appointed officials and Township staff, to ensure that the Township's growth management regulations foster and promote the vision, and to develop and carry out programs for developing needed community facilities identified in the Plan. Each of these areas is addressed in the following subsections.

Regulatory Modifications.

The Township Zoning Ordinance is the legal mechanism by which the use of land in the Township is regulated. This Master Plan, in itself, is merely a statement of land use policy and intended direction. On its own, it is not a legally-binding document. The Zoning Ordinance, through its various Zoning Districts, governs the permissible uses of land in various geographic areas of the Township. Needed revisions to zoning regulations to address conformance with the Master Plan fall into two categories:

- 1. Creation of new zoning districts and revising the density and/or use regulations of existing zoning districts.
- 2. Rezoning of individual properties, on a case-by-case basis, where the current zoning does not conform to the Master Plan.

New and Revised Zoning Districts:

The Future Land Use Map contained within this Plan suggests changes to the planned maximum residential development densities (dwelling units per acre of land) in various portions of the Township. Whereas the northern 2/3 of the Township is currently zoned in either the Rural Residential (RR) zoning district (1 unit per 2 acres maximum density) or Agricultural (AG) zoning district (1 unit per 2 acres maximum density), the Future Land Use Map designates the same area in 4 different density designations. Amendment needs to implement the revised future land use designations include:

• decrease in maximum permitted density in the AG District to 1 dwelling unit per 10 acres, with both a minimum and a maximum lot area standard for newly-created lots established. The suggested maximum lot area standard for the AG district is 3 acres. The boundaries of the district would be amended to apply only to the area in the far northeastern quadrant of the Township designated "Agricultural Preservation" area on the Future Land Use map.

• development of new "Rural Preservation 1" and "Rural Preservation 2" zoning districts, and rezoning of property to the new districts.

The Rural Preservation 1 district, located in the northwest portion of the Township, west of the Grand River, would be identical to the existing AG district, with no change in permitted maximum density. In essence, the net effect of this re-classification would be a change in district title only, with no change in the regulations themselves.

The Rural Preservation 2 district would be identical to the existing AG district, with the exception of changing the minimum lot area requirement from 3 acres to 5 acres, and maximum development density to 1 unit per 5 acres.

• development of "form-based" zoning regulations for the Village area, as recommended in the Ada Village Design Charrette Final Report.

This task is already underway, under the guidance of a with the assistance of a consultant.

• development of new zoning district for the south side of Fulton St., from Kulross to Alta Dale Ave.

The Vision Statement and Future Land Use Map acknowledge the continuing transition of land use in the Fulton St. business corridor on the south side of M-21, between Kulross Ave. and Alta Dale Ave., toward more office and distribution uses and away from manufacturing. However, this corridor is also viewed as being an important location for small manufacturing operations, provided there is conformance with strict performance standards. Implementing this vision for the highway corridor calls for revising the zoning rules applied to the area, to establish such standards and provide for more scrutiny of manufacturing uses, through special use permit provisions.

The above changes in zoning regulations and district designations, carried out on a large-scale, Township-wide basis in accordance with an overall plan, are generally considered to be "legislative" actions that do not require individual property owner notification. Input from Township legal counsel regarding proper procedures to be followed with respect to notification should be obtained.

Rezoning of individual properties, on a case-by-case basis, where the current zoning does not conform to the Master Plan:

A review of the adopted Zoning Map reveals a few cases in which the current zoning of land is contrary to the desired land use pattern expressed in this Master Plan. In some cases, the land in question is vacant, or has been developed for a use which would be more consistent with a different zoning classification. In others, it has been developed for a use consistent with its current zoning, but which is contrary to the Master Plan.

Within a reasonable time following adoption of this Plan by the Planning Commission, the Commission intends to conduct a thorough review of existing zoning designations, and propose rezoning of such properties to zoning classifications which are consistent with the Master Plan. The Commission will give consideration in this process to the reasonableness of any proposed rezoning, to the likelihood and feasibility of the property being developed and used as currently zoned, the potential economic impact of rezoning on the value of the subject property and the degree of adverse impact which would result to the surrounding area if the property were used as currently zoned.

The Master Plan identifies some areas of the Township where potential for redevelopment for a different use or higher density in the future is acknowledged, but for which there is no immediate Future Land Use Map designation or immediate rezoning proposed. No short-term implementing action by the Township is required in these cases.

Other needed modifications to the Zoning Ordinance are identified in the following table, along with suggested timeframes for their accomplishment, and designation of the person or group responsible for the action.

Other Implementation Needs

The following strategic actions have been identified as needed steps to help facilitate the achievement of the community goals expressed in this Plan.

TABLE 14 - MASTER PLAN IMPLEMENTATION PRIORITIES AND RESPONSIBILITIES

ACTION	TIMEFRAME	RESPONSIBILITY
ZONING ORDINANCE AMENDMENT NEEDS AND OTHER REGULATORY NEEDS	3	
• Rezone specific properties to the PUD District, in cases where the underlying Zoning District does not assure development in accordance with Master Plan goals and policies, and where a higher degree of control of development design than is possible under the conventional zoning is desired. Candidate sites should include land planned for commercial use along the Pettis Ave. corridor, between Honey Creek Ave. and Vergennes St., commercial land within the Ada Village area, and Office-Service zoned lands along Cascade Rd.	1 year or less	Pl. Comm./ Township Board
• Give consideration to rezoning of land which is not zoned in conformance with the Master Plan.	1 year or less	Pl. Comm./ Township Board
 Revise sign regulations to allow limited use of temporary business signs. 	1 year or less	Pl. Comm./ Township Board
 Amend the building height regulations for residential buildings, to reduce the frequency of residential building height variance requests. 	1 year or less	PI. Comm./ Township Board
 Adopt property maintenance and lawn maintenance regulations. 	1 year or less	Township Board
 Strengthen zoning rules governing location and screening of outdoor storage areas in Industrial districts. 	1 year or less	PI. Comm./ Township Board
 Revise regulations on keeping of large animals (horses, etc.) to provide lot-size based standards in the rural areas of the Township. 	1-3 years	PI. Comm./ Township Board
Adopt exterior lighting regulations.	1-3 years	PI. Comm./ Township Board
 Adopt tree protection regulations. 	1-3 years	PI. Comm./ Township Board
 Adopt zoning standards providing for protection of groundwater quality and control of hazardous substances. 	1-3 years	PI. Comm./ Township Board
 Conduct a comprehensive review and update of the Zoning Ordinance. 	1-3 years	PI. Comm./ Township Board
COMMUNITY FACILITY IMPROVEMENT NEEDS		
• Complete an engineering study of the cost and feasibility of extending public sanitary sewer service to the concentration of businesses located on the east side of the Grand River on Fulton St. and Pettis Ave.	1 year or less	Township Board
 Complete improvements identified in the Ada Township Community Recreation Plan. 	Refer to Recreation Plan	Refer to Recreation Plan
 Complete public facilities identified in the Ada Village Design Charrette Final Report. 	Refer to Charrette Final Report	Refer to Charrette Final Report

ACTION	TIMEFRAME	RESPONSIBILITY
LAND PRESERVATION ACTIONS		
 Acquire high priority open space lands using the priorities and acquisition criteria contained in the Open Space Preservation Plan 	Ongoing	Open Space Preservation Advisory Board/Township Board
• Encourage preservation of agricultural lands in the Township, particularly in the area designated "Agricultural Preservation " on the Future Land Use map, by offering local matching funding for applicants to the Kent County Purchase of Development Rights (PDR) Program.	Ongoing	Open Space Preservation Advisory Board/Township Board
ROAD IMPROVEMENT NEEDS		
• Replacement of M-21 Bridge over the Grand River, to include a dedicated pedestrian/bicycle lane.	1-3 years	Michigan DOT
• Conduct signalization study of M-21 to evaluate need for signals at Kulross and/or Carl Drive.	1 year or less	Township Board / MDOT
COMMUNITY APPEARANCE/AESTHETICS		
• Undertake efforts to improve the aesthetic appearance of the western "gateway" to the Township on M-21 (Fulton St.), including encouraging Consumer's Power to upgrade landscape screening around the Spaulding Ave. electrical substation.	1 year or less	Planning Commission

ADA TOWNSHIP MASTER PLAN, 2007

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ADA TOWNSHIP MASTER PLAN PUBLIC OPINION SURVEY - JULY-AUGUST, 2004 GRAPHIC SUMMARY OF SURVEY RESULTS

	-		Strongl	y Disagre	Strongly Disagree/Disagree				Agr	Agree/Strongly Agree	gly Agree	[
Please indicate your agreement or disagreement with the following statements.	No Opinion -12	-120%	-100%	-80%	%09 -	-40%	-20%	%0	20% 40%		60% 80%	100%
17. Controls on outdoor lighting of businesses, schools and churches is needed, to protect surrounding areas from lighting glare and interference with viewing the nighttime sky.	10.4%						-5.6412.6%		39.0%	32.4%	~	
10. Ada Township needs a pharmacy.	8.4%						. <mark>9.8%</mark> -18.1%		42.6%	21.1%		
2. Ada Township needs more family/full-service restaurants.	5.0%					<mark>-15.5%</mark>	-20.0%		43.2%	16.2%		
3. Ada Township needs more small retail stores, such as specialty shops, gift shops and art galleries.	8.9%					-12.0%	<mark>%</mark> -22.8%	,	40.5%	15.8%		
11. Business and professional office development should be encouraged in Ada Township.	7.8%					-18.2%	-25.8%		41.7%	6.5%		
16. Retail businesses should be allowed along Fulton St., between Alticor and Forest Hills Ave.	7.4%					-24.6%	-22.3%	3	38.4%	.2%		
5. Ada Township needs a large grocery store.	3.1%					-37.0%	-22.9%	25.5%	% <mark>11.5%</mark>			
7. Ada Township needs transit service to Downtown Grand Rapids.	17.6%					-20.8%	-26.7%	27.7%	% 7.2%			
6. Ada Township needs more housing for elderly and retired persons.	23.4%					-16.6%	-25.7%	28.8%	% 5 <mark>.5</mark> %			
14. A small neighborhood commercial center should be encouraged in the vicinity of the Egypt Valley Ave./ Knapp St. intersection.	23.5%					-23.7%	-20.8%	27.2%	<mark></mark> 2 %			
8. Ada Township needs housing that is more affordable than is currently available in the Township.	10.9%				-29.6%	%	-34.1%	18.3%	7.2%			
9. Ada Township needs a small hotel in the Ada Village area	10.7%				-34.0%	%	-31.0%	20.7% 3. <mark>5</mark>	3.5			
12. Additional light industrial development, such as light manufacturing and warehousing, should be encouraged in Ada Township.	7.1%				-35.6%		-34.0%	20.0% 3. <mark>3</mark>	ň			
 Additional land is needed for service businesses, such as hair salons/day spas, dry cleaners packaging and document processing centers. 	9.9%				-26.9%	7	-46.3%	15.6%				
1. Ada Township needs fast-food restaurants.	3.2%				-49.5%		-30.9%	12.0%. <mark>4</mark> %				
15. To help make housing more affordable in Ada Township, lot size requirements in areas served by public water and sewer should be lowered from the current requirement of about 1/3 acre (13,500 square feet) to about 1/4 acre (about 11,000 square feet).	7.8%				-50.9%		-27.0%	10.9% <mark>.5</mark>				
4. Ada Township needs a large discount mass merchandise store, such as a Meijer or Walmart store.	1.3%			-	-74.6%		-16.9%4	4 25 <mark>0</mark>				
	-	-		Disadree		Strongly	Stronolv Disadree			Stronolly Aaree		-

Disagree Strongly Disagree Agree Strongly Agree

				Disadree		Strongly Disagree		Adree	Strong	Stronalv Aaree		
				20182012				20181				
			Strongly	Strongly Disagree/Disagree	sagree				7	Agree/Strongly Agree	Agree	
Do you agree or disagree with each of the following statements? Please mark the one choice which most closely corresponds to your opinion on each statement.	No Opinion	-100%	-80%	-60%	-40%	-20% (×0	20%	40%	60% 80	80% 1(100%
26. Zoning rules to require "no-disturb" and "ho building" zones within a certain distance of rivers, creeks, wetlands and other sensitive natural features are necessary to protect the Township's important natural features.	3.6%					-4 <mark>.3</mark> 768%		37.1%	-	47.1%		
25. Efforts should be made to retain agricultural land in Ada Township.	6.9%					-1. <mark>97//6°</mark>		40.2%		43.3%		
28. Regulations on clearing of woodlands and other significant vegetation are needed in the Township.	0.4%					-8.1%-13.5%		37.4%	33.	33.7%		
19. A noise control ordinance is needed in the Township.	12.7%				Ÿ	- <mark>5.2</mark> %-18.2%	4	40.9%	23.0%	%		
24. Limits on use of outdoor lighting in residential and rural areas are needed, to protect the visibility of the nighttime sky, and to avoid negative impacts of light glare.	10.6%				<u> </u>	8.4% -17.7%	36	36.5%	26.8%	%		
18. Wetland areas that are regulated by the Michigan DEQ should also be subject to Township regulations.	14.4%					. <mark>9.7%</mark> -14.7%		41.1%	20.0%	%		
23. There is a need for more non-motorized trails in Ada Township.	9.2%				-17.9%	-26.2%	28.2%		18.5%			
27. There is a need for a new bridge over the Grand River between Ada and Lowell, to connect Fulton St, with 1-96 and/or the proposed South Beltline freeway.	20.1%				-14.0%	<mark>%</mark> -19.7%	26.4%		19.8%			
 Public transit service (GRATA) should be provided between a park-and-ride lot in Ada and Downtown Grand Rapids. 	18.3%				-14.6%	-23.8%	34	34.4% 8	8.8%			
30. There is a need for housing for senior citizens in Ada Township.	25.5%				-16.0%	-23.9%	29.0%	% 5 <mark>.5</mark> %				
 Ada Township should encourage the availability of more moderately-priced housing in the community. 	9.5%			-28.8%	~	-33.3%	21.9%	6.6%				
22. I would like to see sidewalks installed along the street in my neighborhood.	10.5%			-36.0%	~	-30.0%	11.4% <mark>12.2%</mark>	2%				
21.1 would use public transit (GRATA) service between a park-and-ride lot in Ada and Downtown Grand Rapids, if it were provided.	13.4%			-34.5%		-32.4%	14.9%4 <mark>.8</mark> %	ĉ				
29. More land should be provided in the Township for multiple-family housing, such as apartments and condominiums.	4.3%			-57.1%		-28.1%	7.92/C					
				Oppose	Stror	Strongly Oppose		Support	Str	Strongly Support	T	

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			Very Uni	Very Unimportant/Unimportant	nimportan	t		Import	Important/Very Important	nportant		
How important are each of the following types of public facilities and services to vou?	No Opinion	10001	7000	7003	7007	50 700C	7000	7007	2007	70 00	1000	2
			°/00-	°/ no-	-40 %							٩
35. Fire protection	2.2%					-00 <mark>8</mark>	% 41.1%	1%		53.9%		
41. Police protection	1.3%					-1-	%	42.9%		50.7%		
37. Emergency medical services	2.6%					-1. <mark>-77.0</mark> 0		47.6%		41.0%		
39. Control of invasive insects, such as gypsy moths, and emerald ash borer	5.9%					-2 <mark>.5</mark> %1%		52.3%		30.1%		
34. Purchase of land for open space preservation	5.2%					- <mark>6.7%</mark> -16.1%	41.3%	3%	30.7%			
32. Improvements to existing parks	5.8%				т 	- <mark>5.2</mark> % -20.5%		53.5%	15.	<mark>15.1%</mark>		
40. Control of invasive plants, such as garlic mustard and purple loosestrife.	9.2%				•	-4 <mark>.0</mark> % -20.0%	45	45.7%	21.1%			
44. Non-motorized trails for bicyclists/pedestrians.	5.8%				<mark>-12.8%</mark>	<mark>8%</mark> -20.6%	39.4%	%	21.4%			
38. Storm drainage improvements	19.0%				Ť	5 <mark>.1</mark> % -20.7%	43.	43.1%	12.1%			
33. Purchase of land for new parks and neighborhood playgrounds.	6.3%				-11.8%	-29.9%	38.1%		13.9%			
36. A library branch in Ada Township	5.1%				<mark>-13.5%</mark>	-32.3%	33.9%		15.2%			
43. Bridge for walkers/bikers over the Grand River near Fulton St.	11.0%				-14.1%	-28.2%	32.0%	14.8%	%			
42. A community center for public events and available for rental use by Township residents.	8.9%			-18.5%	%	-38.5%	27.5%	6 <mark>.7%</mark>				
				Unimportant		Very Unimportant	portant	Important	ortant	Very	Very Important	

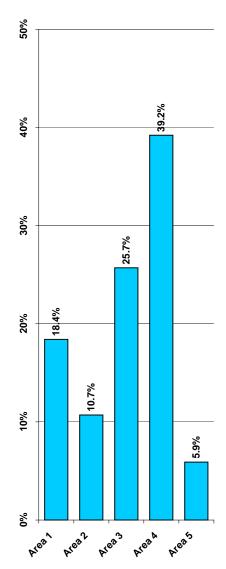
			Very Un	important/	Very Unimportant/Unimportant	t		Imj	Important/Very Important	/ Importan		
How important are each of the following factors in contributing to your decision to live in your current location in Ada Township?	No Opinion	-100%	-80%	% 09-	-40%	-20%	%0	20% 4	40% 60	60% 80%	% 100%	%
51. Personal safety and low crime rate.	0.5%					4	-1218%	34.7%		61.5%		
53. Surrounding open space.	1.8%					-1 48/20	2.0	37.9%	- 47 -	52.7%		
54. Small-town character of Ada Village.	1.9%					-1. <mark>7</mark> -863%		35.3%	52	52.8%		
55. Lower property taxes compared to other locations.	8.0%					-2 <mark>.8</mark> %-18.1%		36.6%	34.5%			
49. Your choice of school district in which to live.	4.0%					<mark>-9.6%</mark> -16.0%		26.6%	43.7%			
56. Quality and darkness of the night sky.	5.5%					- <mark>5.8%</mark> -19.7%		39.4%	29.6%			
61. Ease of commuting to Work	4.6%				<u>نې</u>	<mark>6.4%</mark> -21.3%		46.3%	21.4%	6		
52. Sense of neighborhood and interaction with neighbors.	2.4%				-6.6%	<mark>6 -24.0%</mark>		42.4%	24.6%			
57. Proximity to river, creek or other natural water feature.	4.5%				-4 <mark>.3</mark> %	6 -26.0%		38.2%	27.1%			
60. Seclusion from neighbors.	4.3%				-4 <mark>.2</mark> %	-27.3%		37.7%	26.5%			
59. Surrounding farmland	4.5%				-5.8%	-26.5%		38.8%	24.4%			
58. Proximity to parks.	3.6%				- <mark>5.6%</mark>	-31.1%		43.3%	16.4%			
47. Proximity to work location.	4.8%				-11.1%	-33.3%		34.0%	16.8%			
48. Proximity to school building.	6.2%				-15.2%	-34.1%	3	31.5% 13.	13.0%			
50. Proximity to commercial services.	2.3%			-11.3%	-	-45.5%		35.8% 5	5.1%			
				Unimportant		Very Unimportant		Important		Very Important		

Very Important Important Unimportant Very Unimportant

			Str	Strongly Oppose/Oppose	se/Oppose			Impo	Important/Very Important	mportant		
A variety of regulatory tools are available to manage the type and design of new development. Please indicate your views about how some of these tools should be used in Ada Township. Mark only one response for each item.	No Opinion	-100%	-80%	% 09-	-40%	-20%	0%	20% 40%	% 60 %	80%	100%	
68. Strictly controlling the size and number of signs in commercial areas.	5.1%					-1. <mark>66.0</mark>	0	45.5%		42.9%		
64. Requiring large lot sizes in rural areas to help preserve rural atmosphere.	4.5%					-2 16,9%	<mark>%</mark> 33.1%	~	53.5%	%		
66. Regulating the architectural style and appearance of new buildings in the Township.	8.0%					- <mark>6.8%</mark> -19.1%	4	43.1%	23.4%			
67. Restrictions on placement of homes on prominent hilltops, to protect scenic views in the Township.	12.0%					- <mark>6.1%</mark> -19.1%	37.7%	7%	25.0%			
65. Reducing lot size requirements in rural areas to encourage more affordable housing.	5.5%			-46.3%	-	-36.0%	9.5°2.7%					
			Oppose		Strongly Oppose	Oppose	Support		Strongly Support	pport		

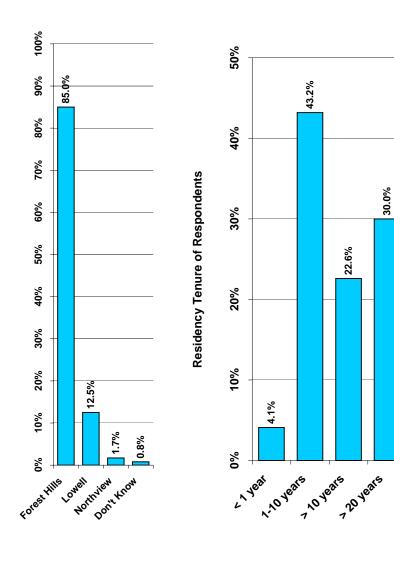
Identify which part of the Township you live in, using the number-keyed areas (1 through 7) outlined on the map on the back page of the survey.

Residency Location of Respondents



In which school district do you live?

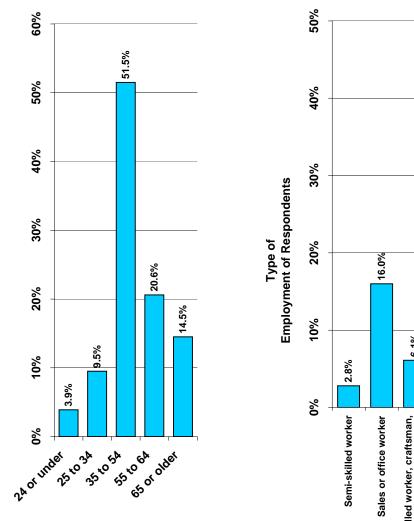
School District of Respondents



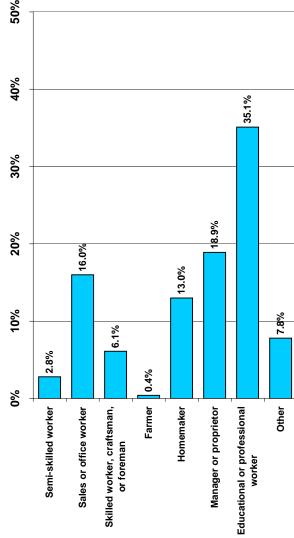
How long have you lived in Ada Township?

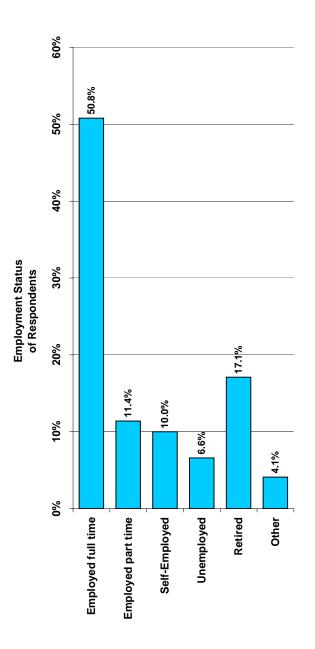
In which of the following age groups do you fall?

Age of Respondents



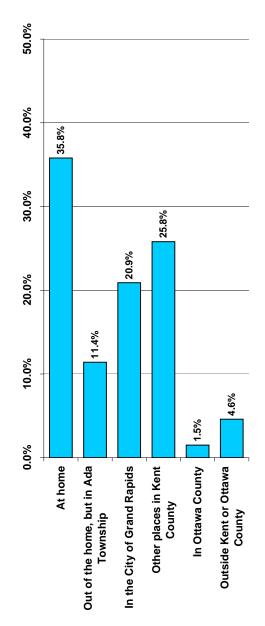
Which of the following categories best describes your normal or most recent employment? Check only one category.





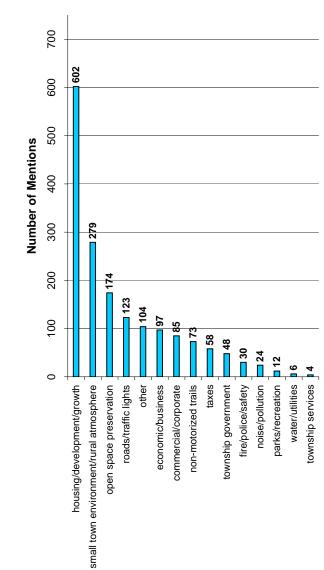
Indicate where you spend most of your working or daytime hours. Check only one category.

Work Location of Respondents



What is your current employment situation? Check only one category.

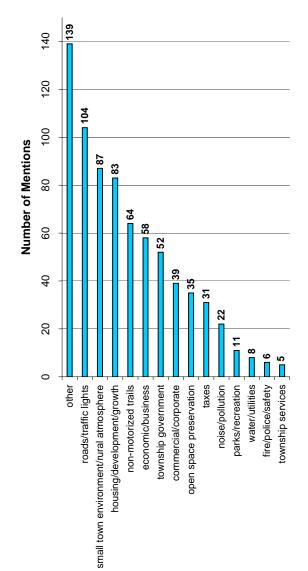




Most Important Problem/Issue Responses

Subject of Open-Ended Comments

Subject of Open-Ended Comments



ADA TOWNSHIP MASTER PLAN

CITIZEN SURVEY

The Ada Township Planning Commission is currently reviewing and updating the Township Master Plan. The Master Plan establishes growth management goals, policies and strategies for the Township. This survey is being conducted to take into consideration the current views of Township residents regarding a variety of growth and development issues. The results of this survey will supplement and be used with the results of a similar survey conducted in 1993.

You can assist in this effort by taking a few minutes to complete the survey. Your name is not needed on the survey, so you may respond knowing that **your views will be kept strictly confidential.** Each person 18 years or older in your household may complete the survey. If you need additional copies of the survey form, you may pick them up at the Ada Township offices, or call the office at 676-9191 and we would be glad to mail them to you.

Please use the enclosed postage-paid envelope to return the completed survey. Please mail no later than Friday, July 30.

We greatly appreciate your valuable time in completing this survey. Your opinions are vital to the Master Plan update process.

Ada Township Planning Commission.

Note: You may wish to read through the entire survey before beginning to mark your responses. In addition, please note that the response items in this survey should not be taken as the Planning Commission's or Ada Township's advocacy of any particular position or recommendation regarding the topics covered in the survey.

1. The Ada Township Planning Commission is interested in your views regarding various types of development in the Township. Please indicate your agreement or disagreement with the following statements. Mark an X under one column for each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
Ada Township needs:						
fast-food restaurants.	\square_4	\square_3	\square_2	\Box_1	\square_9	1
more family/full-service restaurants.	\square_4	\square_3	\square_2	\square_1	\square_9	2
more small retail stores, such as specialty shops, gift shops and art galleries.	\Box_4	\square_3	\square_2	\Box_1	\square_9	3
a large discount mass merchandise store, such as a Meijer or Walmart store.	\Box_4	\square_3	\square_2	\Box_1	\square_9	4
a large grocery store.	\Box_4	\square_3	\square_2	\Box_1	\square_9	5
more housing for elderly and retired persons.	\Box_4	\square_3	\square_2	\Box_1	\square_9	6
transit service to Downtown Grand Rapids.	\square_4	\square_3	\square_2	\square_1	\square_9	7
housing that is more affordable than is currently available in the Township.	\square_4	\square_3	\square_2	\Box_1	□9	8
A small hotel in the Ada Village area	\square_4	\square_3	\square_2	\square_1	\square_9	9
a pharmacy.	\square_4	\square_3	\square_2	\square_1	\square_9	10
Business and professional office development should be encouraged in Ada Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	11
Additional light industrial development, such as light manufacturing and warehousing, should be encouraged in Ada Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	12
Additional land is needed for service businesses, such as hair salons/day spas, dry cleaners packaging and document processing centers.	\square_4	\square_3	\square_2	\Box_1	\square_9	13
A small neighborhood commercial center should be encouraged in the vicinity of the Egypt Valley Ave./ Knapp St. intersection.	\square_4	\square_3	\square_2	\Box_1	\square_9	14
To help make housing more affordable in Ada Township, lot size requirements in areas served by public water and sewer should be lowered from the current requirement of about 1/3 acre (13,500 square feet) to about 1/4 acre (about 11,000 square feet).	\square_4	\square_3	\square_2		\square_9	15
Retail businesses should be allowed along Fulton St., between Alticor and Forest Hills Ave.	\Box_4	\square_3	\square_2	\Box_1	\square_9	16
Controls on outdoor lighting of businesses, schools and churches is needed, to protect surrounding areas from lighting glare and interference with viewing the nighttime sky.	\square_4	\square_3	\square_2		\square_9	17

2. Do you agree or disagree with each of the following statements? Please mark the one choice which most closely corresponds to your opinion on each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
Wetland areas that are regulated by the Michigan DEQ should also be subject to Township regulations.	\Box_4	\square_3	\square_2	\Box_1	□9	18
A noise control ordinance is needed in the Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	19
Public transit service (GRATA) should be provided between a park-and-ride lot in Ada and Downtown Grand Rapids.	\Box_4	\square_3	\square_2	\Box_1	□9	20
I would use public transit (GRATA) service between a park-and-ride lot in Ada and Downtown Grand Rapids, if it were provided.	\Box_4	\square_3	\square_2		□9	21
I would like to see sidewalks installed along the street in my neighborhood.	\square_4	\square_3	\square_2	\Box_1	\square_9	22
There is a need for more non-motorized trails in Ada Township.	\Box_4	\square_3	\square_2	\Box_1	\square_9	23
Limits on use of outdoor lighting in residential and rural areas are needed, to protect the visibility of the nighttime sky, and to avoid negative impacts of light glare.	\Box_4	\square_3	\square_2		□9	24
Efforts should be made to retain agricultural land in Ada Township.	\Box_4	\square_3	\square_2	\Box_1	\square_9	25
Zoning rules to require "no-disturb" and "no building" zones within a certain distance of rivers, creeks, wetlands and other sensitive natural features are necessary to protect the Township's important natural features.	\Box_4	\square_3	\square_2		\square_9	26
There is a need for a new bridge over the Grand River between Ada and Lowell, to connect Fulton St. with I-96 and/or the proposed South Beltline freeway.	\Box_4	\square_3	\square_2		□9	27
Regulations on clearing of woodlands and other significant vegetation are needed in the Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	28
More land should be provided in the Township for multiple-family housing, such as apartments and condominiums.	\Box_4	\square_3	\square_2	\Box_1	\square_9	29
There is a need for housing for senior citizens in Ada Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	30
Ada Township should encourage the availability of more moderately-priced housing in the community.	\square_4	\square_3	\square_2	\Box_1	\square_9	31

3. How important are each of the following types of public facilities or services to you? Check only one column for each issue.

	Very Important	Important	Unimportant	Very Unimportant	No Opinion	
Improvements to existing parks	\Box_4	\square_3	\square_2	\Box_1	\square_9	32
Purchase of land for new parks and neighborhood playgrounds.	\square_4	\square_3	\square_2	\Box_1	\square_9	33
Purchase of land for open space preservation	\square_4	\square_3	\square_2	\Box_1	\square_9	34
Fire protection	\Box_4	\square_3	\square_2	\Box_1	\square_9	35
A library branch in Ada Township	\Box_4	\square_3	\square_2	\Box_1	\square_9	36
Emergency medical services	\Box_4	\square_3	\square_2	\Box_1	\square_9	37
Storm drainage improvements	\Box_4	\square_3	\square_2	\square_1	\square_9	38
Control of invasive insects, such as gypsy moths, and emerald ash borer	\square_4	\square_3	\square_2	\Box_1	\square_9	39
Control of invasive plants, such as garlic mustard and purple loosestrife.	\square_4	\square_3	\square_2	\Box_1	\square_9	40
Police protection	\square_4	\square_3	\square_2	\Box_1	\square_9	41
A community center for public events and available for rental use by Township residents.	\square_4	\square_3	\square_2	\Box_1	\square_9	42
Bridge for walkers/bikers over the Grand River near Fulton St.	\square_4	\square_3	\square_2	\Box_1	\square_9	43
Non-motorized trails for bicyclists/pedestrians.	\Box_4	\square_3	\square_2	\Box_1	\square_9	44
Other, not listed (Please identify)						
	\Box_4	\square_3	\square_2	\Box_1	\square_9	45
	\square_4	\square_3	\square_2	\square_1	\square_9	46

4. How important are each of the following factors in contributing to your decision to live in your current location in Ada Township?

	Very Important	Important	Unimportant	Very Unimportant	No Opinion	
Proximity to work location.	\square_4	\square_3	\square_2	\Box_1	\square_9	47
Proximity to school building.	\square_4	\square_3	\square_2	\Box_1	\square_9	48
Your choice of school district in which to live.	\square_4	\square_3	\square_2	\Box_1	\square_9	49
Proximity to commercial services.	\square_4	\square_3	\square_2	\Box_1	\square_9	50
Personal safety and low crime rate.	\square_4	\square_3	\square_2	\Box_1	\square_9	51
Sense of neighborhood and interaction with neighbors.	\square_4	\square_3	\square_2	\Box_1	\square_9	52
Surrounding open space.	\square_4	\square_3	\square_2	\square_1	\square_9	53
Small-town character of Ada Village.	\Box_4	\square_3	\square_2	\Box_1	\square_9	54
Lower property taxes compared to other locations.	\square_4	\square_3	\square_2	\Box_1	\square_9	55
Quality and darkness of the night sky.	\square_4	\square_3	\square_2	\Box_1	\square_9	56
Proximity to river, creek or other natural water feature.	\Box_4	\square_3	\square_2	\Box_1	\square_9	57
Proximity to parks.	\Box_4	\square_3	\square_2	\Box_1	\square_9	58
Surrounding farmland	\Box_4	\square_3	\square_2	\Box_1	\square_9	59
Seclusion from neighbors.	\square_4	\square_3	\square_2	\Box_1	\square_9	60
Ease of commuting to Work	\Box_4	\square_3	\square_2	\Box_1	\square_9	61
Other:						
	\Box_4	\square_3	\square_2	\Box_1	\square_9	62
	\Box_4	\square_3	\square_2	\Box_1	\square_9	63

A variety of regulatory tools are available to manage the type and design of new development. Please indicate your views about how some of these tools should be used in Ada Township. Mark only one response for each item.

	Strongly Support	Support	Oppose	Strongly Oppose	No Opinion	
Requiring large lot sizes in rural areas to help preserve rural atmosphere.	\Box_4	\square_3	\square_2	\Box_1	\square_9	64
Reducing lot size requirements in rural areas to encourage more affordable housing.	\Box_4	\square_3	\square_2	\Box_1	□9	65
Regulating the architectural style and appearance of new buildings in the Township.	\square_4	\square_3	\square_2	\Box_1	\square_9	66
Restrictions on placement of homes on prominent hilltops, to protect scenic views in the Township.	\Box_4	\square_3	\square_2	\Box_1	\square_9	67
Strictly controlling the size and number of signs in commercial areas.	\square_4	\square_3	\square_2	\Box_1	\square_9	68

Please tell us a few things about yourself, to help us better analyze survey results and determine the needs of Township residents.

6. Identify which part of the Township you live in, using the number-keyed areas (1 through 7) outlined on the map on the back page of the survey.

	I live in Area #	69
7.	In which school district do you live?	70
	\Box_1 Forest Hills	
	\square_2 Lowell	
	$\Box_3 \text{ Northview}$	
	\square_4 Don't know.	
8.	How long have you lived in Ada Township?	71
	\square_1 Less than 1 year	
	\square_2 1 to 10 years.	
	\square_3 Over 10 years.	
	\square_4 Over 20 years.	
<i>9</i> .	In which of the following age groups do you fall?	72
	\square_1 24 or under \square_4 55 to 64	
	\square_2 25 to 34 \square_5 65 or older	
	$\Box_3 35 \text{ to } 54$	
10.	Which of the following categories best describes your normal or most recent employment?	
	Check only one category.	73
	emi-skilled worker	
-	ales or office worker	
-	killed worker, craftsman, or foreman	
\Box_4 Fa		
\Box_5 H	omemaker	
\square_6 M	lanager or proprietor	

 \square_6 Manager or proprietor \square_7 Educational or professional worker

5.

\square_8 Other (Please specify)	74
11. What is your current employment situation? Check only one category.	75
□ ₁ Employed full time □ ₂ Employed part time □ ₃ Self-Employed □ ₄ Unemployed	
\square_5 Retired \square_6 Other (Please describe)	76
12. Indicate where you spend most of your working or daytime hours. Check only one category.	77
 □1 At home □2 Out of the home, but in Ada Township □3 In the City of Grand Rapids □4 Other places in Kent County □5 In Ottawa County □6 Outside Kent or Ottawa County 	

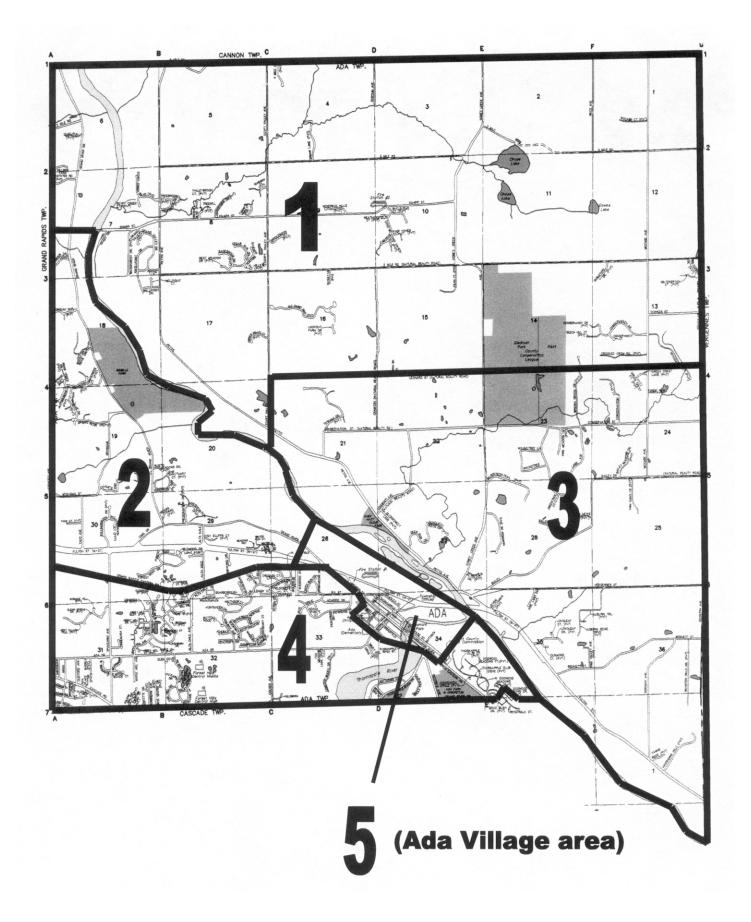
13. Please identify what you feel is the <u>single</u> most important problem or issue the Township Master Plan should address. 78

79

14. If you have any additional comments you would like to make, please let us know in the space below.

After completing the survey, please mail it to Ada Township in the postage-paid return envelope provided. You may also drop it off at the Ada Township Hall, 7330 Thornapple River Dr., from 8-5 weekdays, or place it in the after-hours drop box at the front door of the Township Hall. Please complete and return the survey by Friday, July 30.

Thanks for your time!





A RESOLUTION TO APPROVE THE ADA TOWNSHIP MASTER PLAN, 2007 ADA TOWNSHIP PLANNING COMMISSION ADA TOWNSHIP, KENT COUNTY, MICHIGAN

WHEREAS, the Michigan Zoning Enabling Act, P.A. 110 of 2006, states that the provisions of a municipal zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, and limit the improper use of land; and

WHEREAS, the Township Planning Act, P.A. 168 of 1959, as amended (Planning Act), requires the Planning Commission to make and adopt a basic plan as a guide for the development of the Township; and

WHEREAS, the Ada Township Planning Commission has prepared such a Plan to serve as a guide to the orderly growth and development of the Township; and

WHEREAS, after public notice in accordance with the Planning Act, the Planning Commission held a public hearing on September 20, 2007 and October 25, 2007 on the proposed Plan, for the purpose of presenting the proposed Plan to the citizens of the Township and receiving public comments and recommendations regarding the Plan; and

WHEREAS, the Planning Commission has duly considered the public comments received;

NOW THEREFORE BE IT RESOLVED

- 1. That the Ada Township Planning Commission hereby approves and adopts the Ada Township Master Plan, 2007, dated November 6, 2007, as the basic Plan for the Township as authorized and required by the Planning Act.
- 2. That the Secretary be directed to submit a copy of the Plan to the Ada Township Board, and that the Board be requested to approve the Plan as provided in the Planning Act.

At a Special Meeting of the Planning Commission of Ada Township, Kent County, Michigan, held in said Township on Tuesday, November 6, 2007, there were

PRESENT: Burton, Hoeks, Klaasen, Korth, Lowry, Sytsma ABSENT: Gutierrez

Upon a vote for the adoption of said Resolution, the vote was:

AYES: 6 NAYS: 0

The resolution was thereupon declared adopted.

Henry Hoeks, Secretary



ADA TOWNSHIP RESOLUTION R-111207-2 A RESOLUTION TO ADOPT THE ADA TOWNSHIP MASTER PLAN, 2007

At a Regular Meeting of the Township Board of Ada, Kent County, Michigan, held in said Township on Monday, November 12, 2007, at 7:30 p.m., there were:

PRESENT: Supervisor Haga, Clerk Millhuff, Treasurer Pratt, Trustees Sytsma, Proos, Damstra and Westra

ABSENT: None

WHEREAS, the Michigan Zoning Enabling Act, P.A. 110 of 2006, states that the provisions of a municipal zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, and limit the improper use of land; and

WHEREAS, the Township Planning Act, P.A. 168 of 1959, as amended (Planning Act), requires the Planning Commission to make and adopt a basic plan as a guide for the development of the Township; and

WHEREAS, the Ada Township Planning Commission has prepared such a plan to serve as a guide to the orderly growth and development of the Township; and

WHEREAS, after public notice in accordance with the Planning Act, the Planning Commission held a public hearing on September 20, 2007 and October 25, 2007 on the proposed Plan, for the purpose of presenting the proposed Plan to the citizens of the Township and receiving public comments and recommendations regarding the Plan; and

WHEREAS, in the process of completing the Plan, the Planning Commission duly considered the public comments received; and

WHEREAS, pursuant to Sec. 8(3) of the Planning Act, the Township Board, by Resolution No. R-061107-2, adopted June 11, 2007, has asserted its right to assume responsibility for final approval of the Plan,

NOW, THEREFORE, BE IT RESOLVED,

- 1. That the Ada Township Board hereby approves and adopts the Ada Township Master Plan, 2007, dated November 6, 2007, as the basic Plan for the Township as authorized and required by the Planning Act.
- 2. That the Secretary of the Planning Commission is hereby directed to submit copies of the adopted Plan to adjacent communities and other entities as required by the Planning Act.
- That the Ada Township Board hereby expresses its appreciation for the efforts of the Planning Commission in preparing the Master Plan.

The above resolution was offered by Member Westra, supported by Member Sytsma.

Upon a vote for the adoption of said resolution, the vote was:

AYES: 7 NAYS: 0 ABSENT: 0

The resolution was thereupon declared adopted.

Date: 11/12/2007

Deborah Ensing Millhuff, CMC

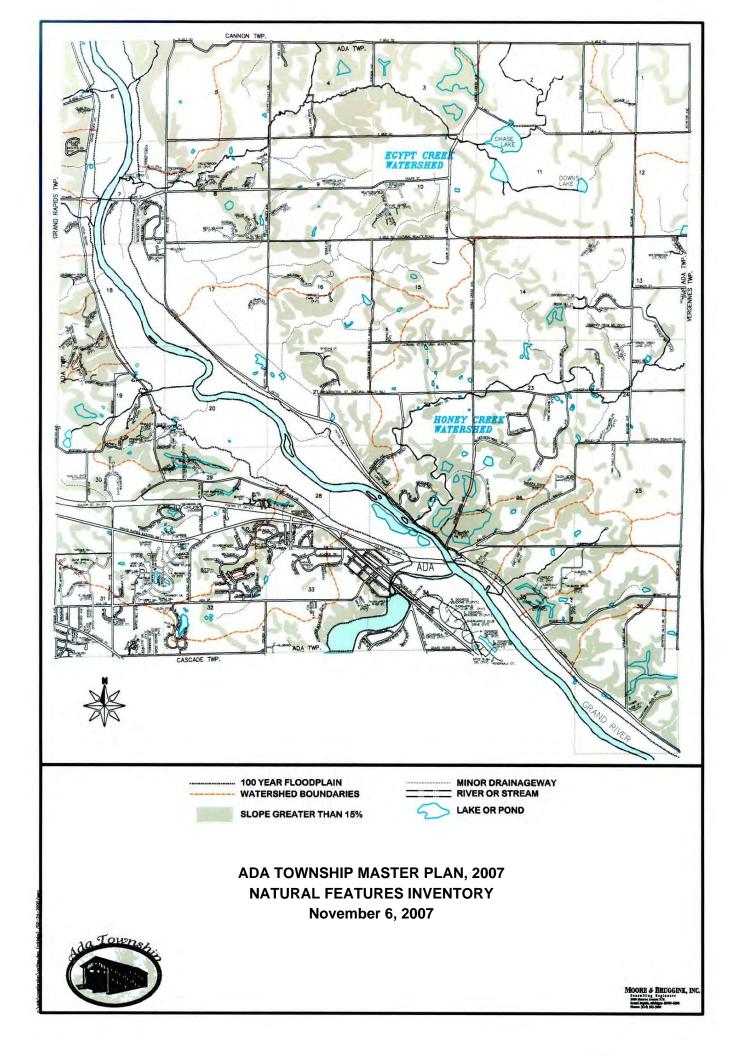
Ada Township Clerk

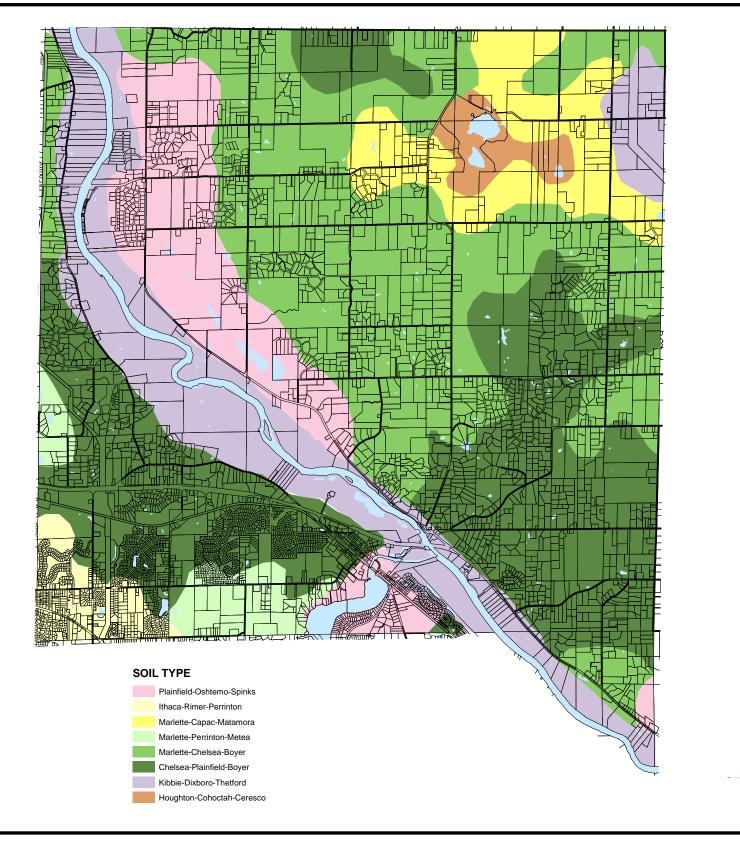
CERTIFICATION

I, HEREBY CERTIFY that the foregoing is a true copy of a resolution adopted by the ADA TOWNSHIP BOARD of the TOWNSHIP OF ADA at a regular meeting held on November 12, 2007.

Signed Deborah Ensing Millhuff, CMC Ada Township Clerk

DATE: November 12, 2007

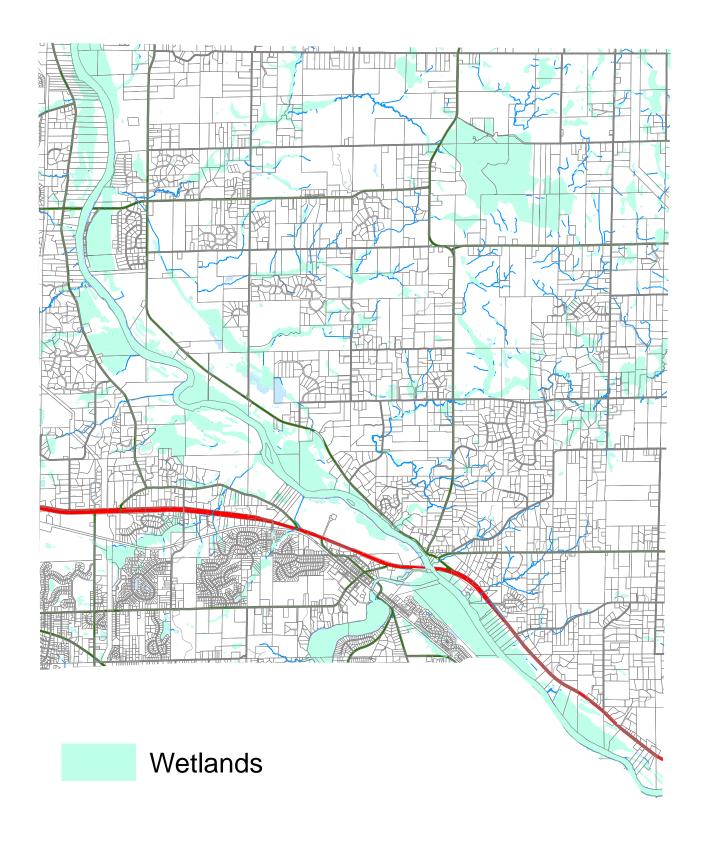




ADA TOWNSHIP MASTER PLAN, 2007 SOIL INVENTORY



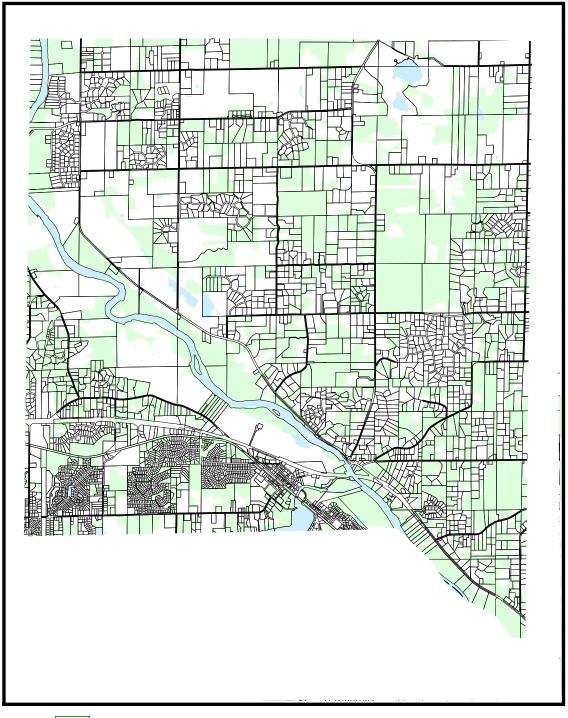






ADA TOWNSHIP MASTER PLAN, 2007 WETLAND INVENTORY



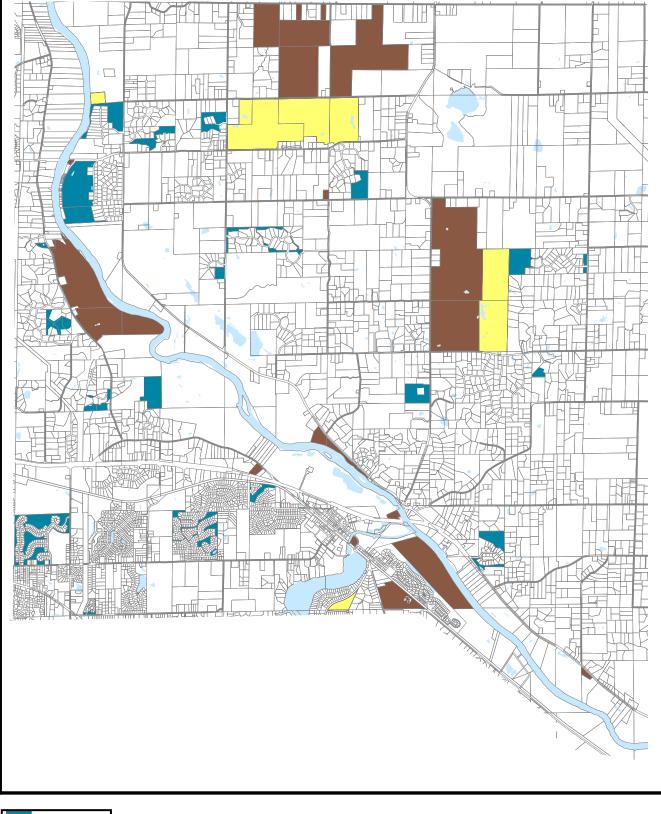


Forested Land

ADA TOWNSHIP MASTER PLAN, 2007 FORESTED LAND INVENTORY



REGIS

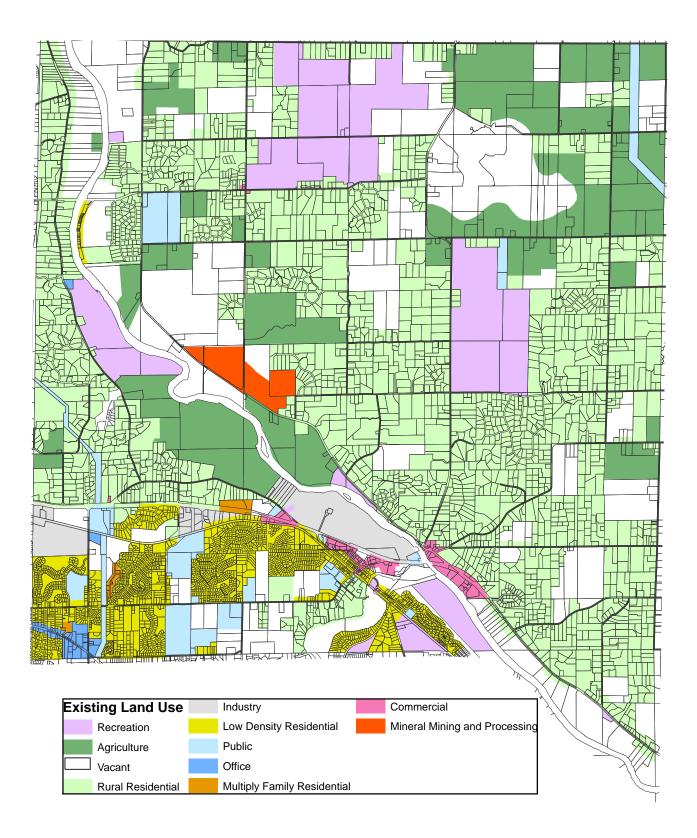




ADA TOWNSHIP MASTER PLAN, 2007 INVENTORY OF EXISTING OPEN SPACE



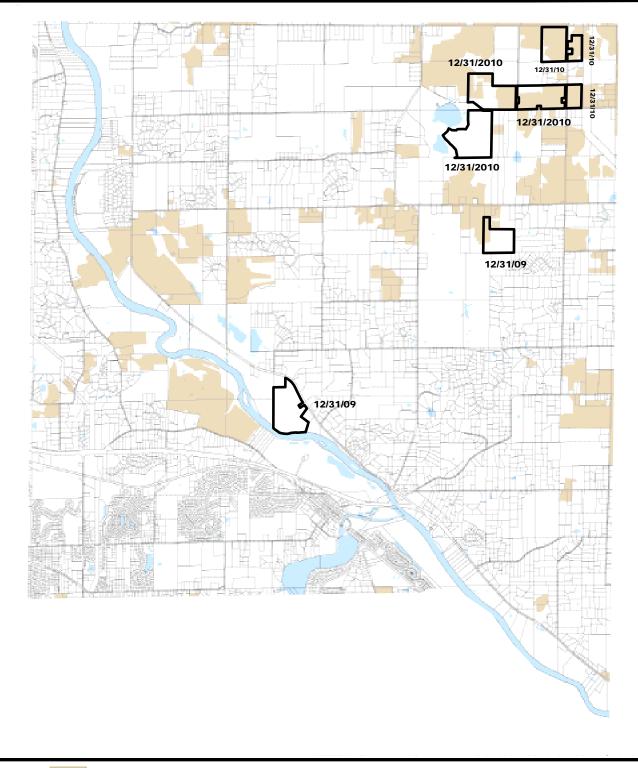




ADA TOWNSHIP MASTER PLAN, 2007 EXISTING LAND USE







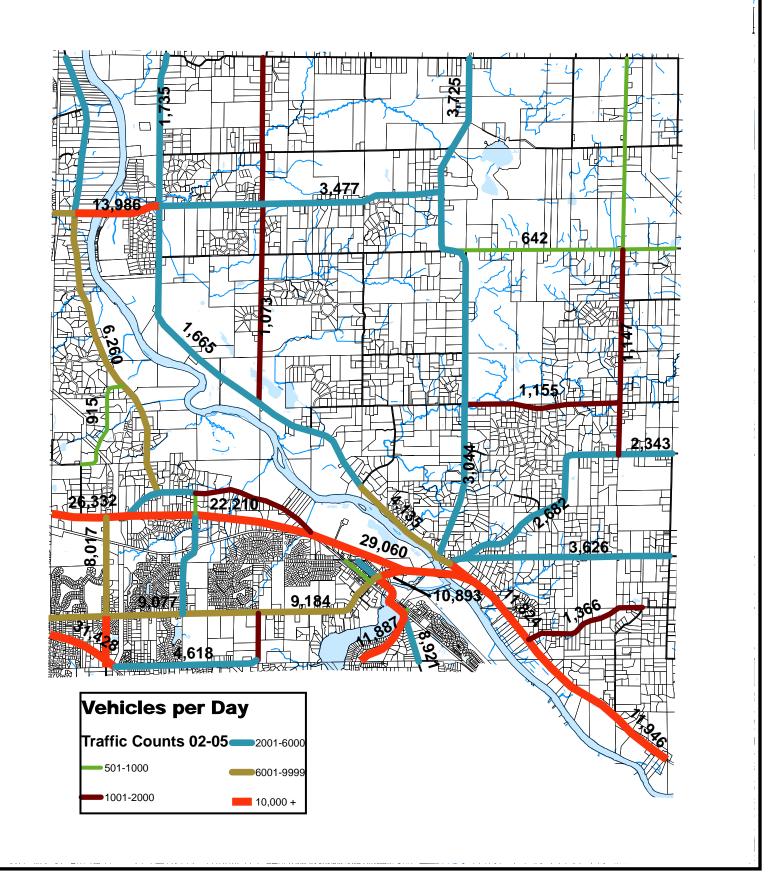
Agricultural Land

Land Subject to P.A. 116 Agreements (w/ Expiration Dates)

ADA TOWNSHIP MASTER PLAN, 2007 AGRICULTURAL LAND INVENTORY, 2003



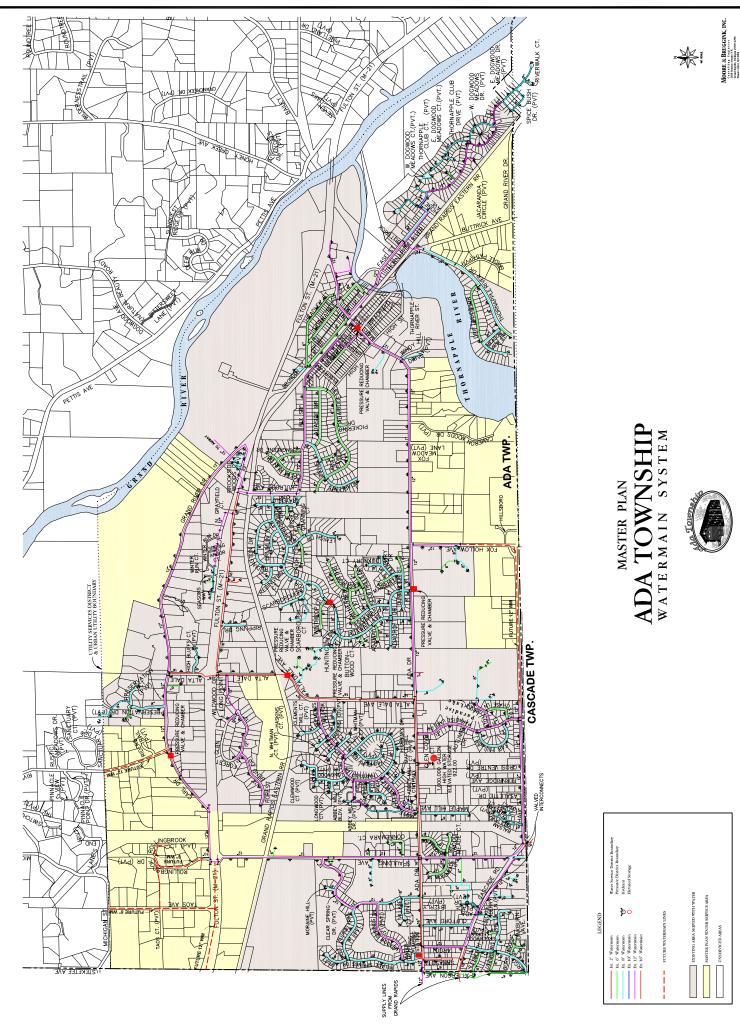


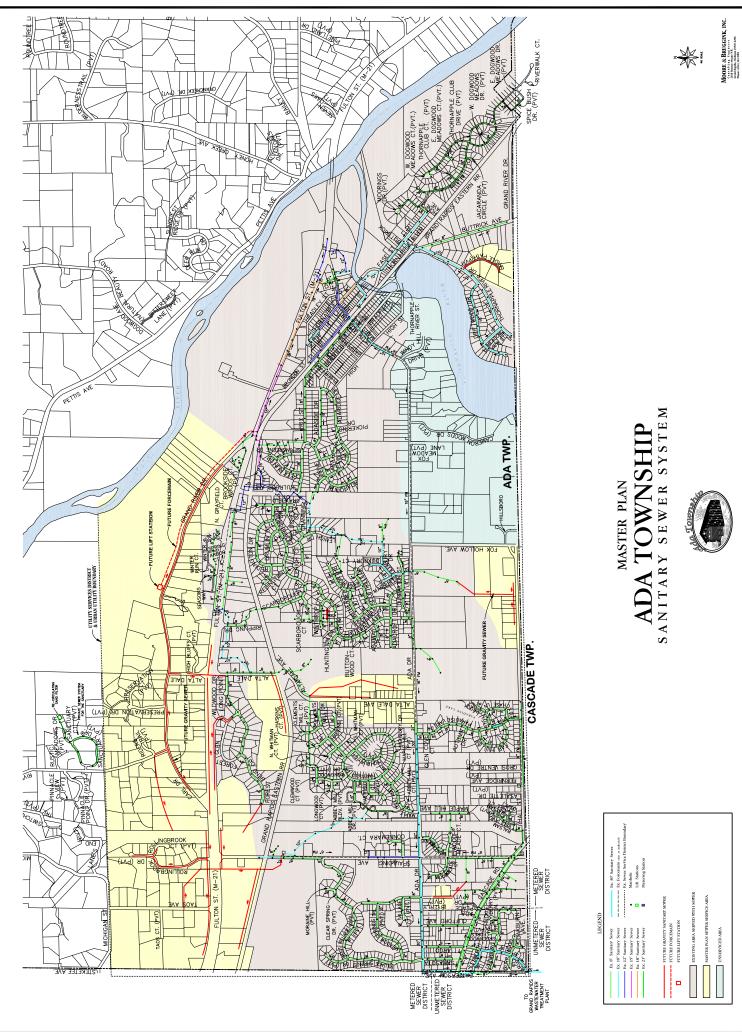


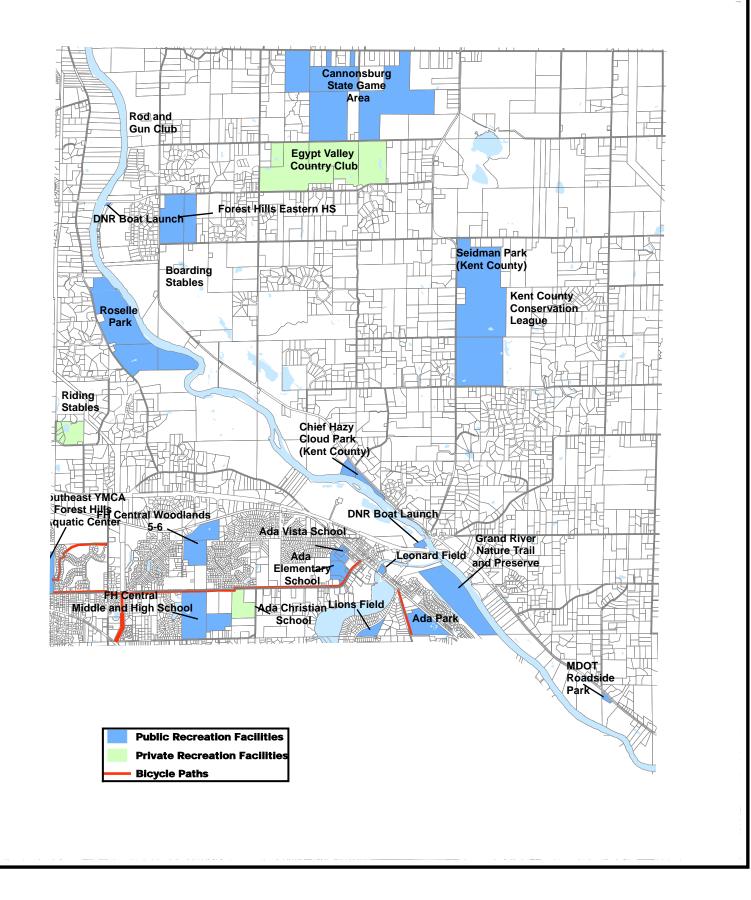


Ada Township Master Plan, 2007 Traffic Counts





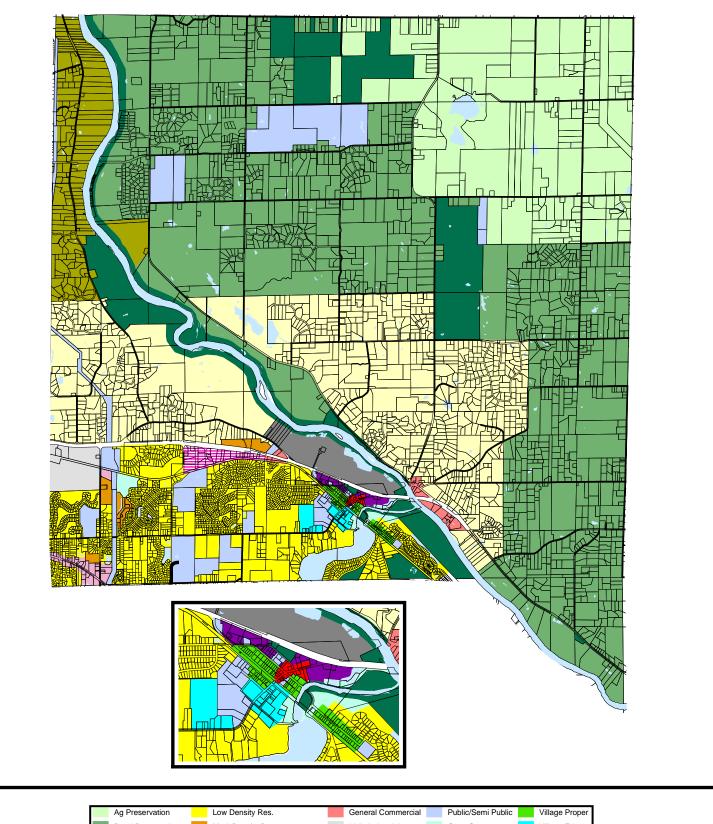




ADA TOWNSHIP MASTER, 2007 RECREATION FACILITIES INVENTORY







Ag Preservation	Low Density Res.	General Commercial	Public/Semi Public	Village Proper
Rural Preservation-2	Med. Density Res.	Light Industrial	Open Space	Village Edge
Rural Preservation-1	Office/Service	Industrial	Village Core	
Rural Development	Office/Service/Light Warehouse	Park/Recreation	Village Center	

ADA TOWNSHIP MASTER PLAN, 2007 FUTURE LAND USE



November 6th, 2007

